Production networks in the cultural and creative sector: case studies from the publishing industry

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Credits

Production networks in the cultural and creative sector: case studies from the publishing industry

Project name	Creative Industries Cultural Economy Production Network
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Responsible partner	SWPS University of Social Sciences and Humanities
Work package	The CICERONE project consists of seven work packages (WPs). This report is part of WP2, which constitutes the empirical backbone of the project. WP2 contains case study research that focuses on networked production in eight cultural and creative industries: 1) architecture, 2) archives (including libraries and cultural heritage), 3) artistic crafts, 4) audio-visual media (film, TV, videogames, multimedia) and radio, 5) design, 6) festivals, as well as performing and visual arts, 7) music and, 8) publishing. The purpose of the case study research is to understand key linkages and mechanisms within real-life production networks in the cultural and creative sector (CCS) and the relationships of these networks to context-dependent variables. Drawing on the case study research, the CICERONE project explores a policy framework that may contribute to enhancing policy support for the cultural and creative sectors. Furthermore, the case study research facilitates the identification of gaps in extant sources of quantitative data, suggesting approaches on how these gaps can be plugged. For this reason, WP2 is not just the empirical backbone of CICERONE, it also provides critical inputs for the work in other WPs (most notably WP4 and WP6). This deliverable (D2.8) reports on the case studies on the publishing industry. Together with the reports D2.1 to D2.7, it provides strategic snapshots of the rich and variegated tapestry of European production networks in the CCS. All the deliverables from the CICERONE project are publicly disclosed on the project's website www.cicerone-project.eu and through its Zenodo community on https://zenodo.org/communities/cicerone-h2020.

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Executive summary

This report is the final in a series of inter-related deliverables for Work Package 2 of the CICERONE project, focusing on case-study led analyses of distinct cultural and creative industries (that is, distinct production networks, through which flow particular goods and services, embedded in different cultural domains): architecture; archives and heritage; crafts; audiovisual; design; festivals and performing arts; music; and finally publishing. Publishing is an industry that seeks to organise processes of generating, reading and archiving ideas, captured in the written word, through the production and distribution of container texts: books, newspapers, magazines, journals and their digital derivatives. This report gives an overview of the industry as seen from the Global Production Network (GPN) perspective. We contextualise, quantify and explore case studies of the publishing industry beginning from principles based in the GPN theoretical framework but seek to develop and extend that framework in certain ways. We begin with a generic outline of the GPN approach, and the adaptations we make for the CICERONE project as a whole. The basic impetus here is to give equal sight to content origination, production, distribution, exchange and archiving, both in terms of the embeddedness of different forms of value (cultural and economic) in particular localities and its capacity to cross borders; to recognise the reflexive and relational nature of production as a 'cycle' (rather than linear 'chain'); and to seek appropriate modes of governance accordingly.

We then present an analysis over three parts, exploring the multiple, overlapping ways in which the publishing industry (or, more precisely, its 'production networks') remains hidden from view. First, while much of the public may be aware of best-selling novels and prize-winning authors, the industry that organises and co-ordinates writers and readers, and the practical steps of book making, printing, distributing and its digital counterparts – not to mention raw material extraction and waste, and the labour contained therein – are not so apparent. Part One of the report hence provides a 'first-pass' overview of the industry, based on existing knowledge, that builds an initial picture across all phases of the entire production network. Second, existing measures for measuring the industry are based on the manufacture of standardized physical goods which translate poorly to the cultural sector. Meanwhile, the industry itself conceives of, and reports on, its activities according to sub-industry divisions (educational, academic/professional, trade/consumer books, children and young adults) and media formats (physical books, journals/magazines/newspapers, digital content). While such subdivisions are constituted by meaningful historical and institutional logics, much of this self-reporting obscures as much as it reveals. Part Two therefore unpacks and explores statistical issues associated with a view based on standard industrial and occupational classifications, with a focus on the Eurostat database.

Finally, an additional barrier to understanding is the profound and rapid change which a range of publishing activities are currently undergoing. But the industry is not one of pure economic value; it is underpinned by cultural values as well. Our emphasis in this report – and hence our case study selection – responds to ongoing shifts over time across quite distinct typologies of network governance in relation to state/market (and civil society). This has particular consequence for forms of literary culture that are of special interest to forms of national cultural policy that have traditionally sought to protect and promote local tradition and diversity, in an increasingly globalised context. Equally, new and hybrid formats, emergent data-driven business models and a platform economy impacts the structure, organisation and power within and without the publishing industry, in ways that are particularly striking in scientific publishing. Hence, Part Three elaborates an in-depth qualitative analysis of two case studies that seek organisational strategies for navigating such changes and managing tensions over cultural-economic value: the Polish Nobel-prizewinning poet Wisława Szymborska gives an example of the creation and management of an unorthodox "human brand" in the world of independent trade publishing; and a British medical journal allows us to trace the network of scientific, technical and medical publishing. We end with some conclusions for how the GPN approach we take renders the European network of publishing amenable to new forms of analysis, research, policymaking and intervention in this industry.

Key words

Cultural and creative sector, CCS, Global Production Networks; Poetry; Publishing Industry; Scientific, Technical and Medical; Wisława Szymborska

Introduction

Publishing is an industry that seeks to organise processes of generating, reading and archiving ideas, captured in the written word, through the production and distribution of container texts: books, newspapers, magazines, journals and their digital derivatives. This report gives an overview of the industry as seen from the Global Production Network (GPN) perspective – giving equal sight to content origination, production, distribution, exchange and archiving, both in terms of the embeddedness of the value chain in particular localities and its capacity to cross borders. We then present an analysis over three parts. Part One of the report provides a 'first-pass' overview that builds an initial picture across all phases of the entire production network. Part Two unpacks and explores statistical issues associated with a view based on standard industrial and occupational classifications, with a focus on the Eurostat database. Building on these first two components, we then elaborate an in-depth qualitative analysis of two case studies in Part Three: the Polish Nobel-prizewinning poet Wisława Szymborska gives an example of the creation and management of an unorthodox "human brand" in the world of independent trade publishing; and a British medical journal allows us to trace the network of scientific, technical and medical publishing. We end with some conclusions for how the GPN approach we take renders the European network of publishing amenable to new forms of analysis, research, policymaking and intervention in this industry.

This report (D2.8) is the final in a series of inter-related deliverables for Work Package 2 of the CICERONE project. Our analysis of the publishing industry is founded on the theoretical framework of Global Production Networks and seeks to develop and extend it in certain ways. Accordingly, we begin with a generic outline of the GPN approach and the adaptations we make for the CICERONE project as a whole.

The CICERONE approach to production networks

The point of departure for the analysis of the Cultural and Creative Sector (CCS) is the Global Production Network (GPN) approach, which was developed by Neil Coe and Henry Yeung on the basis of the Global Value Chain (GVC) approach (Coe & Yeung, 2015; Kloosterman, Pratt, D'Ovidio, Greco & Borén, 2019). The GPN approach is increasingly used to unravel production networks that involve a complex cross-border spatial division of labour. Such production networks have proliferated across many sectors as a consequence of technological advances in communication and transport as well as due to the liberalisation and deregulation of trade (Kano et al. 2020). These processes have also affected (many) CCSs. However, the GPN approach has rarely been applied to them (Coe, 2015 is an exception). By opting for this innovative approach to the CCS, the CICERONE project generated new insights on its functioning.

In a sense, we have used the GPN method to spatialise. Sociological approaches were already proposed by Howard Becker (Becker, 1982), with his concept of the *art world*, and by Pierre Bourdieu (Bourdieu, 1996), who developed the concept of *field*. Both approaches, the differences between them notwithstanding (Buttero & Crossley, 2011), aim at embedding the process of creation into a broader societal setting and at going beyond the identification of individual genius. When we use the GPN approach, we cannot simply position the CCS in that broad context – we must also highlight its spatial footprint. We thus employ the GPN approach as a tool for analysing a wide variety of production networks in the CCS. In other words, the approach is a heuristic tool that explains how the products of the CCS progress from inception to sale and whether and how they may be preserved for future generations.

On the pages that follow, we first briefly summarise the key elements of the GPN approach that guided our fieldwork. Thereafter, we focus on the process by which we selected the units of analysis for our case studies. This section is followed by an explanation of the manner in which our case studies lays the foundation for a concise typology of the CCS which can be used by policymakers to devise more targeted combinations of interventions to foster economic growth and employment as well as social and cultural diversity.

Key elements of the GPN approach

Phases and the spatial footprint

Evidently, the most obvious feature of the GPN approach is the carving up of the value chain into distinct value-adding stages which can unfold in different locations and which may involve different sets of actors (including other firms). We have inserted the archiving phase into the value-adding stages because many (if not all) of those who participate in cultural and creative endeavours draw on the works of their predecessors in one way or another (Pratt, 1997). Therefore, in the CICERONE project, we, in principle, distinguish between the following stages:

1) Creation (the initial conception of an idea or a set of ideas that define aesthetic quality),
2) Production (the realisation of those ideas through an actual good or service),
3) Distribution (the sale of the good or the presentation of the service in front of an audience),
4) Exchange (the wider setting which enables distribution), and
5) Archiving (the formal preservation of the cultural product).

Creation

It is in this part of the cycle that new ideas, processes or approaches are devised. The notion of "creation", in the sense in which the term is used here, is a social one – what is new is also relational, situated and conditional. Therefore, a "creative process", that is, a method, is involved ("design" is an

example). Reference is also made to history and to previous instances of creation (the preceding stage). Sometimes, this is referred to as "ideation", that is, having ideas.

Production

An idea or a creative new thing remains provisional, potential and conditional until it can be stabilised or made. The intervening period is often called the prototype stage. Usually, the product is also developed during the multiple (or mass) production phase. Technology and labour costs, production decisions, and technological and regulatory standards affect costs and potential access to the products. Marketing and advertising are also relevant, but we allocate them to the exchange phase here.

Distribution or circulation

Products, even if they are new and unusual, are unformed and inaccessible unless they can be moved or migrated to markets or audiences. Physical distribution is clearly a key issue for access and reach. The same is true of digital approaches, which may overcome some barriers. Generally, distribution systems (or platforms) are expensive to develop and susceptible to monopoly control.

Exchange

Exchange is the stage at which the product of service engages the audience or customers. It is a critical moment of information exchange, and one in which (e)valuation occurs. That (e)valuation may take forms as varied as market transaction, participation or critique. Values are made and stabilised at this stage. Therefore, marketing and expectation setting provide a link to distribution. In the experience economy, and particularly in the cultural one, the negotiation of value is a critical element of the transaction, and institutions have been developed that normalise it and reduce risks. The engagement of the audience or consumer is also shaped directly by advertising and marketing – to refer to the previous stages once more, the exchange process can determine which products are available for production and distribution.

Archiving

Since cultural value is relational, history and cultural diversity always interact with the present. Moreover, the process of reflection and learning (or that of rejection) is part of the critical appreciation of culture. The archiving of culture creates both normative structures that enable cultural production systems and the disruptive elements that facilitate new approaches. This stage also includes education (of audiences or consumers as well as of creative practitioners), institutions such as universities and media systems, and repositories such as libraries, museums and galleries. It is at this point that heritage is identified and later mobilised via the production system. More generally, archiving constitutes the resource from which new ideas are developed, which refers back to creation.

Source: D'Ovidio et al., 2019

We treat this model of the phases as a *point of departure*, not as a given, and we employ the case studies to explore the extent to which these distinctions may explain production in the CCS. As Throsby (Throsby, 2010, p. 25) observed, in some production processes in the CCS, there is no simple and neat sequence, and "[t]he apparent linearity of the value chain may be replaced, for some cultural products, by something more akin to a value network, where multiple inputs, feedback loops, and a pervasive 'value-creating ecology' replaces a simple stage-wise process". Although he was rightly critical of the slavish application of a value chain approach to the CCS, he also observed that "[f]rom a policy point of view, depicting the cultural production process as a value chain allows an analysis of the effects of policy intervention at various points in the chain. For example, in assessing the impacts of existing policy measures, or in determining the optimal point at which to apply prospective measures, the policy analyst can use the value-chain concept to clarify where the effects of intervention have been or will be felt, and who are the affected stakeholders upstream or downstream from the point of intervention".

It therefore stands to reason that one should start with the conceptual framework of these stages and then determine which phases can be identified as distinct, which boundaries are blurred and which phases overlap or are deeply intertwined. Subsequently, we locate phases or combinations of phases – the spatial footprint – and we identify the parties that are involved. In this manner, we extend our focus beyond creation to include other parts of the input-output structure of the CCS.

Governance

The second element that we derive from the GPN approach and which we use to open the black box of the production network is the concept of governance. The complex global value chains and production networks which have been studied (mostly in manufacturing) typically exhibit asymmetrical power structures, with one lead firm engaging in explicit coordination (Gereffi, 2005). This lead firm may be involved in the production phase (producer-driven chain) or in the distribution phase (buyer-driven chain). If power dynamics are asymmetric and a lead firm takes charge of coordinating the network, it may be inferred that it is capable of forcing the other actors to act in a certain way but also that it can capture much of the value that is created in the network. Similarly to our approach to the stages, we do not take the existence of a lead firm in the CCS for granted. Instead, we attempt to identify a more explicit hierarchical power distribution or a more dispersed horizontal one. Furthermore, we do not assume that the presence of a lead firm or actor necessarily results in an asymmetrical distribution of (economic) value, and we examine this issue as a research question.

Embeddedness

The third element that we use to understand the production networks of the CCS is that of embeddedness. In his seminal work on the transformation of the British economy in the 19th century, Karl Polanyi (Polanyi, 1957) emphasised the importance of the institutional context in which all economic actions are embedded. In this context, differences in embeddedness affect economic actions, the likelihood of their occurrence, the manner in which they unfold and their consequences

(Granovetter, 1985). This view became widespread in economic sociology, organisation studies, strategic management (Smelser & Swedberg, 2005) and, somewhat later, in economic geography. The GPN approach explicitly aims to apply embeddedness to make sense of the spatial footprint of the production network: why are such-and-such activities located in such-and-such places? According to Kleiber and Horner (Kleibert & Horner, 2018), the operations of actors within the same universalistic category of a transnational production system is very much contingent on their embeddedness in a particular society, place and social network. Embeddedness thus becomes crucial for understanding the spatial and social division of labour within a production network. The forms of embeddedness are also critical for the design of effective policies for the CCS (Salder, 2022).

We have adopted the multi-layered approach to embeddedness that Coe and Yeung (2015) proposed. We therefore distinguish between three levels of embeddedness.

i. Societal embeddedness: the influence of institutional contexts on the actions taken by actors in production networks (rules, laws and regulations) which are mainly located at the EU level and the national level.
ii. Territorial embeddedness: the local context of the location where a certain activity takes place, which is closely related to local clusters and ecosystems with distinct sets of agglomeration economies that selectively sustain and foster economic activities (Scott, 2000).
iii. Network embeddedness: the linkages between different actors and the functional and social connectivity of those relationships (e.g. trust based social network relationships).

As with the phases, the boundaries between these forms of embeddedness are not set in stone. Place-based communities are an essential element of agglomeration economies, but they are also closely linked to social networks. We analyse these levels of embeddedness more comprehensively .

Unit of analysis

The CCS are characterised by their emphasis on unique aesthetic qualities and, importantly, on near-infinite horizonal differentiation (Caves, 2000), volatile (cross-sectoral) cooperation, and, crucially, forms of collaboration that are often ad hoc and usually involve several actors with different skills and functions. Those forms of collaboration often permeate the legal boundaries of firms. This particular way of producing involves, as a result, “complex teams – the motley crew property”, as well as “close temporal coordination of their activities” (Caves, 2000, p.8). Watson (Watson, 2012, p. 617) added that “[t]he complexity of the [jointly produced product or service] necessitates the coordination of multidisciplinary skills” and that permanent centralisation is not economically efficient (Lorenzen & Frederiksen, 2005). Production must often be completed under severe time constraints (Hobday, 2000; Staber, 2004) Temporary networks, interpersonal collaboration and projects in the CCS are therefore very much intertwined. As de Klerk (de Klerk, 2015, p. 829) observed, “*[t]he dynamic environment in the industry is mostly project-based… thus often obliging these workers to find alternative employment between projects to optimise their limited work opportunities. Bricolage*

results from working arrangements structured by festivals or special assignments where creative workers move in and out of networks as they are needed".

The GPN approach has mainly been used to analyse the large-scale production of goods. Some CCSs, such as parts of the fashion industry, seem to fit this format of production well. However, at least a some CCS activities are different from the usual subjects of the GPN literature, which tends to focus on production networks in which large firms manufacture large volumes of standardised goods. In other segments, small firms predominate. Instead of churning out many similar (tangible) products, they focus on creating products, such as goods and services, in small numbers (often just one) that require production networks to be more or less ad hoc. The composition of those networks typically fluctuates. A performance, a song or an album, a painting and the design of a theatre are all unique products which are typically created by such ad hoc production networks that vary from product to product (Power & Hallencreutz, 2002; Power & Jansson, 2004; Pratt, 2006).

It must be noted that projects in some CCSs are less volatile (for example, the spring and summer collection and the autumn and winter collection of a large fashion firm, which may involve the same designers, suppliers and sellers). Therefore, they resemble the type of networks which are prominent in the GPN literature. In other CCSs, such as architectural design or festivals, the composition of the networks is much more variable and contextual, and sequences of projects may have different networks and stakeholders.

In order to cover production networks in the CCS that are volatile and project based, we focus in most case studies on projects as a unit of analysis. This approach is very much in line with the literature on the forms of collaboration in the cultural and creative industries. In more recent economic-geographic studies and in sociological research on CCS, project-based work, which involves a multiplicity of organisational and personal social networks, is a key component of the analysis (see Watson, 2012 for a very thorough overview). Notably, studies on labour conditions in the CCS have benefited from departing from the project-based approach. The important role of project-based work has been corroborated in many CCSs (de Klerk, 2015).

In the CCS, then, the firm should not be granted a privileged ontological status. Instead, networks should be central. One could even go a step further and conceptualise the firm as a more permanent or sustained project or as a collection of long-term projects (although it is evidently subject to recombination and change) that has been solidified into a legal entity. The temporal dimension of the project and therefore of its network then become a crucial variable for the case studies. This shift evidently dovetails into our GPN approach, which emphasises the role of networks. In the CICERONE project, we conceive of these networks not *a priori* in terms of firms but in terms of interpersonal networks that are organised around a specific project. In *Art Worlds*, Howard Becker also highlighted interpersonal relationships (Becker, 1982). Our focus also allows us to emphasise the role of cultural value, which may trump economic value, and the salience of motives other than profit maximisation, especially in the creation phase. These distinguishing features of the CCS have significant consequences for the functioning of its production networks.

A more practical advantage of circling on specific projects is that it enabled us to select respondents more easily – we could simply focus on those individuals who were involved in a given project. It then also became easier to limit the number of respondents (only project-related key or lead actors or firms, strategic partners, strategic suppliers and key customers) that we had to consider.

Selection of cases

The main purpose of the CICERONE project is to provide a new foundation for CCS policies on the basis of a production network approach that generates novel insights on the functioning of the CCS and its cultural and social impact. Our approach situates the CCS in networks of production that extend far beyond the creation phase. We use case studies to map the configuration of production networks and to analyse relationships between actors in creation, production, distribution, exchange and archiving. The case studies are thus intended to uncover linkages and mechanisms within these production networks and to lay the foundation for more informed policies which not only extend beyond the creation phase but also take spatial footprints and governance structures into account.

Business models within the CCS vary widely. That variance obtains not only across industries but also within them. There are differences in staff numbers, turnover, type of products, barriers to entry, the use of technology, capital needs, end markets and strategies, to name but a few. Networks also differ in terms of power relationships, shape and organisation, and the nature, complexity and geography of their linkages. At present, no data sets cover these characteristics comprehensively. Representative sampling is certainly not feasible within the timeframe of the CICERONE project. The investigation of the variance in question, accordingly, is a voyage into uncharted waters.

We have therefore opted for a purposive selection of cases, whereby researchers select the units of analysis on the basis of their knowledge, which in our case is the background research that we conducted prior to the case studies. The aim of this selection was to include cases which may plausibly be assumed to cover a sufficient range of easily assessable variations in key business model characteristics, notably staffing and turnover. This approach yielded cases that typify a significant proportion of the population of the CCS while also exhibiting sufficient differences to account for variability (Gerring, 2007). In the case study reports that follow, each case study is positioned within the wider sector.

Typology matrix

While the case studies are intended to present a rich picture of the key mechanisms and the main linkages that show how spatial footprints, governance structures and levels of embeddedness are intertwined in real-life situations, a higher level of abstraction that transcends the study of individual production networks must be accessed if general insights are to be derived. We must simplify characteristics and relationships in order to present a clear narrative for policymakers. The key elements of our approach – spatial footprints, governance structures and multi-layered

embeddedness – guided us in reducing the complexity of the case studies so as to distil insights from findings.

The first step is to position concrete cases from the CCS in a simple grid which combines the spatial footprint with the governance structure. The two variables are crucial determinants of societal effects. A completely local production network with a horizontal governance structure and a mainly global and hierarchical network that is coordinated by a lead firm or actor differ starkly in their social, economic and cultural impact and in the policy interventions that they require. Furthermore, if creation is local but production and distribution are global, targeting policy only at the creation phase may have unforeseen consequences for the wider network.

In principle, the typology matrix of production networks distinguishes between different phases. Since these phases may overlap, as is the case of many forms of visual art, they may be merged. For each phase or set of phases, it is possible to determine whether a single actor is in charge of all activities. Different phases may then exhibit different governance structures. It may also be the case that one actor is ultimately in charge of the whole network and is clearly present in the coordination of each phase. Alternatively, a small number of actors may control the network. The typology matrix allows more nuanced representations of this kind. Using this typology matrix enables us to draw cross-sectoral comparisons between cases and therefore to depart from the conventional siloed approaches. We expect that certain combinations will transpire to be much more likely to occur than others: the likelihood of a small local network having a more horizontal governance structure is evidently much higher that of a complex and truly global network adopting such a form of governance, which requires much more extensive coordination.

CCSs are embedded in multi-layered contexts, which range from the EU and the national level to that of the territorial and social network. Our empirical work shows how these contexts affect individual cases. Cross-case analysis shows how the forms of embeddedness are related to the typology matrix more generally. Power relations, for instance, may also depend on institutional conditions. Those conditions may allow an actor to assume leadership or to take advantage of the network.

This typology matrix is a starting point for an exploration of the potential role of hard policy levers (e.g. tax breaks, subsidies and such like) and soft policy levers (e.g. strengthening the institutional framework, establishing platforms for collaboration, improving education and so on) that various policymakers at different spatial levels may in principle manipulate. Policy makers can use this typology matrix as a tool for assessing the key characteristics of the concrete CCS populations, which may be defined narrowly or widely, whose societal impact they wish to improve. Filling this typology matrix clearly also requires new sets of data which allow the larger CCS populations to be profiled.

The typology matrix is crucial to constructing an overarching narrative that transcends the idiosyncrasies of individual cases. Moreover, it supplies a basis for our policy recommendations, which are phase and location specific and must be sensitive to the organisation of network governance. We strove for high uniformity to enable comparisons. We present a guide to achieving that goal below.

It is often difficult to compress information for a whole production network on the spatial footprint dimension from the outset. Instead, we divide the network into phases and then locate the actors in each phase. This process yields a refined stepwise analysis of the production network. The next step is to summarise the findings for the whole network. Production networks may be local from the creation phase to archiving or global from start to finish. It may also be the case that creation and production are entirely local or regional but distribution and exchange are national or even global. Identifying such spatial footprints would convey important information to policy makers.

Similarly, we adopt a stepwise approach to assessing the organisation of network governance. For each phase, we inquire which actor initiates, organises, monitors and controls activities. It may be that one actor is in charge of the whole network. It may also be the case that two actors are in charge of different phases. A more horizontal governance configuration without clear leading actors is also a possibility. How policies impact production networks depends on their governance configurations. Throwing money at a specific cultural and creative industry which is controlled by a transnational corporation that is located outside the EU would be a different proposition from financing a network in which the leading actor is close to the others, in the same country or even in the same city.

We use the typology matrix to systematise the classification of the cases that we studied. This matrix must be completed by using the actor categories in Table 2. We use the labels from Table 2 to ensure consistency.

Table 1. The typology matrix

PRODUCTION NETWORK PHASES	Local/regional	National	Intra-EU	Global	GOVERNANCE
Creation					
Production					
Distribution					
Exchange					
Archiving					
Network level					Lead actor/multiple actors/horizontal

Table 2. Key actors in the production networks

Creators	Actors who participate in the initial creation (individuals, such as writers and musicians, or collectives, such as fashion brands and film crews)
Suppliers (specialised)	Suppliers that provide specialised/dedicated services or products and are hard to replace in the short term
Strategic partners (private sector)	Providers of strategic resources (capital, labour, knowledge and certifications) such as banks, educational institutions, professional associations, tastemakers and critics

Strategic partners (civil society)	Actors that operate at neither the state level nor the market level and which provide essential goods, services or resources (funding, labour, information and certifications)
Strategic partners (public sector, multilevel)	Public sector actors at the level of the EU, the national, the regional or the local government that provide strategic resources (e.g. funding and certifications)
Distributors	Actors (individual or collective) in charge of delivering the good or service to the customer or consumer
Consumers	B2C (business to consumer): final market with large number of buyers
Customer	B2B (business to business): final market, typically with a single buyer (e.g. real estate firm commissioning a design for a building)
Lead actor(s)	Actor(s) who initiates, organises, monitors and controls the activities of the network

Phases

We depart from the GPN approach with its five phases. In many cases, however, the phases overlap, and borders are blurred. Such issues can be addressed easily by merging the cells for phases that overlap or by drawing dotted lines if the phases are distinct but their boundaries are blurred.

The spatial scales

We distinguish between four scales: the local or the regional, the national, the intra-EU and the global. These scales, in principle, correspond to different policymakers and, in many cases, also to different policies (from local policies to provide workspaces through national subsidy programmes to EU competition regulations and trade policies). The anchor point for *the local or regional* scale is the point at which initial creation occurs, that is, the point at which the aesthetic component of the good or service is created. This spatial level may coincide with a particular city, a large metropolitan area or a rural region. The origin of the value chain may be located elsewhere, as in the case of architectural design, a domain in which the customer may be located across the globe. However, our focus here is on the first moves of concrete actors from a specific CCS. We then inquire, for each phase, where the other key actors in the production network are located. The location of an activity is where the actors are from: e.g., flying in a choreographer from Norway and a light engineer from Israel to create a modern dance work in The Hague is still a form of global import.

Governance

Governance pertains to the whole network. We distinguish between three options: a) networks with a lead actor, b) networks with multiple lead actors (not more than 2 or 3) and c) bottom-up horizontal arrangements.

PART 1. The European production network of publishing: an overview

1.1 Overview of the publishing industry

1.1.1 A profile of the industry

Publishing is an industry that seeks to organise processes of generating, reading and archiving ideas, captured in the written word, through the production and distribution of container texts: books, newspapers, magazines, journals and their digital derivatives. Just as there is much formal variety in the nature and genre of the ideas themselves (literary fiction, current affairs reporting, commentary and opinion, scientific findings), there is also variety in carrier formats (novels, reference works, daily newspapers, weekly magazines and comics), audiences and markets (general readerships, specialists, professionals, niches), in forms of organisation (self-publishing, small-scale independent publishing houses, transnational corporations) and creative labour (freelancers and in-house employees; individuals and collectives). A broad tripartite division exists between Trade/Consumer, Scientific and News publishing. Cross-proliferation is common: both *internally*, within publishing sub-domains, e.g., academic specialists becoming public intellectuals by writing for popular non-fiction audiences; as well as *externally*, with other industries, especially via ideas captured as intellectual property e.g., the adaptation of novels for films or videogames (or vice versa). Publishing has long been a transnational enterprise, whether in terms of the production of papermaking and printing or in terms of the self-image of a cross-national 'Republic of Letters' associated primarily with (although not limited to) the European Enlightenment era (Casanova 2004). The latter remains powerful for the cultural policy imaginary. Yet, there is much territorial variation in terms of national institutional and regulatory contexts. Language continues to be a crucial differentiating factor: while scientific research largely, if not exclusively, relies on English as a global *lingua franca*, news and trade books are predominantly produced and consumed in domestic languages, such that the act of translation is a key aspect in international trade, perhaps especially for fiction.

Central to our discussion are the multiple, overlapping ways in which the publishing industry (or, more precisely, its 'production networks') remains hidden from view. First, while much of the public may be aware of best-selling novels and prize-winning authors, the industry that organises and co-ordinates writers and readers, and the practical steps of book making, printing and distributing – not to mention raw material extraction and waste, and the labour contained therein – are not so apparent. This is a global and significant industry with major conglomerates (mostly Europe-based) who play a dominant role e.g., Penguin Random House, Hachette Livre, HarperCollins, Bertelsmann, Axel Springer. Part one of the report therefore provides a 'first-pass' overview that builds an initial picture across all phases of the entire production network, as conceptualised by the CICERONE project methodology – giving equal sight to content origination, production, distribution, exchange and archiving (see Diagram A below and Cicerone report D1.4 for further detail).

Second, the industry itself conceives of, and reports on, its activities according to sub-industry divisions (educational, academic/professional, trade/consumer books, children and young adults) and media formats (physical books, journals/magazines/newspapers, digital content). Such subdivisions are constituted by meaningful historical and institutional logics. Yet much of this self-reporting obscures as much as it reveals. The Federation of European Publishers' subdivisions suggest that trade books make up almost half of publisher revenues (49%), with 'education and school' (19%) 'academic and professional' (18%) and children's books (13%) constituting the remainder (FEP 2021: 2)). They estimate that trade publishing produced around 605,000 new titles across European members, and employed more than 500,000 people along the entirety of the value chain in 2019 (FEP 2021: 1) – however more granular detail is obscure. Moreover, for methodological reasons (and access to data), journal publishing is excluded from such industry reporting (e.g. FEP 2021; IPA and WIPO 2020), in effect treated as an entirely distinct subdomain from trade in books (even while the latter includes academic monographs). Here alternative sources are required. For example, drawing on scientometric analysis, the STM Association's Global statistics estimate around 45,000 active scholarly journals and around 4,500,000 articles (STM 2018: 15) – but again, further detail is hard to find. There are two indicative but crucial points here. First, direct comparisons or aggregations between sub-domain are not possible, based in existing conceptualisations, methods and data sources, such that value chains are almost impossible to trace, especially where they cross territorial borders. Second, where large amounts of data (on sales, workforce or consumer behaviour) exist, invariably they are inaccessible, in no small part due to commercial protections – an issue that has worsened through digitisation. We unpack and explore statistical issues in part two of this report, with a focus on the Eurostat database.

Finally, the industry is not one of pure economic value; it is underpinned by cultural values as well. In fact, it is difficult to overstate the value put on reading, knowledge and discovery to society: clearly the publishing industry is handmaiden to this activity. An additional barrier to understanding is the profound and rapid change which a range of publishing activities are currently undergoing. Digitisation echoes the dramatic social and economic changes that first brought about the revolution of printing – perhaps most evident in newspaper publishing.[1] Our emphasis in this report – and hence our case study selection – responds to ongoing shifts over time across quite distinct typologies of network governance in relation to state/market (and civil society). This has particular consequence for forms of literary culture that are of special interest to forms of national cultural policy that have traditionally sought to protect and promote local tradition and diversity, in an increasingly globalised context. Equally, new and hybrid formats, emergent data-driven business models and a platform economy impacts the structure, organisation and power within and without the publishing industry, in ways that are particularly striking in scientific publishing. Such issues are developed in qualitative detail in our two cases studies, in part three of the report.

[1] While we touch on ways in which traditional journalism and news institutions have been irremediably disrupted, a detailed analysis of that sub-industry lies beyond the scope of the review.

These gaps in our understanding constitute the overall challenge to which this report responds. The remainder of this first part moves to outline a view of the publishing industry from the perspective of global (cultural) production networks. Our narrative starts from the physical and digital goods that flow through them and then moves to the labour force, in terms both of its most visible creative workers and less visible intermediaries and support workers further down the chain. We then consider the idea of embeddedness, in societal, network and territorial terms, before finally outlining the policy dimensions, highlighting the changing balance of the phases of the publishing cycle, at every sub-phase. This offers a contrasting view to a simplistic focus on authors but it also highlights a different perspective from that used within industry itself, giving particular emphasis to the broader socio-institutional and regulatory dimensions, and national/territorial variation, in which the production network is embedded.

Figure 1. A schematic rendering of the publishing production cycle

1.1.2 Goods and services

To begin our discussion of the general characteristics and dynamics associated with global production networks of publishing, we first explore the particular outputs around which they are organised. In particular, we track the network implications of a shift from sales of physical goods towards the immaterial services associated with the ownership and licensing of a bundle of rights in a digitising context. Accordingly, we first outline the traditional ('pre-digital') aspects before moving to digital aspects, with examples primarily drawn from literary and scholarly publishing.

Physical goods

The written work is typically housed within the book form, as the primary carrier through which expressive ideas and narratives (in literary publishing) or information (in the case of non-fiction works) are communicated. In other words, content and form are intimately bound up together, assembled not just through the creative work of the author and their representatives but the coordination of the publisher and printing house, and captured in intellectual property rights. Authors receive a royalty, protected by copyrights, that is collected and redistributed by collection societies. Publishers take primary responsibility for printing, coordination, distribution, marketing and, in some cases, retain ownership of rights. Contracts between the author and publisher set out the terms, duration and jurisdiction over which such rights can be applied, enabling their subdivision into primary rights and secondary (re-usage) rights exploitation, as well as percentage of royalty associated with them based on a negotiated component of retail sales (recommended retail price). Accordingly, a loosely indicative cost structure is split between production and distribution of the book (or its derivative forms) (see Table 1) – although clearly, for example, bestselling authors are able to leverage greater weight in negotiating such terms and figures than newcomers.

Figure 2. Typical cost structure of a book

* 45% to the retailer
* 10% to the wholesaler
* 10% to the publisher for printing (usually subcontracted out)
* 7% to the publisher for marketing
* 13% to the publisher for pre-production
* 15% to the author (royalties)

Source: Book Cost Analysis – Cost of Physical Book Publishing – Kindle Review

While both literary and non-fiction publishing deal with ostensibly private goods, however, they have properties typical of public goods (a very limited degree of excludability and rivalry). This leads to an important tension related to retail sale of books (especially physical): from a lay perspective, the consumer 'sees' and 'holds' the book as an object they own; in fact, while they may 'own' the (paper) container of the book's pages and cover, in terms of the content, they are buying a restricted license to access it for the purposes of reading (and not to share, reproduce or derive income from it in any way) – although restrictions vary by region. The marketing of books tends to focus on the premium that can be leveraged due to recency effects (i.e. novelty): in distinct hardback and softback markets, for instance; or retail sales dates used for promotional purposes, e.g. in bestseller charts. Alongside reviews and criticism, the latter has driven the traditional market logic of 'focusing demand': both

processes work in tandem to magnify sales of a small number of products. Equally, given that one feature of cultural goods is the centrality of the archiving phase of the production cycle, it is possible to conceptualise them not just as consumption but also production goods: 'business-to-business' resources that enter into a new process of creation.

The writing and business practices involved in producing serial publications are quite distinct from those in trade publishing. This is the case in news and journalism but especially so for scientific publishing (both of which are concerned with the efficient communication of information). Scientific findings were once communicated either in book form or, more commonly, through private letters or oral presentations and demonstrations of significant findings to a scholarly society or to the public. The journal article emerged in the seventeenth century through the publication of the Philosophical Transactions of the Royal Society in London (i.e. as an innovation of the European Enlightenment). Since this period they have continued to have a limited general audience and focus instead on building specialist peer groups – as such, they might be viewed as a club good (Potts et al. 2017) – within which their status as production goods, within the research and innovation process, is enhanced. Peer review is seen as a 'gold standard' mechanism for scientific rigour and quality control, yet was formalised only much later, in the mid-twentieth century, as a means of preserving the autonomy of a community of scholars from state direction (Baldwin 2018). The idea of a journal as a record of communication within a scholarly community, through which hypotheses are strengthened or falsified, has persisted without substantial change over much of the intervening period. Notably, however, while authors retain rights to their own publications, there is no route in which they receive substantial remuneration as a direct result of publishing. This lack of control over their own IP is in the interests of universities, who retain greater control of the internal career-related ranking system of credit and prestige (as discussed in the section on labour). Concurrently, the academic work of writing, editing and review present no, or only very minimal, labour costs – while costs of subscription to institutions remain very high.

An important characteristic of published works is their durability: they are not 'used up' in consumption and typically have long afterlives after initial point of sale (and, indeed, after the author's death). They therefore hold (potential) resale value, although second-hand markets for books are not regulated and authors derive no income from this activity. This quality is clearer in the case of secondary rights associated with translations and adaptations (films, plays, video games, etc.), as well as libraries and associated public lending rights, from which authors can derive an ongoing return. Library purchasing is predicated on this quality, with particular implications for serial publications (e.g. magazines and journals). Again, scientific publishing is an extreme case. The 1970s saw an aggregation of archives and scientific journals (with the publisher Pergamon an important mover in this respect) and eventual domination by larger publishers. Academics' capacity to effectively perform research and transform their field depends on access to this expanding archive (a continuing rise in number of both published articles and of journals). Hence libraries are effectively locked in to these uniform repeatable subscriptions, characterised by increased fixed costs of production but limited library budgets, and limited bargaining power, leading to what is termed a 'serials crisis' in the 1990s. The so-

called ‘big deal’ – negotiated discounts for subscriptions of large bundles of the most relevant journals – emerged in response but this also forms the background for changes associated with digitisation.

Digital goods

The move to a digital trade in books is perhaps best captured in the rise of Amazon: initially a digital marketplace for buying physical books that competed with retailers, with implications especially for smaller, independent bookshops and kiosks; then moving towards the digitisation of the ‘container’ format itself (the e-book) and an associated trade in hardware and software e-readers and platforms. This is accompanied by a rise in audiobooks. Despite its informational form, an e-book is essentially a facsimile of the traditional paperback. However, while the essential cultural form of the book persists, much else changes. First, the division of costs and profits. With diminished material production (sourcing of paper and mass printing) on the publisher’s part, and greater on-demand printing facility, the resultant surplus moves mainly to the distribution phase (e.g. Amazon or an aggregator such as Lulu or BookBaby). This lowers barriers to entry, increasing authors’ capacity to self-publish, to manage their own production, distribution and marketing, or otherwise alter the basis on which they are assigned copyright. Digitisation has allowed a finer division of rights into multiple licensable uses, alongside the possibility to track usages which can then be deployed as the basis of performance or remuneration metrics. Some publishers may take on direct-to-consumer functions, moving into retail, or vice versa retailers develop self-publishing platforms. Although there is no hardback/paperback distinction, discounting is a common means of promotion – although regulation of this aspect depends on different territorial regimes (discussed in the section on policy).

Likewise, in scientific journal production, online access has long been the primary means of accessing research and many journals no longer publish paper copies. While costs of distribution (transportation and warehousing of physical journals) fall to zero, the production costs (especially typesetting) are typically outsourced to low-wage economies. Combined with algorithmic and web-based search, performance monitoring and linkage tools, digitisation therefore presents an enormous opportunity to publishers. Where users are no longer required to pay for access (as in open access publishing), alternative funding models are sought, including contributions from authors, funders or publishers, or a hybrid with the traditional model (e.g. tiered payments for different versions of a text, cross-subsidy between titles, or open access once costs are covered), supported by Creative Commons licensing agreements. In scientific publishing, the terms on which such transitions are set out are agreed between publishers and libraries/research organisations (and their collective representatives), under the terms of so-called ‘transitional’ or ‘transformative’ agreements.

Second, the form of the book potentially changes and the consumer’s relation to it as a bundle of rights becomes more visible. Theoretically, written works need not be ‘finished’ entities: they can continue to be written, edited, updated or withdrawn from the market, after purchase. There are no necessary limits to the length of a newspaper, magazine or journal issue; indeed, there is no need for

separate volumes and issues at all and publication turnaround is not dependent on printing lead times. Nonetheless the traditional formats persist digital facsimiles, such as PDF documents and e-books. However, distinctions between formats – fiction, non-fiction, genre, peer-reviewed text and self-published work – are flattened, suffering from 'context collapse'. As an information good, the increased capacity to reproduce a book's content becomes a much greater threat to the publisher's business model. This leads to a growth in encryption and digital rights management systems associated with the demise of limitations associated with print and the production process. These manifest the legal regime into coded systems: readers thus become 'users' who purchase the right to access content on a specific machine with new 'hard' boundaries imposed by content owners over the limits to that use. The mid-twentieth-century introduction of International Standard Book Numbers (ISBN) and Universal Product Codes (UPC) acquired renewed importance for the digitisation of publishing (Striphas 2009), e.g. with Digital Object Identifiers, in terms of allowing for cross-platform compliance and more complex accounting amid changing international distribution structures. Such identifiers and product codes create fixity in a dynamic online environment (where links change and pages may be updated or lost) and this is applied to an increasing range of digital entities. Another consequence, clearly, is the decline of a resale market for e-books.

A third important consequence of the shift to an access-based model of digital content concerns the diminished capacity to capture data on sales and readership. While, in theory, there is a far greater expanse of users' behavioural data now available (e.g. not just downloads but page turns, reading duration, time of day etc), the commercial value of such data means it is more likely to be restricted from the public (and competitors). In other words, while this data is more detailed, it is proprietary, making it far harder to publicly track reading patterns. Publishers seek new markets in data on readership, sales, circulation and recommendation. In scientific publishing, such data can be combined with bibliographic software, data mining and indexing tools and used for scientometric purposes (tracking broad trends) and also deployed in business and professional (e.g. medical) decision support tools. The decline of public recorded data on sales and circulation makes it increasingly trickier to track the size, trends and value of publishing markets.

1.1.3 Labour

This section sheds light on the labour market of the publishing industry, concerning such matters as number of employees, workplace conditions, training and education. The publishing labour market contains different divisions: writers and others in the creation phase (writers, journalists, researchers, translators) are arguably the crucial and distinguishing market; supported by technical and managerial positions elsewhere in the production cycle (editorial, agents, printing house workers, wholesale employees, marketers, archivists etc.). We treat them in turn below.

First, a note on employment data. It is especially difficult to measure the number of authors with any accuracy; this category simply does not exist in standard statistical classifications (e.g. Eurostat). Here we are reliant on projections from industry representatives and local surveys. While Production and Exchange – publishing houses; bookshops and related leisure retailers – appear as the most prominent sources of publishing employment in Europe – this is based on very uneven classifications and does not account for income, or how the GPN spreads beyond Europe. Data on employment in publishing houses are subject to definitional ambiguities: full-time employees (easier to quantify) do not accurately represent employment. Publishing houses have a permanent group of associates, and the costs may vary depending on the current demand for their work. Editors (more and more often), graphic designers (almost always), but also DTP operators (often) work on contracts for specific work. This group constitutes approximately 25% of full-time employees of publishing houses. Moreover, there is a large group of authors collaborating (Badanie Rynku Książki w Polsce 2013). Nor does it capture (all) self-employment – especially limiting data on those, including authors, whose "first job" is in a different industry context – and voluntary work (e.g. festivals), such as (dependent) freelance designers or translators. Moreover, traditional literary agents and the emerging importance of social influencers act as crucial intermediaries for both labour and consumer markets. The networks which these enact, and in which the assembly of the commercial product is embedded, are not well understood or captured. Such issues are discussed further in part two of the report.

Creative labour

The labour market for authors and associated creators in trade publishing is classified as an input market, derivative on the demand for products, itself dependent on the readiness of consumers to participate in cultural life (privately financed by citizens) and the degree of involvement of the state in financing the "collective consumption" of cultural goods. Consumption is closely related to consumer tastes; thus their choices, and the domination of a few stars, are evident characteristics. The blockbuster system is in force regardless of geography. Hence the labour market of creators is a purchaser's market whereby, in the absence of objective criteria for artistic work, markers of "quality" are mediated by consumer discriminations that are often at odds with those of creators and intermediaries: pure authorial 'talent' mixes with effective strategic marketing. Newspapers and magazines represent another version of the author/publisher relationship where the journalist was traditionally directly employed by the newspaper to file stories that the editorial team determined would sell the paper (and satisfy advertisers); likewise scientific authorship typically occurs as part of an employment contract. The latter is typically conceived as a collective enterprise (whether in formal research teams or in the aggregated stock of knowledge), generating key points of differentiation from trade publishing. The organisational structures of scientific publishing are far less starkly divided between production and consumption, for instance: the academy is both the primary source of content and the primary market for its outputs; research 'users' are often also producers, as well as the primary upholders of 'quality' (Thompson 2005), taking on editorial and reviewing role of journals at little or no cost.

There are no goods in the publishing industry – books – without authors, although they account for only 10%-15% (or much less, as in academic publishing) of the book's cost-structure (royalties). The amount of the royalties depends on the position of the writer and their contract with the publishing house. Literary publishing, as in other creative industries, is typified by self-employment. Moreover, the literature indicates some other characteristic features, such as: a predominance of temporary (fixed-term or short-term) contracts, freelancing, periods of high intensity followed by periods without work, low salary, great differences between the "stars" and the rest e.g. the top 10 percent of UK writers earn about 70% of total earnings in the profession (Kretschmer et al. 2019), high expectations of mobility from employee (Kopeć 2016; Ilczuk et al. 2020). Some authors may be able to convert fame and reputation into autonomy and stability – through international prizes, for example – while remaining similarly self-employed and "flexible". More commonly, many authors will be "portfolio workers", balancing multiple income streams and possibly career identities. For example, many authors (and hence the creation phase) may also be embedded in networks of education institutions, creative writing courses and peer support groups, newspapers or magazines – here authors can find both employment and opportunities to hone their craft i.e. this is both a "developmental" phase and an end in itself. The blurring of boundaries between work and free time should be strongly emphasised, and authors exemplify the well-known precarity of self-employment (de Peuter 2014). Yet critical research on academic work suggests some similar dynamics even within formal employment relations, suggesting 'cultural' as much as 'economic' explanations. Research is traditionally a craft activity, carried out within specific epistemic cultures and norms structured by disciplines (Knorr-Cetina 1999); it is commonly viewed as a vocation, as contributors to the stock of public knowledge (Weber 2004). However, it is often characterised by high levels of motivation, strong autonomy, casualization, pay discriminations, overwork, and so on (Cannizzo 2018; Gill 2014). Whereas success in literary creation demands no specific qualifications, it is, in practice, exceedingly difficult to be a published scientist without formal training and accreditation, while news journalism has also become increasingly professionalised.

Because of the high up-front financial risk rooted in book publishing the pressure for discovering new, relevant and potentially bestselling books is growing, making for a new power dynamic between authors and other key actors of creation. The labour market for authors is characterised by uniqueness: a low degree of substitution of talents and creative skills by technology, heightening the importance of consumer discrimination, while limiting creators' opportunities (and willingness) to work in other industries. They often provide work irrespective of the level of remuneration, but extremely high salaries can occur for exceptionally talented (or successfully promoted) artists. It is a market in which incomes are uncertain and irregular, although they can reach very high levels, with great differences between the "stars" and the rest e.g. the top 10 percent of UK writers earn about 70% of total earnings in the profession (Kretschmer et al. 2019). Some authors may be able to convert fame and reputation into autonomy and stability – through international prizes, for example – while remaining similarly self-employed and "flexible". Professional success does not always guarantee a high level of financial stability. Non-standard forms of employment (part-time, irregular hours,

multiple contracts) predominate (Ilczuk et al. 2015; Elberse 2007; Throsby 2001), alongside high expectations of employee mobility (Kopeć 2016; Ilczuk et al. 2020).

Most often, the author works solely during the phase of creation. However, they may also be involved in promotional activities – such as giving book presentations/readings/signings – especially those that develop strong "personal brands", actively blurring boundaries between creation and exchange phases. The importance of personal branding and personal marketing potential has grown clearly and requires additional skills from authors. The internet updated authors' functions and responsibilities, such that they are expected to actively self-promote and engage in marketing activities to support sales. Although this kind of activity is well-established, the intensity, range and extent of required marketing operations is unprecedented, given that today's industry's biggest challenge is not to produce and distribute but to get noticed and talked-about. Authors' skill for self-promotion is often more valuable to the publishing market than literary talents: celebrities (artists, bloggers, Instagrammers, television presenters) are increasingly invited to create published content (books, memoirs, diaries) because of their marketing potential, easily topping bestselling book listings (cf. publishersweekly.com. 10.07.2019). This creates additional expectations for literary authors to match the high levels of media coverage and promotion. Celebrity authors affect the oversupply on the already overcrowded labour market of literary writers.

Given their trade in ideas and stories, authors may become public intellectuals, "influencers" or "thought leaders", developing synergies with, and adding value in, other industries and wider social, cultural or ecological contexts. Hence, authors wield influence, as well as responsibility, over areas of life beyond the book. Foundations are useful institutional frameworks for managing such exchanges and cross-phase synergies across the (non-linear) publishing GPN. For example, the activities of the Wisława Szymborska Foundation include scholarships for young authors, lending it a generative role in the creation phase, as well as archiving, copyright and royalty activities related to the author's estate.

Language differences still form a major obstacle in international publishing and English gains a dominant position, both as modern *lingua franca* and as the first language of many internationally published and renown authors. Literary agents provide crucial connections between the national publishing markets in Europe and worldwide. Moreover, translators remain a vital source of authority and recommendations to both literary agents and publishers in choosing books for translation and publishing abroad. Agents gradually increase their impact as those who exclusively introduce authors and books to big publishers and to the wider industry. In the biggest European publishing markets (UK, Germany, France) it is virtually impossible to sign with one of the major publishing houses without an agent's representation. Agents act as gatekeepers, choosing from a vast number of book proposals filed by authors, as well as crucial transmitters of books among national markets. Publishers and literary agents can increase their influence by initiating marketable topics, or story outlines, and searching for authors capable of creating the content. This trend can be clearly traced when reader-

driven interest creates significant potential. In such cases, authors become more of a partial contractor or performer.

Self-publishing platforms offer growing number of publications and quickly become an important source of new releases for publishers and literary agents who now use them to search for interesting authors. Self-publishing platforms have had a number of effects: easing barriers to entry, enabling (European) authors to publish (internationally) without agents and publishers; giving authors administrative control over (or responsibility for) royalties and publishing rights; allowing greater contact with readers; introducing markets for intermediaries to place books on major online services worldwide (retailers, aggregators, distributors). Internationally bestselling self-published books were among the biggest phenomena in publishing's recent history, with high-profile adaptations for cinema, games and merchandising (e.g. *Fifty Shades of Gray* by E.L. James, *The Martian* by Andy Weir or *Goodnight Stories for Rebel Girls* by Elena Favili and Francesca Cavallo). In such cases, self-publishing serves as a tool of self-marketing, enabling authors to be "rediscovered" by publishers and introduced to the book market. But self-publishing places a substantial financial and operational burden on authors. For advanced services (editing, refining, marketing), authors are directed to outsourced and payable providers or encouraged to buy service packages. The English language remains the key advantage, easing access to a global market; publishing in a domestic national language remains a liability, as authors are tasked with selling their rights for foreign translations. Hence, outside of the comprehensive services of the standard publishing model, few self-published authors manage to reach a substantial audience, gain recognition and financial success.

Intermediaries and support work

Closure and outsourcing of core functions

Employment in publishing production has declined mainly in editorial, production, marketing and promotion departments, alongside proofing and typesetting. To an increasing extent, these tasks are performed by external contractors, which reduces the fixed costs of publishing houses. The subdivision and outsourcing of editorial and production tasks, such as typesetting and copyediting, as well as physical printing, has been underway since the 1980s. Hence the rapid rise of publishing services, many located in Asia and in some cases South America, in line with broader "business process outsourcing" trends (Aldaba 2019). Although some of these activities remain in-house, clearly outsourcing results in loss of skilled jobs in 'home' territories, as well as increased competition in the overseas contexts (Dahlmann and Huws 2006/07). For instance, Oxford University Press finally closed its UK printing press in 2021, resulting in twenty job losses (Flood 2021).

The preparation of manuscripts in a digital context involves detailed formatting, manipulation and correction of text and images, and preparing for online display and search using a mark-up language. To take one example, the TNQ firm is a major supplier to Elsevier, founded in Chennai in 1998 with fifteen employees, charging $3/page (in rough comparison to $10/page at European rates); by 2006 it

had well over 600 employees, working day and night shifts, most of whom were required to have a postgraduate degree, while one in ten held PhDs; around half were women, while those "from lower castes and other minorities" were favoured (Luce 2006, 304; Mallet 2006). Largely this shift is accounted for in terms of reducing labour costs by making use of high-skilled English-speaking graduates – yet accounts of the labour process in this context are few. Outsourcing has raised concerns over deskilling, lowered work quality (translation and presentation errors) and poorer working relationships between authors, editors and other publishing workers (Dahlmann and Huws 2006/07; Rynek Książki w Polsce 2013; Walby and Lippert 2019). Clearly, the liquidation of wholesale entities and technological changes introduced in wholesalers (process automation) adversely affects the employment in that phase of the chain.

Changing roles and tasks

The publisher remains the key actor in the production and marketing of books, although technological changes have brought significant modifications to the variety of actions taken by publishers. The latter part of the twentieth century saw the transformation of a largely craft-based industry into a more corporate form, with a strong tension between editorial and market logics of production (Thornton 2002), globalised outsourcing, and further transformations of the labour process driven by digitisation. Greco, Milliot and Wharton (2014: 5-6) consider different functions of the American publishing house, among them: content acquisition and development, book design, management of the production cycle, press, printing, paper binding, marketing, sales, fulfillment, customer service, other revenue streams. A similar specificity applies to European institutions.

A modern publishing house increasingly serves as a hub of diverse creative undertakings, concerning the actual content of the publication as well as its form (print, e-book, audiobook, enhanced book) and marketing. The publisher becomes an employer to the growing number of co-creators engaged in creation and production. They face significant increase in costs other than producing and printing the book, e.g. employing PR, marketing and e-commerce specialists to effectively introduce the product into the market and exchange networks (online and traditional). This can be observed in changes to the organisational structure, with growing number of employees or associates dealing with new forms of online marketing, distribution and representation (Rynek Książki w police 2017: Wydawnictwa). In additional to the long-standing roles of editing, revision and designing teams, specialists responsible for marketing gain more influence on the product, e.g., by deciding its physical form or being consulted at a much earlier stage of developing publishers long-haul market strategy and publishing program.

New tasks and specialized professionals have entered the process (digital content editors, designers and layout designers, sensitivity readers, audiobook sound directors, engineers, narrators and actors). Heightened competition places additional value on the physical appeal of the book. Book designers and cover designers find themselves in a central role in creation and production, often making use of new printing techniques and fabrics. Book design helps to reach various groups of buyers and add value by differentiating products as e.g. popular "page-turners" or exclusive, high-profile products. In

the last decade, a separate market for services dedicated to digital publications (e-books) has also sprouted and widely developed, provided by companies such as Virtualo, NetPress Digital, Legimi, Inpingo, eLib.

Diversity in publishing houses

As spaces of employment, publishing houses and mediating agencies have been given some attention in terms of the inequalities of opportunity (e.g. based on assessments of the market 'risk' of certain authors or genres), as well as exclusions and exploitation of gender in workplaces and their associated social milieu (e.g. Driscoll and Squires 2020; Saha and Van Lente 2020). According to US research conducted by and mentioned above, 79% of respondents identified as White, 78% women, 88% straight and 92% non-disabled (Jiménez and Beckert 2020). A report from the same year in British publishing also showed the dominance of women; moreover 55% of senior leadership and executive-level roles were held by women, while 10.3% of respondents were identified as LGB+ (in comparison with 2% of the UK population) (Publishers Association 2019).

Curation and deprofessionalisation

Physical bookstores (or kiosks) with competent sellers serve as a significant source of market knowledge: in independent and chain stores alike, bookshop employees act as cultural intermediaries deploying their literary capital in a curatorial mode (Wright 2005). Yet, the number of independent physical bookstores in Europe is falling (even if significant national markets disparities can be observed). Similarly, library workers are important curators of books (knowledge more generally), in their work developing catalogues and subscriptions, dealing with storage capacity for collections, and directing users to resources. However, public libraries have undergone dwindling funding and closures at the same time that they face a paradigm shift in their function – coming in to direct competition with alternative sources of publications and knowledge, requiring investments in their technological and digital infrastructure, and to acquire the newest and most accurate publications. As employers, such dynamics place pressures on both the numbers of staff and their skills/duties, contributing to a sense of deprofessionalisation across the field. There is a paradox here: increased access to knowledge, whether via Google or open access initiatives, both extends the core values of libraries (unlike retailers) while undermining the profession of librarianship itself (Eng 2017).

Demand-led creation and user labour

User recommendations are growing in influence over professional reviews, indicating a transfer of authority and trust from official sources to personal, peer-to-peer relations. On-line platforms and communication tools changed the role of readers into influencers. Readers gradually take place of opinion makers, in some genres (fan fiction, thriller, crime, young-adults) gain influence on the development of a book; in news they can act as independent watchdogs and fact-checkers. This phenomenon poses new challenges to authors and their self-marketing skills, making them additional value assets, but creating new risks for publishers by creating pressures for content to become more dependent on social trends and dynamic changes.

1.1.4 Embeddedness

Embeddedness is a key concept for the GPN approach, and for the CICERONE project in particular, marking an important distinction from other value chain approaches. It concerns how GPNs 'touch down' in particular places, at particular times, and the impacts and effects thereof. Three forms of embeddedness are emphasised (Kloosterman et al. 2019 after Coe 2015): the institutional and historical characteristics of the *societal* dimension; the structure and governance of connectivity, more or less hierarchical or distributed, across *networked* scales; and the *territorial* anchoring of the GPN in particular places and jurisdictions. These are linked to core policy issues concerning local economic development, as well as regulatory structures, workforce conditions, and environmental impacts, as well as the immersion in symbolic and meaning-laden practices and processes through which cultural production is particularly likely to be inflected.

Importantly, though, novels are not just goods that pass through production networks. Their very content and form are shaped by a plurality of cultural/imaginative and industrial crossings, which historically and today shape what precisely a book "is" (see e.g. Lanzendorfer and Norrick-Ruhl 2020; Raven 2017). There is much crossover between dimensions of embeddedness e.g. funding systems and business models are embedded in territory – localised (regional/national) grants/prizes and markets/readerships – and industry networks – via publisher advances or crowdfunding. Often there is a relation of 'recursive intensification', where, e.g. "product" enters into "place" and "place" into "product": literary outputs are aesthetically, and linguistically, textured by the societal and territorial conditions in which they were produced, just as the 'symbologies' of books and authors go on to become 'assimilated into the cultural assets of the places where they are made' (Scott 2006: 10). This way, books and their authors may add to the quality of a place and attract visitors and residents. Accordingly, we will need to be attentive to the spatial dimensions of how not just economic but also cultural value is created, enhanced and captured.

This demands consideration of the local/regional contexts, labour markets and conditions, social milieux, regulatory environments, valuation practices associated with particular firms – and, moreover, of how this relationship is changing. In this sense, perhaps we might talk (historically) of "path dependencies" and (spatially) of "strategic coupling". Much debate, however, revolves around the balance of power in that coupling relationship: e.g. between lead firms and civil society organisations – and, by extension, the state e.g. the moral economy around private/public funding and ownership of knowledge, intellectual property protections and restrictions, and profit margins.

Societal dimension

Literacy and knowledge dissemination

Many initiatives have been driven (by e.g. UNESCO) by the view that publishing delivers a crucial role in expanding literacy and an informed citizenry. Likewise, the stated aim of many publishing

companies (in Corporate Social Responsibility terms) is to improve the discovery and dissemination of culture and knowledge, literacy and the critical capacities of the public in those nations in which they operate (especially in developing contexts and where the value of expertise is under pressure). This is also at the core of the Humboldtian ideal of the mutual embedding of scientific publishing and teaching. Hence, education is a crucial context in which publishing takes place. We can speak therefore of the strategic coupling relationships between authors, publishers, schools and libraries. In this way, there is a tradition of authors being socially embedded in education, while schools, universities and libraries, and their associated "reading lists", can shape the canon of literature (and hence patterns of supply as well as demand). Localised book clubs and reading groups are a "bottom-up" extension of this sense of small-scale literacy (Childress and Friedkin 2011).

Readership and critical communities

The important moment of exchange is deeply social: traditionally, in the culture of regular visits to a bookstore around the corner; more recently, annual participation in big scale publishing events like book fairs and book festivals. The latter are simultaneously sites of economic transactions (sales of books) and symbolic value (authorial brands). Hence, developing and engaging reading communities are important "outreach" activities as well as a market-building strategy. In this sense, the "festivalisation" of publishing signals the growth of public promotion and PR. Festivals have become hubs connecting people and grassroot initiatives (i.e. performing local social embedding), as well as platforms of exchange and discussion. With their patrons they became a new, upgraded and extended version of author's meetings. Nonetheless, given the precarious non-profit, low-budget feature of book festivals, very often authors are asked to participate for free. In 2016, for example, a boycott of the Oxford Book Festival by more than thirty authors initiated a discussion around equity of participation. Such social initiatives can shape and be shaped by authors' personal brands/image; indeed, many authors not only participate as "special guests" during events, but also become organisers of their own (e.g. Olga Tokarczuk's role as host of Góry Literatury [Literary Heights Festival]), often channelled through the activity of a foundation/third-sector organisation.

Furthermore, certain specialised literary and scholarly fields are embedded in important genre distinctions, characterised by distinct norms, structures and routines, influencing professional status and accreditation, as well as stylistic conventions. These can be thought of as bounded communities which are difficult to gain access to from the "outside", as either producer or consumer (i.e. without the necessary credentials and interpretive expertise). "Internally", meanwhile, genre-communities are characterised by a far less differentiated division of (intellectual and creative) labour, approaching a commons-based mode of production, with strong linkages between phases.

Cultural infrastructures

Public libraries are critical infrastructure within local communities: foremost as providers of public knowledge and literacy – but also, commonly, as hubs for a range of informal and formal community services, such as providing healthcare and social engagement resources for elderly and vulnerable

people. With growing digital resources and mobile services, as well as programmes of cultural activities, libraries take on the more active function of cultural centres, in contrast with their traditional (passive) role as catalogue holders. The heightened demand of e-lending during the Covid-19 crisis presents some evidence of the continued value of the latter, while obscuring the former. This is expressive of broader developments in digitisation of books and lending/licensing access to e-book cloud storage, driven by major technology firms (Amazon Kindle, Google Books) alongside user expectations around independent and mobile access to archives.

Network dimension

Rights administration

The location (ownership, assignment, management) of copyrights confers dominance over much of the production cycle as a whole – whether in the context of a vertically-integrated transnational publishing company, or retained by the author as branded entity at the centre of a more dispersed network. In the former case, publishers oversee and finance the full process of producing a publication, including content creation, editing, designing, digitising. They cover the cost of print and distribution, becoming the single biggest investor in the publishing production chain, taking up substantial financial and operational risk; retain control over the publication form and contents; and are the key employer for a majority of actors in the industry. What is more, a publishing house can own one or many publishing brands (imprints, press titles) with many merging into conglomerates operating on international scale (e.g. Penguin Random House, Hachette Livre, HarperCollins, Bertelsmann, Axel Springer), facilitating *media convergence* (Jenkins 2006). One important phenomenon is emerging concentration along the entire chain, creating conditions for monopolistic practices (e.g. Empik in Poland).

Transmedia convergence

The flow of content – titles, characters, stories and "worlds" – across multiple different media platforms and industries capitalises on the migratory behaviour of media audiences in search of entertainment experiences (Jenkins 2006: 2-3). Thus there is a synergic flow, associated with the transmedia story: from book to film, theatre play or video came, to franchised "spin-off-products" such as merchandise, amusement parks, restaurants, etc. Books are generative in this way; nonetheless, and importantly, familiarity with the story is not necessary to enjoy the spin-offs and sometimes the latter become far more successful, to the point of being viewed as the "original" (e.g. "Luther", "Game of Thrones"). In sum, media formats and genres are distinctive but the initial starting point of the transmission is very often related to the product of a publishing industry: a book. In this case, we might emphasise how processes of translation enable a degree of disembedding from societal and territorial context, enabled by phenomena such as convergence and transmedia storytelling, and a continuing growth in cross-channel literary adaptations (Jenkins 2006; Murray 2012). We would wish to emphasise here that the mobile objects of such transmedia storytelling can include, not just fictional characters, but also the

author's "brand equity", as in Lena Dunham or Wisława Szymborska giving rise to further franchises and products, dance spectacles, festivals, etc. Those new forms of content are simultaneously a way to archive not only their art pieces but also themselves.

The local/global nexus

As with translation, particular devices and practices exist to facilitate exchange between global networks and locally-embeddedness of particular places. Unlike book festivals, for instance, bookfairs are publishers' ventures, as venues for rights sales and generating promotional buzz (Driscoll and Squires 2020), and remain the most important traditional space for the presentation of new releases, offering publications with substantial price cuts to retail buyers. International book fairs in London (Spring) and Frankfurt (Autumn) are the two most important book publishing events in Europe. Both are key channels of international exchange of cross-border cooperation (new national editions, co-editions, translations), increasing authors' international market visibility. They are also an important platform of business relations between publishers and wholesalers, assembling communities of professional practice through international knowledge exchange for professionals (with conference and workshop programmes) (Moeran 2011). We might also consider under this heading the curatorial function of news agencies, whose business it is to mediate between scales of news, and to make use of deep local knowledge and employment; as well as local 'stringers', self-employed examples of a similar activity, drawing on detailed place-specific contacts and cultural expertise.

Territorial dimension

Anchoring and local development

The orthodox view of GPN embeddedness focuses on territorial anchoring and upgrading, across different phases. Here we can think, in normative terms, about the location choices and contributions of lead firms to specific cities: publishing firms typically place headquarters in primate cities in the Global North (Europe, USA), alongside a global spread of subsidiary offices, business units and joint-owned technology ventures. This provides some degree of foreign investment and, as discussed above, some strategic linkages with local training and labour markets (although whether they provide 'good' jobs is a point for discussion).

Traditionally, distribution is linked to paper production, printing, transportation and warehousing; more recently, metadata assignment and management. In line with global "business process outsourcing" trends, these activities appear predominantly to be located in Asia, especially India and the Philippines. The precise business relationships here are not always obvious, historically cycling between being independent, joint ventures or wholly-owned subsidiaries. Outsourcing and digitisation have reduced production and transaction costs (printing and distribution) – importantly, however, this does not obviate the importance of territorial embeddedness, institutional history or strategic coupling processes: TNQ for instance is a family-run business with close historical connections to The Hindu Group of newspaper publishing.

Amazon “fulfilment centres” have also taken on a local development role in a broader context, with locations often chosen specifically for employment potential – albeit not of desirable ‘creative’ jobs. Yet further down the chain, the digitised “ecosystem” of data transactions is dependent on infrastructure, such as internal “server farms” and logistics platforms like Google Cloud or Amazon Web Services, themselves physically located in data centres. In addition to local development, there will be varying labour conditions and environmental impacts at the various sites across these linkages (cf. Caraway 2020). Employment conditions in distribution centres have come under some scrutiny; those in the paper manufacturing and printing side have rather less so. The environmental impact of publishing is not well understood: one would expect most pressure to be in terms of the impacts on forestry and logging, temporary events and exhibitions, as well as the infrastructures of data servers and transmission.

Language and translations

The nature of the written word is that embedding is strongly associated with national languages, and sometimes also regional dialects; such that circulation beyond the home country – equally dis-embedding by, and re-embedding into the GPN – would normally involve the creative work of translation, commonly in close collaboration with the author. Translators are tremendously important for non-English speaking authors, who build intimate working relationships with high-quality translators to “conquer” foreign markets and publicity. Very often, those quality translations are responsible for the global success and name-recognition of an author: hence, good translation is a key dimension in authors’ global careers.

Place branding

The social and cultural capital of festivals can change the meaning of the place in which it is sited – influencing local economy, infrastructure and community. Some genres of fiction, such as nature writing, as well as travel and guidebooks, can be characterised in this way (Alacovska 2013), while one legacy of the Romantic conception of the author as deeply embedded in the natural world (e.g. McKusick 2010) can be found in (the branding of) contemporary rural writing retreats. Particular literary scenes or heritages are often associated with historical and present-day clusters of authors, publishers and booksellers, as in the Madrid ‘literary quarter’, UNESCO Cities of Literature, or “booktowns” (Brouillette 2015; Driscoll 2018). These are typically calculated branding campaigns which typically recognise links between Creation, Production and Exchange functions.

While economic impact surveys might be carried out, to assess the effects of such initiatives on local employment, tourism and retail spend, questions remain over the degree to which temporary events and literary place-brands constitute sustainable and inclusive forms of local development. For example, the “brand” of Hay-on-Wye was established to create sustainable retail development, and a market for second-hand books, later becoming something of a model for international development through its capacity to generate tourism and inward migration (Seaton 1999). But the latter rested on an idea of ‘the good life’ – rural beauty coupled to active cultural engagement – that has arguably

facilitated an exclusive 'rentier economy': 'where the need to make a living is frowned upon and low levels of local consumption are funded by the sale of luxury goods elsewhere' (Oakley and Ward 2018: 14).

Dynamics: digitisation and Covid-19

The Covid-19 pandemic intensified pressure on physical retailers, while demand for books/audiobooks increased by 33% worldwide (FEP 2020). Closed bookstores have excluded those readers who do not use the Internet and the growth in online revenues cannot replace traditional sales. Even cultural super-stores, which usually have a well-established online presence, managed in most cases to contain the losses, but not to improve their sales. (FEP 2020). Some take a meritocratic view: by limiting supply to the book market, the crisis potentially sifts out those who create most (artistical and commercial) value, and those books that succeed will have a longer market life than before (Kowalska 2020; The Times [online]). Meanwhile counter-initiatives have also emerged: Bookshop.org, an online platform connecting users to independent bookstores, is worth highlighting for its stated aim to revive a sense of localized reading communities. Moreover, the lock-down situation provides evidence that events can take place virtually, for example in Instagram live transmissions with users asking questions simultaneously (online/off-line *liveness* context). It is likely such modes of engagement will continue to supplement, not to supplant, in-person festivals, further extending the "digital literary sphere" (Murray 2018).

Libraries, however, face a paradigm shift in their function – they are now in direct competition with alternative sources of publications and knowledge, requiring investments in their technological and digital infrastructure, and to acquire the newest and most accurate publications. In many cases, libraries have become multifunctional hubs where people meet, work, and spend their time accessing computers, the Internet, and other equipment. An enormous amount of new content is published at a much more rapid pace (especially digital), with new on-line sources of knowledge emerging. Therefore "access" dominates over the storage and archiving function of libraries, mediatheques and archives. Both digital and physical libraries offer new services placing them closer to networks of exchange. Commercial on-line booksellers, as well as newspaper and magazines websites offer access – via discovery and archiving – to vast resources of information and published content, e.g. Amazon has become popular as a directory and search function for particular subjects.

Accordingly, questions of embedding shift from physical/territorial to juridical/technical space, so that access to knowledge is less dependent on physical buildings, much more so on intellectual property/licensing arrangements and information architectures. To some extent, this movement further collapses distinctions between exchange, archiving and distribution. With open access and Creative Commons initiatives, the repository of publications available free on-line helps to develop exchange platforms, to build up availability of various publications for education, cultural heritage and research. However copyright regulations on national and European levels serve as authors' protection

and limit quick development of open and exchangeable resources. Moreover, phenomena directly connected with CC initiatives – fanfiction and a culture of *prosumption* (Ritzer and Jurgenson 2010) – heighten well-established practices of active participation in a cultural economy of fandom (Fiske 1992). New institutions arise to deal with such phenomena, such as the AO3 (Archive of Our Own) initiative of the Organization for Transformative Works (https://archiveofourown.org).

1.1.5 Policy

This section explores regulatory frameworks that directly or indirectly shape the European publishing industry – responding primarily to the CICERONE review of trade barriers and incentives in the creative economy (D3.1/D3.2). As knowledge carriers and sources of entertainment, publishing outputs have long been considered technologies of public governmentality. Hence, while there is little in the way of a distinct "publishing policy", there have been many interventions shaping the governance of literary expression, ownership rights, education and access to knowledge. There is a long history here, revolving around publishing's role in regulating the rights and freedoms of an informed (or not) public, across the various phases of the production network, forming the basis of publishing as an "industry" (Febvre and Martin 1997; Eisenstein and Lewisohn 2005). At the Creation phase, the licensing of the press (1662) and Statute of Anne (1710) set important precedents. In Distribution, the production and circulation of books has been of interest to monarchies, the Church and government, as an instrument of political, moral and religious power: censorship was introduced, lists of forbidden books were created, the content transferred to a wider group of people was controlled (cf. Darnton 1996). In Archiving, the emergence of public lending libraries, and their associated rights and costs, is crucial for providing increasingly generalised access to published works.

The market for books is shaped by structural asymmetries, or disincentives, and dominated by some key players: either state (libraries/education) or corporate (publishers). Hence, as a long-established industry with a worldwide distribution system, publishing also intersects with policy oriented towards trade and innovation. The products are sold and distributed locally, as well as internationally (Clark and Philips 2019). The market, in the early stages of existence, was highly regulated. Action strategies can be divided into direct (based on issuing regulations and instructions interfering with the activities of independent book market organizations) and indirect (related to subsidies, prizes and other forms of acknowledgement and creating an appropriate legal environment and social atmosphere). In many European countries, state interventionism in the field of books and publishing is usually led by ministries of culture. But there are also solutions where the external partners of the central administration are associations, foundations, agencies or various types of councils.

There are constantly changing ways of governance articulated as responses to technological changes of production, distribution; as well as the legal extent of nation states. Access to goods is open and it is not only about public libraries sources, but also goods with creative common license. Most recently,

with the open access movement and Creative/Cultural Commons initiatives, the repository of publications available free on-line helps to develop exchange platforms, to build up availability of various publications for education, cultural heritage and research (Stefik, 1997). However, copyright regulations on national and European levels serve to protect authors and limit quick development of open and exchangeable resources. Numbers of authors and creators are growing (alongside the number of books published and self-published each year globally). Although the intermediary function of established reviewers and critics remains important in shaping markets for books, a relatively novel phenomenon is the growth of "active" readers – as commentators, sharers, reviewers, collaborative readers or fan-creators – and, moreover, the incorporation of these activities into the digital publishing ecosystem (Murray 2018). Both these factors are coupled to online tools and social media, seemingly independent from levels of investment or administrative measures; meanwhile both rely on, or challenge, provisions on copyright and related rights, which are central to publishing as an industry.

Currently the main regulation powers are: copyrights or author's rights (with the problem of temporal extension of them), fixed book and e-book prices (in some of the European countries, like France or Germany) (Clark and Phillips 2019: 35-36), public lending rights (Ilczuk 2012: 76) and open source. The legal protection of literature can be reduced to two aspects: the protection of its intangible part, content, the literary "work"; and the protection of material carriers such as a manuscript, typescript and copies of a work multiplied in various forms, most often in the form of a book (e.g. special protections apply when they can be classified as relics). We might describe this as the subject of a "cultural" policy environment, while issues of ownership and control over publishing shape reproduction of works; however, the two are interlinked. The cultural policy of the state includes initiatives for reading and libraries, which have an indirect impact on the market condition of the publishing industry. With the advancement of human rights (e.g. freedom of speech, freedom of research, freedom of the press), policy towards the publishing industry has changed. Governments began to support reliable scientific publications, promote native literature and support reading. Moreover, anti-monopoly regulations have resulted in the emergence of small and medium-sized publishers on the market that enable the publication of more niche content.

Here we present the most important policy elements influencing the publishing industry, organised according to global production chain phases: creation, production, distribution, exchange and archives. We show relevant regulatory characteristics and interventions for each phase of the global publishing network in general, foregrounding how these dynamics shape the GPN for trade books (novels) and scientific journals (our two case studies). Although ostensibly both dealing with the circulation of the written word, and overlapping to some extent, the publishing activities, markets, strategies and associated networks for these two products differ substantially and in places it is hard to make meaningful comparisons. This is indicative at the level of data and measurement, for example, where publishing industry reporting will typically exclude journals, information about which escapes national reporting, remaining housed within private transnational organisations. As such this constitutes a first step towards a more sensitive view of the specific policy dynamics for publishing

networks than can be gained from a raw statistical overview and from industry's own self-representation.

Creation

Protection of intellectual works

The creation phase is primarily occupied by the figure of the writer. Copyright laws play a very important role here, with an important precedent set by the Berne Convention for the Protection of Literary and Artistic Works, signed on September 9, 1886 (inspired by the novelist Victor Hugo). Previously, protections for literary works created in one country did not apply elsewhere. The convention has been supplemented and revised many times, most recently in Paris in 1971, with the most recent amendments introduced in 1979, in which 154 states acceded to the act.[2] The Berne Convention introduced three fundamental principles, based on mutual respect for copyright: first, "national treatment", in which protections apply equally across contracting (domestic and foreign) states; "automatic protection", in which protection is not conditional on other formalities; and "independence of protection", where protections apply, even where foreign works are not protected in their country of origin. The Convention also specifies a minimum term of copyright protection. In the latest amendments this is the author's lifetime plus fifty years; however, in EU countries, copyright protects intellectual property seventy years after the death of the author (or of the last author in the case of a co-authored work).

The notion of authors' rights describes exclusive rights given to the creator of the work to guarantee supervision over the artwork created and remuneration for using it through sale or licensing (proprietary copyrights); alongside moral rights, usually to protect rights of attribution (to the author) and integrity (to oppose alteration of the work). There are two systems of intellectual property law related to the creation, use and protection of authors works: copyright and droit d'auteur. The first of these systems is the Anglo-American legal conception and the second is derived from the tradition of continental European civil law (authors' rights). Copyright operates in common law countries, including Great Britain and the USA. This system traditionally covers mainly authors' property (economic) rights. Moreover, the nature of the copyright system is influenced by the features of common law itself, such that copyright laws are more detailed and longer than in droit d'auteur countries because they do not lay down fundamental principles of law. Droit d'auteur operates mainly in continental Europe. Its name comes from the French Act on Literary and Artistic Property of 1791. It constituted that the artwork is under protection from the moment of creation, as the natural right of the author. Unlike copyright, this system covers both personal (moral) and property (economic) rights and is oriented less to society (the development of culture or science) and more to the protection of the creator's interests (Górnicki 2013). Consequently the systems differ in many details e.g. the types of works covered by protection; whether the author or another party acts as original

[2] See WIPO Lex Database: https://wipolex.wipo.int/en/treaties/ShowResults?search_what=A&act_id=26

entitled entity; and whether written or recorded registration is the moment from which protection of the work begins (Lewinski 2008). However, over time, these systems have moved closer to each other as a result of the Berne Convention, where the continental concept is dominant, and the efforts of the European Union to achieve legal harmonization (Lipszyc 2002).

Protection of professional status

Science is regarded as a specialised endeavour and hence producers of academic research are highly professionalised, in accordance with formal structures of education, training and accreditation: usually to at least doctoral level. While self-funding is an option (especially in humanities and social sciences), PhD training is often financed through government research and education agencies, funded research projects, professional disciplinary bodies and trusts, or through universities themselves. This institutional framework shapes the selection of candidates, disciplinary fields and research topics. The emergence of "participatory" or "citizen science" initiatives has sought to open up scientific practice – from project selection to the conduct, analysis and evaluation of research – to non-(professional) scientists. Often aligned with the broader "open science" movement, for many, this involves an ideal recognising the value of "lay expertise" in the co-production of knowledge, often in indigenous contexts (Jasanoff 2004); or indeed a more radical "democratisation" of science (Cavalier and Kennedy 2016); others suggest that, in practice, citizen participation can often amount to a cost-reduction strategy, merely outsourcing the mundane labour of data collection to unremunerated amateur enthusiasts (Mirowski 2018: 177-178).

Literary creation is not a protected profession and barriers to entry are much lower than for scientific careers: in theory at least, anyone can write a novel. In practice, pathways into a literary career (and even amateur writing) are indirectly shaped by education, social and financial supports, which are common objects of top-down policy, as well as institutional widening access initiatives, including funding, mentorship and support programmes (see below). An interesting development has been the rise, in some countries, of the Masters of Fine Arts in Creative Writing (MFA-CW). While this suggests a possible means of credentialising authors – more often it remains a symbolic resource for artistic identity formation and for labour-market signalling than a professional qualification per se (Childress and Gerber 2015).

Funding

A common means of funding literary creation is the patronage model of grants and scholarships for authors – these may be administered by cultural ministries and local governments, or by arms-length arts councils, as well as foundations, associations, intergovernmental bodies and so on. Commonly an application is submitted to support a specific project, with success predicated on meeting formal eligibility requirements and metrics (which may accord with wider policy goals concerning e.g. accessibility or quality), alongside supporting recommendations. While grants are offered on the promise to develop a work, prizes are offered to recognize quality retrospectively. The latter, important market-shaping devices in Europe (Squires 2014), are active across literature and the

sciences, typically domain-specific, and funded by private institutions or bequests. Undeniably, the most internationally prestigious prize is the Nobel Prize, awarded to outstanding contributions within the fields of Literature, Physics, Chemistry, Medicine, Economics and Peace. Administered by the Nobel Foundation, after a bequest from the chemist and industrialist Alfred Nobel in 1901 (and in the case of economics, from the Sveriges Riksbank in 1968). 113 Nobel Prizes in Literature have been awarded to 117 authors since 1901. Prizes have knock-on effects: the 1996 Nobel Prize winner, Polish poet Wisława Szymborska, allocated her prize to supporting other Polish language poets through the Wisława Szymborska Foundation. However, the submission and judging criteria for grants and prizes relies on expert evaluation and remains something of a "black box" (cf Childress et al. 2017; Marsden and Squires 2019). While they undoubtedly shape both literary and scientific fields at an institutional level, there remain questions over how effective and inclusive such systems are (Demoor et al. 2008; Shaw 2020; Cherrier and Svorenčík 2020; Ionnides et al. 2020) – a point with clear policy relevance. In scientific practice, governments seek to foster research and innovation through the distribution of centralised funding. It is commonly held that decisions about what to fund should be taken by scientists. Nonetheless, the frameworks through which investment is made, and through which research quality and impact are assessed, indirectly shape practice.

Production

As Greco claims, publishers had created a formidable "castle" – namely intellectual property – surrounded by a "moat" (copyright protection or the Bern Convention). Publishing firms are the ones who are mostly empowered to monetise the intellectual properties of a publishing industry (Greco 2013: 13). However, as the internet grows, a new approach to content production is becoming more and more popular. Creative Commons licenses are a set of license agreement templates, on the basis of which the author makes available, under certain conditions, his work covered by authors property (economical) rights. The principle of "all rights reserved" has been replaced by the principle of "certain rights reserved". These licenses are created and maintained by the Creative Commons organization (creativecommons.org). All CC licenses and tools are free. They make it possible to describe in a standard way the legal status of the work and the conditions for its use. Creative Commons promotes a mechanism for transferring works to the public domain, called CC0, as part of its licensing model. The public domain is the creation that can be used without restrictions resulting from the rights of the copyright holders, because these rights have expired or the work has never been or is not subject to copyright.

The idea of copyleft is to use the copyright system in such a way that it achieves completely opposite goals to copyright (extending freedom instead of limiting it). In the first stage, the copyright to a given work is reserved. This stage is no different from copyright. Only in the next one, all interested parties are allowed to freely copy, distribute and modify the work. At the same time, it is reserved that any changes will also be copylefted, and therefore used on the same terms as the original work. The goal here is to create creativity that spreads and at the same time the process of spreading can never be

blocked by re-reserving all copyrights to it (Stallman, gnu.org). The law does not cover copyleft. It is based on the goodwill of authors.

In the scientific world, publishing articles and books in appropriate, proven publishers plays an important role. Depending on the place of publication and its type, each scientist is accounted for (in Poland, points are awarded for a publication from the list of journals and publications created by the Ministry of Education and Science). The quality of scientific publications translates not only into a positive evaluation of the research activity of a scientist, but also the scientific level of the unit in which he or she works. This system is to encourage scholars to publish the results of their work, translate them into foreign languages and make them available to a wider audience. Above all, this system gives a privileged position to certain publishing houses, strictly regulating the market, subordinating it to the organisation of academic science.

Distribution

Open access the is free, universal and permanent access to digital documents: scientific and educational content. This concept is closely related to the scientific movement "open access" (Open Access Movement), which has been developing since the 1990s. This movement works to build a new open model of scientific communication. Open journals and repositories are the main communication channels through which knowledge is distributed in this model. There are also science blogs and e-labs that are becoming new forms of communication. Originally, the term was applied to those scientific journals that decided to fully open up access to their scientific publications on the Internet; nowadays, however, this term specifies making all publications available on similar terms. A precondition for a publication on the Internet to be openly available is that anyone who has access to the Internet, anywhere, can freely read, copy, store, print and use it for scientific or teaching purposes lawfully. Open access is not the same as the public domain, as the authors of the publication do not resign from their copyrights and may impose various types of conditions for making their work available, as long as they do not limit the aforementioned principles of free use of it (Suber 2004).

Exchange

Copyright regulations in national and European levels aim at better protection of authors and publishers from unlawful use and distribution of the published content, however the further the regulations go, the bigger the risk of blocking what becomes the most important part of publishing and exchange process – sharing and informal usage of published content. In the ongoing discussion about protecting the rights of creators and authors of cultural goods, it is important to acknowledge the significant change of the reader (user, buyer) status in the publishing industry chain. Those who used to be final recipients of a published good are now important co-creators of value by sharing, posting, and recommending it in social media of global reach. The readers are increasingly aware of

their influence on the success and failure of cultural products, hence their new attitude towards access as the main advantage and value of a published material.

So-called 'piracy' – that is, the deliberate contravention of intellectual property regimes – has been much discussed across cultural industries, especially in the wake of digitisation, and publishing is no exception. Two key elements to raise here are the regulatory dimension, with its territorial implications, and transformations in the broad digital ecosystem. The former is most apparent in the case of physical piracy, which does occur in parts of the world where there is a viable trade in illegal reproductions of books, but is negligible in EU countries, where regulation and enforcement of intellectual property is strong. It is more common in digital reproduction, where it is far easier for files to circulate at low cost. Here platform ecosystems have been built – through digital book retailing and associated reading devices – that have lessened the impact in recent years. In education contexts, student circumvention of formal IP-compliant access access to resources is increasingly solved with the creation of integrated learning platforms with licensed and restricted content (as with Kindle e-readers, for instance). In both consumer and education settings, increased ('one-click') convenience and technical reliability enables registered sharing to take place and, crucially, to be tracked by publishers and retailers. These issues take on a particular set of characteristics in scientific publishing, in which piracy has been driven by (a) a public accountability argument that an archive of publicly-funded research should be widely accessible to the public at large for free; and (b) an inequality argument, that paywalled research content is disproportionately inaccessible to academics in resource-poor institutions, especially in developing parts of the world. The development of so-called "shadow libraries" (most famously, Sci-Hub) relies on storage in data servers housed in less well-regulated parts of the globe and is increasingly combatted through national government pressure administered through DSPs. However, similar to commercial e-reader platforms, the development of Open Access and associated systems is viewed as the most effective and sustainable response.

In 2004, UNESCO launched the Creative Cities program, bringing together cities that have recognised creativity as an important element of their development. The network focuses on seven areas of the cultural and creative sector: Crafts and Folk Arts, Media Arts, Film, Design, Gastronomy, Music and Literature. There are 39 Cities of Literature in 28 countries: the UK hosts the most Cities of Literature (five: Edinburgh, Exeter, Manchester, Norwich, Nottingham); Poland hosts two (Krakow and Wroclaw) (Creative Cities Network, 2021). The main task of each of these is to create and implement a program to promote literary heritage, popularize reading among residents and support the local book market. For example, literary festivals and authors' meetings, allowing readers to meet the author. In addition, during their duration, various types of events are organized: lectures, readings, competitions, games, film screenings or concerts. Literary festivals, apart from promoting literature and reading, aim to stimulate demand. In addition, many countries choose to create cultural agencies which aim to popularise books and reading. Establishing this type of institution is one of the ways to shape the policy concerning the publishing industry. One of them is the Polish Book Institute, which encourages foreign publishers to publish Polish literature and supports translators. It promotes Polish authors at foreign fairs and festivals. It also supports libraries by helping in modernizing their infrastructure.

Book promotion is a cultural policy priority in most countries. In order to promote the book in other countries, special funds are allocated to translate literature into foreign languages (mainly in the form of grants) and prizes are awarded to translators. The EU's Creative Europe program provided co-funding for publishers to encourage them to translate books. The support covered 50% of the translation costs. It was also possible to get help in distribution and promotion. Since the program started in 2014, more than 2,700 books from 41 languages have been translated. The diversity of languages and genres reflects the languages and cultural diversity of literature in Europe.[3] Very often English is seen as a *lingua franca* not only for the academic journals but also for the fiction sector of a market. However, it is argued that translations are driven by the size of populations and proximities between languages; the English language dominates in texts being translated from English to local languages, while translations into English are less numerous (Ginsburgh, Weber, Weyers 2011).

One of the significant administrative measures applied to support the publishing industry chain is fixed book pricing – the so-called Lang Law in France – which allows the books to be distributed for a price already fixed by a publisher (in coordination with booksellers) usually for an agreed period of time. This system has been known and tried in many national book markets, however its influence on the publishing market has been mixed (Clark and Phillips 2019: 35-36). On the one hand, books, as objects of culture, hold a special status against other consumer goods and can be more equally distributed by small and independent bookstores (physical, on-line) and niche publications can be internally „subsidised" by publishers using funds gained on bestsellers to publish and distribute titles with lower market potential, allowing better risk management. On the other hand, with fixed book price applied the market is unable to freely shape the price of the published product and the connection to actual demand is compromised. Opponents of this solution believe that instead of a fixed book price, governments should create programs that support the development of literature and the creative sector.

Another way to influence the price of a book is through value-added tax (VAT). As indicated by the International Publishers Association, zero VAT tax rate applied on books seems to be most effective in supporting the whole publishing network, including authors, publishers, as well as libraries and exchange actors. This administrative policy however has not been introduced widely across Europe. Only a few national markets in the EU apply zero VAT rate on books (France, Spain, Germany), but the majority of countries (over 95%) apply special (reduced) VAT tax on printed books and therefore support the entire industry chain. In the European Union member states, introducing a zero VAT rate on books is not so simple. Due to the VAT directive, the lowest tax rate is 5%. In justified cases, the government may take the initiative to introduce a zero rate (based on Article 395 of the VAT Directive), but the final decision in this case rests with the European Commission. The Polish government has just applied for permission to introduce a zero VAT rate on printed books. This is one way of dealing with the economic crisis caused by the Covid-19 pandemic. The VAT reduction / exemption lowers the price of the book and to some extent makes people more likely to buy a book. *The biggest difference*

[3] Detailed program description: https://ec.europa.eu/culture/sectors/books-and-publishing

between the standard VAT rate and the rate for books was in Norway, which has a standard rate of 25%, but printed books are at a zero rate (IPA & FEP 2018). In many countries there is a difference between the VAT rate on printed books and e-books. The highest VAT rate on e-books, 27%, was imposed by Hungary, closely followed by, for example, Croatia, Denmark, Norway and Sweden (all on 25%). The EU Directive allowing member states to apply reduced, super-reduced or zero VAT rates for electronic publications was adopted by the EU Council on November 6 and published in the EU Official Journal on November 14; entered into force on December 4, 2018.

Archiving

Most countries adopt integrated strategies to promote reading. On the one hand, international actions such as the UNESCO literacy program (1946) are being carried out, aimed at preventing illiteracy and ensuring that all people can read and write. The creators of this program believe that the ability to use writing strengthens the position of people, enables them to participate in society and contributes to the improvement of living conditions, including sustainable development. (more information on the program on the UNESCO website: https://en.unesco.org/themes/literacy-all) On the other hand, countries run social campaigns encouraging people to read, for example, the Polish campaign "All of Poland reads to children".

In reading promotion programs, a special role is assigned to flagship public institutions, i.e., public libraries, as they are inseparably connected with reading, but also specialist libraries – reference libraries – which fulfil the critical 'archiving' function in the field of science. In accordance with the progressive principle of decentralization of the organization and financing of culture, their establishment and financing are usually the responsibility of local governments. Usually, however, national libraries, as well as particularly important scientific, specialization or universities libraries, are institutions financed directly from government funds. Reading promotion has been one of the most important tasks of public libraries. Public financing cuts and universal access to digital resources are declining the role of public libraries. Many countries, incl. Great Britain, the Netherlands, and in 2015 also Poland, introduced the so-called Public Lending Rights (PLR). These are royalties paid on loans that compensate authors and publishers for losses from the proceeds caused by borrowing books from libraries. However, the digitization of the book market and the increasingly easier access to the printed word made such compensation insufficient. Another model of support is implemented in Sweden and Norway, where copies of most of the books published are purchased by state-related foundations and then sent to each public library (Ilczuk 2012: 76).

1.2 Production network configurations

The institutions that have historically supported the European trade in books are commonly justified in terms of the cultural and educational value they are ascribed. Traditional policy in this area is aligned with developing a functioning public sphere for nation states to support the generation and circulation of, and access to, knowledge, alongside expressions of (mainly national) identity and heritage. However, cultural and trade policy must respond to entwined marketisation and digitisation trends throughout the publishing production network, in order to preserve and curate the critical space of publishing in society: a space for debate, not simply for markets. Hence this final section of Part One presents a summary view of publishing production networks, loosely in accordance with the key phases, highlighting their organisational dynamics and the transformations they are facing. The bigger issue of the value of a public culture is not directly relevant to this project; however, the nature of a publishing industry that might serve a version of public culture certainly is – to be explored in empirical depth across our case studies. It is this broader social and regulatory agenda which concerns us in this section, specifically with respect to the implications and policy responses for: (i) sustainable business models (for authors and publishers); and (ii) the cross-cultural exchange of knowledge and value (connecting authors, readerships and other actors). This leads us, finally, towards an appropriate selection of case studies in Part Three.

The business of creation and curation

In literary publishing, a book/article expresses an idea, or communicates information, wherein uniqueness of theme and form itself constitutes the initial value of the publication. Original, outstanding stories form the backbone of publishing industry and are the most sought-after goods for their potential standout value in an increasingly competitive environment. Hence, the category of author is associated with a romantic individualistic notion of production, albeit one enshrined in law. An author of content is able to claim certain rights under the Berne convention: to be identified as the sole author; and for their work to be protected as an integral property. Yet the notion of individual creation is challenged by empirical studies, and legal dispute, about the processes that must take place to translate an idea into a text. In fact, as a legal category, it has become an increasingly misleading one as social and economic changes have ensued.

Because of the high up-front financial risk rooted in book publishing, the pressure to discover new, relevant and potentially bestselling books is growing, hence forming a new power dynamic between authors and other key actors of creation. Financed by shares in author's revenues, agents represent authors before publishing houses, negotiate their contracts (royalties, marketing) both in national and international markets (in cooperation with subagents), manage rights to works, translations,

adaptations and merchandise licences. Literary agents can increase their impact by positioning themselves as exclusive gatekeepers to big publishers and to the wider industry. They can play a central role in the matching process, wielding influence by inventing topics or story outlines they see as marketable by publishers and then searching for authors capable of creating the content. In such cases the author partially becomes a contractor or a performer. This trend can be clearly traced when reader demand is seen to contain significant potential. The extension of agents' competencies varies from author to author and from country to country. In Western Europe, literary agents play a pivotal role in the publishing industry – in the biggest markets (UK, Germany, France) it is virtually impossible to sign with one of the major publishing houses without agents' representation – while in Central Europe authors often sign directly with publishers. The presence of agents and their strong position implies a more complex production network, where a new actor appears between the publisher and the author.

Self-publishing presents one point of resistance to the power of the publishing industry and its gatekeepers. Digitisation has removed traditional barriers to entry, such as the material cost of typesetting, printing and distribution. Consequently, the author (novelist, journalist) retains control over the rights, royalties, production and distribution of his/her publication, by using online platforms enabling direct publication (digital and print on demand). Self-published books and newspapers are made available online by platforms and services (which now include also major online book retailers such as Amazon). Self-publishing accounts for a substantial share of all e-books published worldwide. Amazon's Kindle Direct Publishing account for 80% of all e-books published in English, over 40% of those are self-published titles. Self-publishing platforms are financed by shares in authors' royalties or direct money transfer from authors (service packages), they follow a one-stop shop model for authors and offer free tools of creating book and e-book design (templates), basic promotion mechanisms (price settings, discount, countdown settings), publishing platform and access to marketplace.

The publisher oversees and finances the full process of producing a publication, including content creation, editing, designing and digitising. These high cost activities have been some of the first to shift locations globally in the publishing world. The publisher – as the single biggest investor in the publishing production chain, taking up substantial financial and operational risk – retains control over the publication form and contents and is the key employer for a majority of actors in the industry. Simultaneously, authors are now widely expected to be actively engaged in supporting their books marketing/sales – added requirements that are time consuming and burdening. Being noticed and talked-about is arguably a far harder and more central task for today's publishing industry than production and distribution, so that authors are likely to accept the new obligations with the potential for increased royalties as the only remuneration for the extra effort.

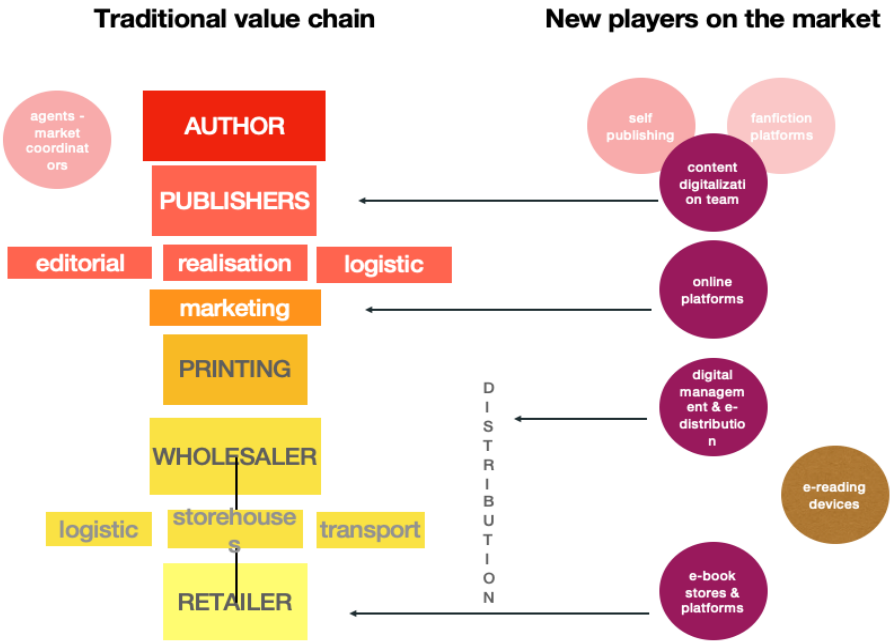
Distribution, dis-intermediation and re-intermediation

The publishing house dominates strategies of distribution, sets circulation levels and chooses distribution channels with respect to the product marketing plan and according to demand from

wholesalers and retailers. Wholesalers are often also storage space owners (warehouses, depots) and logistic solution providers, offering wholesale together with transport services to retailers. One logic reshaping the mass market for publications is the limited warehousing costs: greater diversity in stock costs more in terms of storage. Digitisation has generated much discussion the 'long tail' of unpopular stock potentially being available at zero storage cost (Anderson 2006); 'print on demand' titles are one manifestation.

Along with publishing and exchange this has been the field most transformed by digitization, particularly via dis-intermediation, due to the fall of distribution costs (see Table 1, above), and re-intermediation of new parties. Figure 2 illustrates these changing functions.

Figure 3. Value chain disintermediation



Centralised companies buying from publishing conglomerates and supplying bookstore chains now form the main distribution stream. Wholesalers' profits are formed by a cut in the publications' wholesale price, while their scale and international reach helps them dictate the conditions of bookselling (by negotiating lower wholesale price of published content and exclusive distribution deals). Advanced logistics – with high-tech engaged in managing large stocks and long-distance shipments – form the core of the wholesalers' position in the industry. European wholesalers usually operate in national (or same language) markets, where the UK has a unique position as global exporter of contents in English. Online platforms step into the wholesale and distribution role for digitised publications by redirecting the content to online bookselling stores, apps, news feeding systems and e-book/audiobook retailers.

The diverse distribution landscape of physical and digital channels offers both opportunities and challenges to publishers. The major/dominant distributors supplying (or owning) bookselling chains

and on-line stores use their scale to negotiate lower wholesale prices. As storage space and publishing brand owners there is a further risk of them promoting and marketing selected publications over a more mixed offer, centralising and decreasing diversity among the publishing industry's outputs. In some national markets, distributors enjoy a near monopolist position. This leads to the closure of small bookstores, for whom it is very difficult to survive on the market and compete with large companies. (which sometimes have many bookstores, their own storage spaces and their own distribution system). They try to attract customers with additional values: cultural events, unique atmosphere and associated services.

In short, the result has been a new business model, and different foci for profit in the industry. These ongoing changes precipitate shifting power relations within the production network and a recalibration of the existing tensions between public/private, commercial/non-commercial, and more fundamentally who 'owns' knowledge and information.

With 20% of book sales in Europe travelling as export goods (12% of which takes place within the EU), the storage and logistics companies become key actors in the international distribution chain. Online booksellers depend on fast and reliable shipments to buyers in different locations. Amazon's globally dominant position as the iconic online bookseller is largely based on the combination of broad offer and direct shipment within pre-announced period of time. Its distribution capacity is of special importance to publishers and retailers offering English-language publications but quick and reliable logistics are similarly significant for small and medium publishers (and self-publishing authors): all are competing for user satisfaction (typically measured in consumer feedback and ratings). As book sales shift online, a growing number of European publishers set up their own bookstores – as showrooms, brand exposing stores and physical emanation. Running one's own bookstore and direct distribution strengthens the brand's value and maintains a community of loyal readers (buyers, users) who can form a strong niche or a vast fandom, potentially kickstarting a publication's wider popularity. As noted above, digitisation changed the distribution of newspapers and magazines. With decreasing numbers and circulation of papers, printing presses – once individual – have been aggregated and shared. In some cases, presses have been set up in regional hubs; in others, news has simply become digital-only.

Retail markets and the public realms versus platform economies and social media

In the EU, 73% of its citizens use the Internet, 69% of whom shopped online in 2018 (Eurostat). An estimated 94% of citizens in advanced economies and 83% in emerging economies own a smartphone (PEW; Silver 2019), hence new on-line exchange channels in book and newspapers publishing have emerged. Published statistics suggest that print books are still evidently dominating the sales (e-book sales account for 7-8% of total book sales in Europe (Federation of European Publishers 2020), but the way readers (buyers) access publications is more often through on-line models. The e-book market faces different challenges and opportunities (see Cox 2004). Digital books form a fraction of book

sales, but enjoy a diversified and user-friendly network of distribution, including online stores, platforms and applications. The diversity effect is further enhanced by the cross-border distribution of digital content, enabling users to compare publications and pricing offered by different retailers in different countries, excluding shipment fees.

A concentration of large booksellers is reshaping the publishing exchange network, marginalising independent bookstores. The number of independent physical bookstores in Europe is falling, although significant national disparities can be observed. Multiple and new modes of accessing printed and digital content – through online bookstores and platforms, as well as general retailers developing their book offer (hypermarkets, general stores, Amazon, etc.) – have been created.

Social media form a new and dominant platform of exchanging publications, information and opinion. Social networking tools transform readers/users of published content into important redistributors, actively engaged with dissemination, redirecting it to new audiences. Publishers have been similarly incentivised to create channels of direct marketing, communication and transactions with its customers: placing them not as final recipients (passive), but as content and value creators (active). They are thus recast as "influencers" on reception and sales, driving the importance of pre-order and social media statistics. The buzz and content developed by the users online is a barometer of a book's success even while the creative process is still at an early stage. Consequently, and moreover, this influence does not just inform publishers' marketing and distribution strategies but increasingly the actual book product itself (in the form of reader-driven publications and fandom influence).

The creation/maintenance of clean and consistent (meta)data for tracking, discovery, accounting and analytics purposes drives this part of the business more intensively than physical publishing (Clark and Phillips 2019: 24) – work and data which has become a core commodity in itself. Thus key actors, such as Amazon, are unwilling to release information on sales figures for books and Kindles as it is commercially valuable and our knowledge in this area relies on estimates. More generally, as more trade is on-line, there is a notable deficit of on-line trades in public accounts. The net result is that it becomes increasingly difficult to monitor flows of value: the trade in *data about data* escapes measurement in the public sphere.

The long tail for whom? Social and economic values of meta-data

Libraries and archives protect and store published content, both in print and digital forms. International archives and library projects are found in Europe, bringing together national libraries repertories and publications (European Digital Library). Publishers and media outlets create further online repositories of current digital produce, where extensive information on back catalogues or archived editions is available from multiple commercially-owned entities. In a period of economic austerity, libraries have undergone a paradigm shift: requiring investments in technological infrastructure, amid demand to acquire the newest and most accurate publications, in direct

competition with alternative sources of publication and knowledge. All these institutions' technological facilities increasingly enable on-line and mobile access to their index: digitising existing repertory and acquisitions of digital publications for virtual collections have become core functions, intensified by user-generated expectations. As large amounts of (digital) content are published at increasingly rapid pace, and new sources of knowledge emerge, 'access' dominates over the 'storing and archiving' function.

As the primary means of both physical and digital access to scholarship, university libraries constitute a central institution at the heart of the scholarly publishing network. This position is predicated on complex licensing subscriptions and storage arrangements with publishers which have become considerably costly and thus a source of some tension for libraries with budgets under pressure (Thompson 2005: 99-102). Publishers tend to practice 'bundling' of journals, as a means of retaining control over pricing mechanisms – leading to push-back from some libraries and academics, including boycotts and illegal services (Brienza 2012; Fox and Brainard 2019; Machin-Mastromatteo, Uribe-Tirado and Romero-Ortiz 2016).

Commercial online booksellers, as well as news and magazine websites offer access – via search engines and archives – to vast resources of information and published content e.g. Amazon now serves as a popular search engine and directory for publications on a particular subject. The metadata that relates information together is the raw material of a vast new industry. This is one reason that large tech companies have been so helpful in public digitisation projects (such as Google Books): opening access to analogue data and allowing the development of sophisticated data mining, which then becomes a new source of value. Hence the apparent privatisation of public knowledge constitutes a less obvious – perhaps more insidious – trend.

Sustainable business practices

The transformed (digital) business environment for newspapers is instructive here. There has been significant debate regarding the aggregation and representation of news articles free of charge through online services – social media platforms, newsfeeds, RSS systems – often in partial form, to a targeted readership. Major search engines and social media companies represent substantial competition for press publishers. These take a large share of advertising revenues from the news content they surface, which is fragmented and often distributed without acknowledgment of the source and publishers' brand. Newspapers are left with only a fraction of their readership reached directly. Falling readership leads to further decline in advertising revenue. In the United States, newspapers have lost more than US$35bn in advertising revenue and 47% of newsroom staff over the past 15 years; over 1,800 newspapers have been closed or acquired – first locally/regionally, then nationally – leaving more than three million people with no newspaper at all, and at least a thousand have become "ghost newspapers," with little original reporting (PEN America 2019). Although there is no comparable EU data, the pattern is likely to be similar. The uncertain economics of newspapers

and magazines have led to journalists moving into freelance work across a number of publishers; it has also changed newspapers to a 24/7 operation rather than daily or weekly.

This changing production context has knock-on effects for content. 'Free' access to online articles has created the expectation that news is treated as information transmission, rather than creative/editorial production. An unregulated and highly competitive digital market has incentivised a rapid turnover of stories and headlines that are, by turns, attention-grabbing, recycled, poorly-evidenced or otherwise misleading (signalled by a new vocabulary of 'churnalism', 'clickbait', 'hot-takes', 'viral' media and 'fake news'), as well as an emerging market for high-quality longform content. New models are still emerging based upon pay-to-read, or subscription, and the online press and magazines market is now restructuring the value of unique and trusted news content, and rebuilding readerships, gradually approaching a more sustainable model – a common strategy being to deliver unpaywalled content as a means of attracting regular readers who might be funneled into paying customers with exclusive content. The constant search for readers has accelerated the convergence (and sometimes displacement) of written reporting/comment with visual and aural content, itself demanding new and hybrid professional skills.

The dynamic changes affecting online news (and its convergence with entertainment content) are echoed in the book publishing market and its associated ‘‘literary culture”. Books are increasingly seen and marketed as fast-moving-consumer-goods, with production schedules compressed to meet shifting interests and fashions. In some respects, the universal, long lasting value of books is compromised, as is (arguably) the quality. Literary value is increasingly relativised, with novels/essays produced faster and in direct competition with non-literary publications (often available online); these are placed alongside one another in bookstores and retail outlets, marketed to consumers as similar or related products. As well as presenting a potential challenge to dominant publishing industry actors and gatekeepers, the emergence of self-publishing, user-generated content and processes of convergence also ‘‘disrupt” the normative (more specialised or romanticised) conceptions of authorship.

In some senses, this approaches the model of scholarly knowledge production, albeit in a less formally centralised and integrated system. Turning to academic publishing, then, we find a ‘‘research culture” structured symbiotically with the demands and organisational characteristics of higher education (including universities and libraries) and other scholarly communities (Thompson 2005), which is challenged to meet the societal, business and policy needs of a broader ‘knowledge economy ’ (Jessop, Fairclough and Wodak 2008). Whilst there have long been university presses, these are small compared to the major houses, and almost non-existent in the field of journals. A significant challenge to the major publishers (e.g. Elsevier and Thompson) has been free online journals (such as PLOS). However, the business model of scientific journals is based on repeat subscriptions by university libraries. Given the relatively low production costs (effectively ‘free labour’ by academics), post-digitisation this model has become a site of tension between the academy and the publishers.

Cross-cultural exchange

The traditional custodians of publishing culture include institutions such as trade bookfairs, public libraries and bookshops, and the broader critical sphere (of influential agents, reviewers, public intellectuals). Again, the changing environment and practices of news media poses key questions for both literary and scholarly publishing cultures. When articulating polarised and extreme opinions offers competitive advantage, what are the trusted methods for seeking out published material, and of maintaining its quality? How far is the move away from the elite gatekeeping of 'charts' and monopoly domination counterbalanced by the erosion of trusted critics and intermediaries? Is online debate restricted to cultural 'bubbles' and/or in danger of 'capture' by media organisations? And so on.

The substantial loss of independent bookstores and the kiosk network in Europe due to increased operating costs is largely seen as harmful to the diversity of publishing output, especially for smaller and medium publishers and niche publications. Independent bookstores combine the role of distributors, opinion-makers, trendsetters and culture disseminating centres. Much of this is difficult to digitise and bookshops retain some of their role in mediating between production and consumption and thereby in constructing and maintaining both economic and symbolic value (Steiner, 2015; Wright 2005). However, the curation function is increasingly automated by algorithm-driven retail platforms such as Amazon; meanwhile there has been an expansion of the use of evaluative communities in market-shaping activities, in the form of sales charts, user reviews, tastemakers, book clubs, literary prizes and festivals (Childress and Friedkin 2012; Driscoll 2014; Miller 2000; Murray 2015; Striphas 2009).

Another indicator of international centralisation is the annual participation in large-scale publishing events like book fairs and book festivals. The significance of book fairs is closely related to the growth of book festivals, which have emerged across Europe in recent years – to some extent replacing the culture of the bookstore. As measures of support to the weakening readership, they place literature in a more central position of wider field of entertainment and creative industries; as a new source of recommendation and trendsetting, they fill in for the weakening role of media and critics. These are cultural events for readers, with literary entertainment programs accompanying sales, often presenting international authors. Literary events and festivals are growing in numbers and attendance, some (e.g. UK's Hay Festival) becoming global brands in themselves, with local editions in several continents. Others focus on supporting unique genres or local communities. Book festivals offer unique personal interactions and author-reader relations in a compartmentalized industry (Weber 2018). By both facilitating circulation and presenting literature as living, present and accessible, festivals work to strengthen literature's position in a competitive environment of other cultural activities.

Libraries, which are economically weak and in danger of being positioned as mere repositories, have also seen closures. Both digital and physical libraries offer new services, placing them closer to the exchange networks. With growing digital resources and mobile services, as well as cultural activities programmes, libraries take up functions of cultural centres (active) against traditional role of repertory holders (passive). Today's public libraries are no longer just places granting access to books. Even in small communities, they play the role of cultural centers, offering residents not only events and work space, but also a meeting place. They also counteract digital exclusion by providing computers connected to the Internet and assisting in their use. This shows a significant change in the role of libraries. In larger centers, when public funding allows it, libraries are often housed in modern, iconic buildings (e.g., The Library of Birmingham designed by the Mecanoo studio or the University of Warsaw Library with gardens on the roof designed by Marek Budzyński, Zbigniew Badowski). Through initiatives like Open Access and Creative Commons, the archive of publications freely available online has helped develop exchange platforms, building up the availability of various publications for education, cultural heritage and research. Yet there remain questions over the ownership of public knowledge, and responsibility for investment in its infrastructures; as well as how, and to whom, a return on such investment is being fostered.

Regulatory responses

Two major regulations seem to be of crucial influence on both the publishing industry chain and reading culture. As indicated by the International Publishers Association, a zero VAT rate applied on books seems to be most effective in supporting the whole publishing network, including authors, publishers, as well as libraries and exchange actors. This administrative policy has not been introduced widely across Europe, however. Only Ireland and UK apply 0% VAT but the majority of countries (92.6%) apply special (reduced) VAT tax on printed books and therefore support the entire industry chain (IPA, online access: 04.02.2020). The VAT reduction/exemption lowers the price of the book and to some extent makes people more likely to buy a book.

This notion, however, is not yet sufficiently supported by practice and empirical evidence and should be seen as a component in a complex landscape of factors influencing reading culture and publishing chains. The price of a book, although a significant element of decision-making and access to literature, seems to be less crucial to the entire production chain as an abundance of literary produce is available, with major discounts or for free, both in physical and online distribution and other exchange channels. The publishing industry output grows year-on-year, with increasing numbers of new books/magazines entering the market and growing number of accompanying publications (reviews, recommendations, opinions, comments, clippings, quotes, marketing materials); hence supply is soaring, both in absolute numbers and in the subjective reception of users and consumers (IPA & WIPO 2016).

Another significant administrative measure applied to support publishing industry chain are fixed book prices, which allow the books to be distributed for a price already fixed by publishers (in

coordination with booksellers) usually for an agreed period of time. This system has been known and tried in many national book markets for more than a century, however its influence on publishing market has been mixed (Clark and Phillips 2019: 35-36). On the one hand, books, as objects of culture, gain special status compared with other consumer goods and can be more equally distributed by small and independent bookstores (physical and online). Niche publications can be internally "subsidised" by publishers using funds gained on bestsellers to publish and distribute titles with lower market potential, allowing better risk management.

Copyright regulations in national and European levels aim at the better protection of authors and publishers from unlawful use and distribution of the published content; however, the further regulations go, the bigger the risk of blocking what becomes most important part of publishing and exchange process – sharing and informal usage of published content. On national and European levels regulation has limited the quick development of open and exchangeable resources and the creative re-use of archival content. In the ongoing discussion about protecting the rights of creators and authors of cultural goods, it is important to acknowledge the significant change of the reader's status in the publishing production network. Those who used to be final recipients of a published good are now important co-creators of the book's (or magazine's) value by sharing/posting/recommending and creating transformative works. Readers are increasingly aware of their influence on the success and failure of cultural product, hence their new attitude towards access as main advantage and value of a published material.

A book (magazine) which is difficult to access (e.g. because of protecting rights, limited distribution, language barriers) can be instantly forgotten, omitted or rejected by potential receivers. Easy access and sharing options are taking central stage in the whole exchange of literary culture. Publishing industry consumers, especially on-line, are increasingly skilled in searching for and finding cheaper access to books (e.g. by finding discounted, by using informal / illegal platforms of data exchange). The online environment offers both free and payable literary products adding to the change in value-shaping process. Being able to present, share, comment on published content itself becomes a cultural value and an asset to internet users. The more accessible a published good becomes (also in condensed form, e.g. as a review or recommendation, or any other ersatz or symbolic representation of the product itself), the higher its position and cultural value rises. On the other hand, with FBP applied the market is unable to freely shape the price of the published product and the connection to actual demand is compromised.

Government and inter-government regulations influence the publishing industry chain mostly with respect to the publishing-distribution relations, but change little in what seem to be much more crucial phase of the publishing process, that is: creation and exchange, both of which are intensifying and increasingly less dependent on funding and institutional links. The numbers of authors and creators are a growing (as is the number of books published and self-published each year globally), as is the creative activity of readers as commentators, sharers, reviewers – both those factors are observed as

consequence of social media proliferation and seem to be independent from levels of investment or administrative measures.

With respect to cross-cultural exchange, the management of multiple contributory actors to the publishing industry emerges as the central problem space for structures that would continue to undergird the notion of a transnational public sphere – particularly where the downward pressure on costs favours products aimed at global markets. At stake is the transmission, translation and synthesis of multiple forms of knowledge and value, of which language presents only the most obvious example. In scientific publishing, English has rapidly become the *lingua franca*. However, the maintenance of regional expression and identity is everywhere challenged by the dominance of English, and to a lesser extent Spanish and French. Under the Berne Convention, authorial rights protect individuals but not communities or languages. Moreover, they are cast in terms that relate to the control of use of the printed book. Translation to the digital realm can be controversial as it may confer, or eliminate, particular controls. A generic issue is the potential for crude forms of *de facto* "censorship" via restrictions on access. More specifically, one effect is that minority language communities are poorly served by the (for-profit) publishing industry.

Further research into and material support for intermediary professions, such as agents and translators, alongside those mediating spaces which develop markets and "reading cultures" – physically, in bookstores, libraries, fairs and festivals; digitally, in social media and online discussion and evaluation fora – may play a role in remedying this situation. As language differences still form a major obstacle in international publishing and English constitutes both modern *lingua franca* and the first language of many internationally published and renowned authors, literary agents provide crucial connections between the national publishing markets in Europe and worldwide. Translators remain a vital source of authority and recommendations to both literary agents and publishers in choosing books for translation and publishing abroad. Although well-recognised by industry, to some extent translation is an underappreciated linkage point in a production system that is cross-territorial, constituting a form of value that is difficult to "disrupt".

1.3 Conclusions

A GPN approach leads away from the traditional, Romantic notion of the author-genius and towards a view of a territorially dislocated production system, in which multiple imbalances and tensions of power and control are evident. Accordingly, in Part 3 we will move to examine distinct models in the manipulation of rights that enable navigation and coordination at this network, or system level. One model is a reorientation of the author in terms of a "human brand" – a brand perceived to be human, sometimes equated with "celebrity" like J.K. Rowling or Michel Houellebecq – as a vital part of both contemporary culture and the contemporary market economy (Russel and Schau 2010). In other

words, authors become “self-products”, widely recognisable – sometimes equal to, or more so than, their work – and a way of bundling rights in coherent, meaningful packages. Artists offer exemplary instances of image-creation in the service of building a recognisable look, name, and style, as part of a position strategy and a will to leave a legacy. Successful artists can be thought of as brand managers, extensively engaged in developing, nurturing, and promoting themselves as recognisable “products” in the competitive cultural sphere (Schroeder 2005); or indeed public influencers, or curators, through their promotion and recommendation power. As bundles of images, rights, capital and resources, they become institutions in their own right. In such cases, the independent author stands at the centre of a distributed production network, attempting to skilfully leverage value to control the network, cross territorial scales and shape culture. Another model is to subsume authorship within the entrenchment of the hierarchically-integrated transnational firm, such as we typically see in scientific publishing. The latter exhibits marked differences from trade publishing both in its network structure and in its “culture” e.g. its dynamics of collaboration and competition, temporalities of production and application, and its practices of “quality control”: editorial activities and (double blind) peer review are fundamental activities, charged with upholding standards of scientific rigour and quality. These are underscored to some extent by the normative ideal of scientific knowledge and progress as universal, and so relatively “placeless”, while scientific researchers are assumed to be highly mobile individuals. The dynamic here, then, is to justify the enterprise of knowledge, as delivered in serial publications, through subscriptions or free at the point of access, with the global knowledge enterprise.

This then, forms the basis of our exploration of these models in Part Three of the report. Before doing so, we seek to establish what we do and do not know, can and cannot say, about the existence and characteristics of European publishing, conceived as a global production network. Hence, in Part Two, we undertake a quantitative analysis by phase and by territorial region, evaluating quality and availability of existing data on that basis.

PART 2. Statistical mapping of the publishing industry

2.1 Quantitative analysis of the publishing industry

In this part of the report, we aim to provide a quantitative map of European publishing conceptualised as a global production network, as 'seen' from the perspective of the Eurostat database. The main challenge here is that statistical taxonomies of employment and industry, as found in the standard Nomenclature of Economic Activities (NACE), have partial coverage. In comparison to other cultural and creative industries, publishing is in fact relatively well-served by existing taxonomies, especially in the production phase. Nonetheless, our main finding is simple: that the statistical picture remains very far from complete. Moreover, the standard representation does not engage with power over flows of materials and economic value, or control within firms and across the industry. While giving an indicative view, therefore, a quantitative analysis of publishing is sparsely and inconsistently populated using existing data and taxonomies, rendering the GPN largely invisible, and so highlighting the need for the in-depth qualitative research we go on to explore in the next part of the report.

2.2.1 European publishing data

A full methodology is available as an appendix. In brief, however, here we seek to represent, as accurately as possible, the five phases of the publishing cycle – creation, production, distribution, exchange and archiving – and examine its distribution across European nations.

In relation to the latter, our aim was to explore how:

1) the publishing cycle as a whole *within nations* [Phase on Cycle %]
2) the distribution of each phase of the cycle *between nations* [State on Total States %]

We base this analysis on two datasets:

a) enterprise data [PU11]
b) employment data [PU16]

Extracting and manipulating the data accordingly produces four distinct tables. However, difficulty arises in the selection of appropriate NACE codes within Eurostat, which are commonly either too generic or simply non-existent. In order to represent as many industry activities as possible in sufficient detail, through internal discussion, we selected codes according to two 'definitions' of the industry: a 'minimal' definition [MIN], in which only codes specific to publishing are included; and an extensive definition [EXT], which includes both minimal codes and more generic codes that clearly fall beyond the scope of publishing (see Table 4). Clearly the 'reality' will lie somewhere in-between.

Our first task, below, is to outline in more detail the problems and constraints when producing a statistical mapping in relation to these NACE codes. The choices we have made are explained and limitations highlighted. Given these limitations, our analysis produces eight data tables: within-nation publishing cycle and between-nation phases; each for enterprise and employment data; based on minimal and extensive definitions. Our second task, then, is simply to describe these tables, first in minimal and then extensive form. The discussion remains descriptive: while highlighting possible trends of interest in places, it does not attempt explanation.

Table 3. NACE codes for publishing: minimal and extensive definitions

Phase	NACE	Description	MIN	EXT
Creation	63.91	News agency activities		X
Creation	74.30	Translation and interpretation activities		X
Production	17.12	Manufacture of paper and paperboard		X
Production	18.11	Printing of newspapers	X	
Production	18.12	Other printing	X	
Production	18.13	Pre-press and pre-media services	X	
Production	18.14	Binding and related services	X	
Production	58.11	Book publishing	X	
Production	58.12	Publishing of directories and mailing lists	X	
Production	58.13	Publishing of newspapers	X	
Production	58.14	Publishing of journals and periodicals	X	
Distribution	47.61	Retail sale of books in specialised stores	X	
Distribution	47.62	Retail sale of newspapers and stationery in specialised stores	X	
Distribution	47.63	Retail sale of music and video recordings in specialised stores		X
Exchange	73.1	Advertising		X
Exchange	94.99	Activities of other membership organisations n.e.c		X
Archive	91.01	Library and archives activities	X	

2.1.2 Note on trade reporting and national data

Another source of data comes through national/regional/international trade bodies and company reports. Some place greater emphasis on flows of materials, and economic value, as well as the loci of

control within firms, and the industry. Many different national sources are available (see Appendix Two), which we do not elaborate here. Very often such reports are impossible (or very hard) to compare. The main source for Europe as a whole is the Federation of European Publishers' (FEP) report, "The Book Sector in Europe: Facts and Figures", as well as European Writers' Council. FEP provide information on full-time employment in Europe in the year 2019. They estimate the number of employees was at the level of 130,000 people and the entire value chain at more than half a million employees, or even 600-700,000 when taking into consideration printers, designers and others (FEP, 2021). However, these data are incomplete. It is worth noting that apart from the indicated specificity (Throsby 2001; Ilczuk 2015, 2018) of the artistic part of the industry, there is still a lack of precise data regarding employment in the publishing industry, due to its complexity. Apart from full-time employment, different types of contracts operate in different countries, which makes the collection of such data even more difficult. Therefore, the information presented in the report are subject to a large margin of error. Some particular issues faced include: a lack of retail sales figures, especially on e-books (hence the worsening quality of such data as a result of digitisation); associated inaccessibility of data from publishers; and the lack of royalty data available through national collection agencies.

For an indicative sense of the kinds of more granular detail it might be possible to collect, see Appendix Three reporting on a national survey of publishing in Poland. In that context, employment in publishing is similar to the European trend. The market is shrinking every year, although not to significant levels. According to estimates by PwC and the Analysis Library, between 2016 and 2020, the entire book market in Poland will shrink by 8-10%. In 2015, its value was estimated for about PLN 2.32 billion, according to the data of the Polish Chamber of Books. Despite more than a 6% drop from 2014 (Drapińska, Liberadzka 2017) this industry remains one of the biggest creative industries in Poland.

2.1.3 Open issues: selection and limitations of NACE codes

Creation

The creation phase is dominated by the category of the author: whether authorship is considered in literary, journalistic or scientific terms. However, NACE has no dedicated code for authors of written works, as they are typically self-employed and not an 'industry'. This is subsumed under the category of "artistic creation" (90.03) which is far too broad for these purposes. Consequently, the minimal definition of the publishing cycle produces no measurable activity.

The extensive definition also includes the curatorial activities of news agencies, such as Reuters and Associated Press (63.91); and those of translation and interpretation (74.30). The latter are crucial activities for facilitating the international spread of published works, and the travel of ideas more generally, and thus of particular relevance to the global production network of publishing. However, these codes extend well beyond the domain of the publishing industry.

The available codes exclude any possibility, even in the extensive definition, of assessing the conditions in which authorship is produced, such as workshopping and training: the infrastructure of developing ideas, professional know-how and peer communities.

Employee data is missing on both codes for Belgium and the Netherlands.

Production

The production phase, especially in relation to mass reproduction, is comparatively well covered by NACE. Consequently, while the minimal definition of the publishing cycle is poorly served in other phases, it is weighted by the availability of relatively detailed information for the Production phase. Publishing companies – including publishers of trade books, newspapers and journals – are accounted for under 58.1 codes. 18.1 codes cover physical printing and related services associated with books, newspapers and copyrighted materials. However, 18.12 is an expansive category, covering generic commercial printing of ephemera such as prospectuses, stamps, business cards and screen printing. 18.3 relates to all proofing, typesetting and data processing activities involved in preparing a text for commercial sale. 18.4 relates to the physical assembling and binding of books and printed material.

The extensive definition of Production also includes the manufacture of paper, card and other materials for printing on (17.12). However, data on numbers of employees is very patchy for this code, available for only thirteen of the EU 28 countries. Ireland and Czech Republic are missing both employment and enterprise data across a number of codes and so will be particularly underrepresented at the Production level.

Distribution

The Distribution phase concerns the movement of goods and services. A decision was made to include retail activities (47.6 codes) under distribution (rather than exchange), given the emphasis of flows on economic value (prices) in the distribution phase. Retail thus comprises the majority of activity here – primarily in physical stores, specialising in the sale of cultural and recreation goods. In the minimal definition, this includes bookshops, stores and kiosks. Otherwise, there is a notable lack of information on distribution, with insufficient differentiation of functions. The extensive definition also includes stores specialising in audiovisual goods. However, these codes do not appear to include digital retail and distribution activities (e.g. Amazon). Moreover, it is not possible to differentiate the sourcing of raw materials from other wood-based products. More investigation is required but it might be that distribution of books and newspapers is incorporated into the NACE codes for printing. There is no way of capturing transportation and warehousing specifically of published materials; NACE codes relating to these crucial activities are generic and so are excluded from the definition.

There is no employment data available for Slovenia under the Distribution phase.

Exchange

The exchange phase concerns the positioning of goods in a market, where negotiation of information and cultural/symbolic value is the core activity. This is a complex category but much activity is 'bundled up'. Marketing and advertising activities (73.1) appear here – although only in the extensive definition, given their spread across industries beyond publishing. Here too, the work of membership organisations, professional associations, interest groups and trade bodies (94.1) are included under the extensive definition.

It is not possible to isolate the specialist work of representing and positioning published works, however; for example, in book fairs and festivals. Hence, in its minimal definition, this phase is empty for publishing.

Archiving

The archiving phase includes, of course, the activities of libraries and archives (91.01). A category that includes cataloguing of audio and visual media, alongside printed material. Here the minimal and extensive definitions are the same.

There is no employment or enterprise data available for archiving in either Poland or Cyprus.

Total publishing cycle

Both the Creation and Exchange phases only have codes assigned under the extensive definition; this means that the minimal definition of the publishing cycle is made up only of data for Production, Distribution and Archiving phases. Hence this definition offers a particularly limited view of European publishing, and is weighted towards the Production phase (as discussed above).

Malta particularly suffers from this state of affairs, as data is available only for Creation and Exchange phases. Consequently, Malta is absent from the minimal definition entirely.

2.1.4 Quantitative analysis of the European publishing industry

Minimal definition

At the minimal level (i.e. no Creation and Exchange codes, leaving only Production, Distribution and Archiving), Production appears to constitute the majority (just under 60%) of all activity Europe-wide, while Distribution accounts for much of the rest (36%) – a proportion which loosely holds within all nations. This emphasis is heightened in Croatia, Denmark, Estonia, Finland, Lithuania, Slovakia, Slovenia and Sweden, where Production makes up over 80% of all measurable activity in each case. Archiving constitutes a small percentage of total activity, as a rule, but an exception here is the Netherlands where archiving constitutes over 26% of its publishing cycle. Ireland also sees relatively high levels of archiving (13.5%) and distribution (32%) in relation to production (54%).

Table 4. Breakdown of publishing cycles by phase within countries [PU11: numbers of enterprises] / [phase on cycle % min]

	Creation	Production	Distribution	Exchange	Archive	Cycle of production
EU - 28 (2013-2020)	0.0	63.0	37.0	0.0	0.0	100.0
Belgium	0.0	60.7	39.2	0.0	0.0	100.0
Bulgaria	0.0	45.5	48.1	0.0	6.4	100.0
Czechia	0.0	59.2	37.7	0.0	3.1	100.0
Denmark	0.0	80.5	13.3	0.0	6.1	100.0
Germany	0.0	54.4	39.1	0.0	6.6	100.0
Estonia	0.0	89.9	5.7	0.0	4.4	100.0
Ireland	0.0	54.2	32.2	0.0	13.5	100.0
Greece	0.0	50.2	42.3	0.0	7.5	100.0
Spain	0.0	47.2	44.6	0.0	8.2	100.0
France	0.0	69.8	26.4	0.0	3.7	100.0
Croatia	0.0	88.9	10.1	0.0	1.0	100.0
Italy	0.0	40.2	57.6	0.0	2.2	100.0
Cyprus	0.0	65.9	34.1	0.0	0.0	100.0
Latvia	0.0	77.2	17.5	0.0	5.3	100.0
Lithuania	0.0	86.0	11.7	0.0	2.3	100.0
Luxembourg	0.0	59.0	40.2	0.0	0.8	100.0
Hungary	0.0	70.2	24.6	0.0	5.2	100.0
Malta	0.0	0.0	0.0	0.0	0.0	0.0
Netherlands	0.0	60.7	12.7	0.0	26.5	100.0
Austria	0.0	62.7	29.8	0.0	7.5	100.0
Poland	0.0	74.7	25.3	0.0	0.0	100.0
Portugal	0.0	41.1	56.2	0.0	2.7	100.0
Romania	0.0	67.6	24.9	0.0	7.5	100.0
Slovenia	0.0	83.3	10.7	0.0	6.0	100.0
Slovakia	0.0	84.3	11.8	0.0	3.9	100.0
Finland	0.0	81.4	14.7	0.0	3.9	100.0
Sweden	0.0	88.0	12.0	0.0	0.0	100.0
UK	0.0	72.7	19.0	0.0	8.4	100.0
Total	**0.0**	**58.5**	**35.8**	**0.0**	**5.6**	**100.0**

Under the minimal definition, employment in publishing is overwhelmingly concentrated in Production (98.5% of total European workforce), with each nation registering at least 93% of its employees in this phase. Only Luxembourg counts above 1% of the workforce in Distribution. Slovenia (2%), Spain (3.7%), Greece (4.5%), Ireland (4.8%) and the Netherlands (6.7%) all see >2% of its workforce in Archiving.

Table 5. Breakdown of publishing cycles by phase within countries [PU16: numbers of employees] / [phase on cycle % min]

	Creation	Production	Distribution	Exchange	Archive	Cycle of production
EU - 28 (2013-2020)	0.0	100.0	0.0	0.0	0.0	100.0
Belgium	0.0	100.0	0.0	0.0	0.0	100.0
Bulgaria	0.0	98.1	0.0	0.0	1.9	100.0
Czechia	0.0	98.0	0.1	0.0	1.9	100.0
Denmark	0.0	99.4	0.1	0.0	0.5	100.0
Germany	0.0	99.3	0.0	0.0	0.7	100.0
Estonia	0.0	98.9	0.4	0.0	0.7	100.0
Ireland	0.0	94.9	0.3	0.0	4.8	100.0
Greece	0.0	95.5	0.0	0.0	4.5	100.0
Spain	0.0	96.3	0.0	0.0	3.7	100.0
France	0.0	99.0	0.0	0.0	1.0	100.0
Croatia	0.0	99.7	0.1	0.0	0.2	100.0
Italy	0.0	98.8	0.0	0.0	1.1	100.0
Cyprus	0.0	99.4	0.6	0.0	0.0	100.0
Latvia	0.0	98.8	0.3	0.0	0.9	100.0
Lithuania	0.0	99.2	0.3	0.0	0.4	100.0
Luxembourg	0.0	98.5	1.3	0.0	0.2	100.0
Hungary	0.0	98.3	0.0	0.0	1.7	100.0
Malta	0.0	0.0	0.0	0.0	0.0	0.0
Netherlands	0.0	93.3	0.0	0.0	6.7	100.0
Austria	0.0	98.9	0.1	0.0	1.0	100.0
Poland	0.0	100.0	0.0	0.0	0.0	100.0
Portugal	0.0	98.9	0.0	0.0	1.1	100.0
Romania	0.0	98.2	0.0	0.0	1.7	100.0
Slovenia	0.0	98.0	0.0	0.0	2.0	100.0
Slovakia	0.0	98.2	0.2	0.0	1.6	100.0
Finland	0.0	99.6	0.0	0.0	0.4	100.0
Sweden	0.0	100.0	0.0	0.0	0.0	100.0

UK	0.0	98.1	0.0	0.0	1.9	100.0
Total	**0.0**	**98.5**	**0.0**	**0.0**	**1.5**	**100.0**

In terms of how phases of the overall European publishing production cycle are distributed among the twenty-eight nations, the minimal definition is dominated by four countries: Italy, Spain, France and Germany – each register greater than 10%, and together comprise 55%, of all activity. The UK, Poland and the Netherlands are also significant across different phases and these seven nations comprise nearly 75% of all activity. 70% of all Production takes place in these seven; 76% of Distribution; and 80% of Archiving (excluding Poland where no data is available for this phase). No other country registers greater than 5% of the total cycle, or of any constituent phase.

Table 6. Breakdown of phases between countries [PU11: number of enterprises] / [state on total states % min]

	Creation	Production	Distribution	Exchange	Archive	Cycle of production
Belgium	0.00	1.92	2.06	0.00	0.02	1.89
Bulgaria	0.00	1.24	2.10	0.00	1.59	1.25
Czechia	0.00	0.76	2.03	0.00	1.00	0.76
Denmark	0.00	2.01	4.69	0.00	0.68	2.00
Germany	0.00	26.89	4.26	0.00	12.02	26.67
Estonia	0.00	0.47	6.50	0.00	0.22	0.47
Ireland	0.00	0.49	4.90	0.00	1.67	0.51
Greece	0.00	1.36	1.31	0.00	4.30	1.40
Spain	0.00	8.06	1.31	0.00	20.81	8.24
France	0.00	11.86	2.38	0.00	8.14	11.80
Croatia	0.00	1.12	3.34	0.00	0.13	1.11
Italy	0.00	8.77	1.71	0.00	6.86	8.74
Cyprus	0.00	0.16	3.48	0.00	0.00	0.15
Latvia	0.00	0.55	5.93	0.00	0.33	0.55
Lithuania	0.00	0.68	8.49	0.00	0.21	0.68
Luxembourg	0.00	0.08	3.77	0.00	0.01	0.08
Hungary	0.00	2.14	2.77	0.00	2.44	2.15
Malta	0.0	0.0	0.0	0.0	0.0	0.0
Netherlands	0.00	4.08	4.09	0.00	19.65	4.31
Austria	0.00	1.92	5.72	0.00	1.36	1.91
Poland	0.00	5.91	2.63	0.00	0.00	5.83
Portugal	0.00	2.01	1.71	0.00	1.54	2.01
Romania	0.00	2.23	3.91	0.00	2.60	2.23

Slovenia	0.00	0.55	0.00	0.00	0.75	0.55
Slovakia	0.00	0.65	5.37	0.00	0.71	0.65
Finland	0.00	1.91	3.45	0.00	0.46	1.89
Sweden	0.00	2.57	3.55	0.00	0.00	2.53
UK	0.00	9.60	8.53	0.00	12.51	9.64
Total	**0.00**	**100.00**	**100.00**	**0.00**	**100.00**	**100.00**

Trends for the distribution of employment, trends here generally match those of enterprises (at the minimal definition): the 'top seven' (Germany, France, UK, Italy, Spain, Poland, Netherlands) make up 75% of all employment. While this trend generally holds for the Production and Archiving phases, however, the Distribution phase has a quite different territorial make-up: 40.5% of which is accounted for by the UK, Lithuania, Estonia, Latvia, Austria and Slovakia (all >5% of the phase). Germany looms very large in this picture, constituting 26.7% of all publishing employment across the EU twenty-eight, buoyed by its role as employer of 26.9% of the Production phase – well over double the contribution of France (11.8% of the total cycle, 11.9% of Production phase), the next biggest employer.

Table 7. Breakdown of phases between countries [PU16: number of employees] / [State on total states % min]

	Creation	Production	Distribution	Exchange	Archive	Cycle of production
Belgium	0.00	1.92	2.06	0.00	0.02	1.89
Bulgaria	0.00	1.24	2.10	0.00	1.59	1.25
Czechia	0.00	0.76	2.03	0.00	1.00	0.76
Denmark	0.00	2.01	4.69	0.00	0.68	2.00
Germany	0.00	26.89	4.26	0.00	12.02	26.67
Estonia	0.00	0.47	6.50	0.00	0.22	0.47
Ireland	0.00	0.49	4.90	0.00	1.67	0.51
Greece	0.00	1.36	1.31	0.00	4.30	1.40
Spain	0.00	8.06	1.31	0.00	20.81	8.24
France	0.00	11.86	2.38	0.00	8.14	11.80
Croatia	0.00	1.12	3.34	0.00	0.13	1.11
Italy	0.00	8.77	1.71	0.00	6.86	8.74
Cyprus	0.00	0.16	3.48	0.00	0.00	0.15
Latvia	0.00	0.55	5.93	0.00	0.33	0.55
Lithuania	0.00	0.68	8.49	0.00	0.21	0.68
Luxembourg	0.00	0.08	3.77	0.00	0.01	0.08
Hungary	0.00	2.14	2.77	0.00	2.44	2.15
Malta	0.0	0.0	0.0	0.0	0.0	0.0

Netherlands	0.00	4.08	4.09	0.00	19.65	4.31
Austria	0.00	1.92	5.72	0.00	1.36	1.91
Poland	0.00	5.91	2.63	0.00	0.00	5.83
Portugal	0.00	2.01	1.71	0.00	1.54	2.01
Romania	0.00	2.23	3.91	0.00	2.60	2.23
Slovenia	0.00	0.55	0.00	0.00	0.75	0.55
Slovakia	0.00	0.65	5.37	0.00	0.71	0.65
Finland	0.00	1.91	3.45	0.00	0.46	1.89
Sweden	0.00	2.57	3.55	0.00	0.00	2.53
UK	0.00	9.60	8.53	0.00	12.51	9.64
Total	**0.00**	**100.00**	**100.00**	**0.00**	**100.00**	**100.00**

Extensive definition

Using the extensive definition introduces data for Creation and Exchange phases, producing much greater variation, compared to the minimal definition. Exchange activities dominate the cycle in a number of nations, registering more than half of all activity in fifteen cases; and over 85% in the case of Croatia (87%), Austria (87%, Denmark (92%) and Luxembourg (93%). By contrast, it is barely present in Italy (0.8%). One possible trend appears to be a loose correlation between the Creation and Production phases; in turn, these both seem inversely correlated to the Exchange phase. In other words, within countries, low concentrations of enterprises coded as Creation are roughly matched by low concentrations of Production and high concentrations of Exchange (and vice versa). However, the Czech Republic, Lithuania and the UK break this general trend: these show a closer relationship between Production and Exchange.

Levels of Distribution are relatively low overall: below 25% in all but one case – Italy being the notable exception (almost 50%). Archiving constitutes less than 5% of all activity in all cases, except the Netherlands (6.5%).

Table 8. Breakdown of publishing cycles within countries [PU11: number of enterprises] / [phases on cycle % ext]

	Creation	Production	Distribution	Exchange	Archive	Cycle of production
EU - 28 (2013-2020)	29.03	44.35	26.62	0.00	0.00	100.00
Belgium	17.47	31.76	20.80	29.95	0.02	100.00
Bulgaria	3.93	5.13	5.57	84.65	0.72	100.00
Czechia	58.48	15.21	10.55	14.97	0.80	100.00
Denmark	3.11	3.77	0.69	92.14	0.29	100.00

Germany	12.09	17.02	12.34	56.53	2.02	100.00
Estonia	16.44	24.43	2.21	55.72	1.20	100.00
Ireland	10.98	15.67	10.91	58.53	3.91	100.00
Greece	2.66	7.96	7.07	81.14	1.17	100.00
Spain	12.27	23.99	22.56	37.04	4.14	100.00
France	27.38	40.91	15.82	13.74	2.16	100.00
Croatia	2.99	9.09	1.03	86.78	0.10	100.00
Italy	14.94	33.39	49.01	0.83	1.83	100.00
Cyprus	9.34	11.38	6.28	73.00	0.00	100.00
Latvia	17.41	10.32	2.54	69.01	0.71	100.00
Lithuania	58.82	23.47	3.30	13.79	0.62	100.00
Luxembourg	2.66	2.26	1.69	93.36	0.03	100.00
Hungary	36.91	39.53	14.27	6.35	2.95	100.00
Malta	0.00	0.00	0.00	100.00	0.00	100.00
Netherlands	21.03	15.02	3.65	53.79	6.51	100.00
Austria	3.96	5.36	2.76	87.29	0.63	100.00
Poland	28.20	42.93	14.87	14.01	0.00	100.00
Portugal	16.53	17.12	23.68	41.55	1.12	100.00
Romania	16.16	42.16	16.06	21.02	4.60	100.00
Slovenia	11.37	12.40	1.60	73.75	0.89	100.00
Slovakia	25.84	27.13	4.01	41.78	1.24	100.00
Finland	8.48	9.28	1.93	79.88	0.43	100.00
Sweden	14.66	20.06	3.23	62.05	0.00	100.00
UK	4.44	33.57	9.58	48.55	3.86	100.00
Total	**13.80**	**20.10**	**12.63**	**51.56**	**1.92**	**100.00**

In line with the minimal definition, Distribution (0.01%) and Archiving (0.5%) remain comparatively absent from the overall (extensive) breakdown here; however, the introduction of Creation (to some extent) and Exchange (in particular), produces a more mixed picture. Estonia (53.5%) and Cyprus (37.4%) register proportionately high levels of employment under Creation. These notwithstanding, the vast majority (around 97%) of the European publishing workforce is distributed between Production and Exchange, with a general inverse correlation between these two phases – suggesting further inquiry into the delineation between these phases is warranted. At one end of the spectrum, for example, there is a dynamic where Production dominates while Exchange is minimal: in Italy (96.6% / 1.5%), Romania (88.2% / 6.3%), Poland (85.4% / 13.4%) and Hungary (81.2% / 16.6%). At the other end of the scale, Production acts as a far smaller source of employment, while Exchange is correspondingly much more important, in countries like Luxembourg (6.9%/86.9%), Denmark

(9.1%/90.4%) and Greece (10.8%/88.2%). Countries such as Finland, Spain and Latvia appear more evenly balanced between these two phases.

Table 9. Breakdown of publishing cycles by phase within countries [PU16: numbers of employees] / [phase on cycle % ext]

	Creation	Production	Distribution	Exchange	Archive	Cycle of production
EU - 28 (2013-2020)	4.74	95.26	0.00	0.00	0.00	100.00
Belgium	0.00	60.07	0.02	39.91	0.01	100.00
Bulgaria	1.82	23.41	0.01	74.31	0.44	100.00
Czechia	8.15	38.93	0.04	52.12	0.76	100.00
Denmark	0.52	9.06	0.01	90.37	0.05	100.00
Germany	0.32	31.38	0.00	68.11	0.18	100.00
Estonia	53.48	19.94	0.08	26.36	0.14	100.00
Ireland	4.97	33.41	0.12	59.81	1.69	100.00
Greece	0.52	10.83	0.00	88.17	0.48	100.00
Spain	0.39	45.68	0.00	52.33	1.59	100.00
France	3.91	76.08	0.00	19.32	0.69	100.00
Croatia	9.34	18.72	0.02	71.88	0.03	100.00
Italy	0.78	96.60	0.01	1.48	1.12	100.00
Cyprus	37.38	14.74	0.10	47.78	0.00	100.00
Latvia	1.70	42.59	0.14	55.19	0.38	100.00
Lithuania	11.70	66.23	0.24	21.53	0.30	100.00
Luxembourg	6.05	6.90	0.10	86.93	0.02	100.00
Hungary	0.75	81.23	0.04	16.61	1.37	100.00
Malta	5.81	0.00	0.00	94.19	0.00	100.00
Netherlands	0.00	33.62	0.01	63.97	2.40	100.00
Austria	2.18	30.10	0.03	67.37	0.32	100.00
Poland	1.18	85.39	0.01	13.42	0.00	100.00
Portugal	10.43	38.13	0.01	51.03	0.40	100.00
Romania	4.17	88.15	0.05	6.25	1.38	100.00
Slovenia	11.28	29.84	0.00	58.27	0.61	100.00
Slovakia	2.06	38.14	0.11	59.07	0.62	100.00
Finland	1.43	57.86	0.02	40.56	0.13	100.00
Sweden	1.12	25.28	0.01	73.60	0.00	100.00
UK	1.54	30.33	0.01	67.53	0.59	100.00
Total	**2.07**	**36.46**	**0.01**	**60.97**	**0.49**	**100.00**

The spread of phases across nations also differs slightly from the minimal definition, appearing a little less unevenly balanced. The 'top seven' (Germany, France, UK, Italy, Spain, Poland, Netherlands) is similar to the minimal definition, making up 70% of the Production phase, for example; while Italy, Spain, France and Germany continue to dominate (e.g. 65% of Distribution). At the level of the total production cycle (i.e. all phases), however, Poland disappears, replaced by Greece; and these seven countries now comprise under 55% of all activity across the cycle. While European Archiving again appears to be almost exclusively concentrated in these countries (almost 85%), there is also some variation within other phases: the Czech Republic appears important for Creation (10% – slightly higher than Germany); the Exchange phase shows relatively high levels of activity for Denmark, Malta, Austria and Bulgaria (each 7-8%). (N.B. the high ranking of Malta for Exchange activities here suggests that the absence of data elsewhere could be significant).

Table 10. Breakdown of phases between countries [PU11: number of enterprises] / [state on total states % ext]

	Creation	Production	Distribution	Exchange	Archive	Cycle of production
Belgium	2.50	3.12	3.25	1.15	0.02	1.97
Bulgaria	1.21	1.08	1.87	6.97	1.59	4.25
Czechia	10.19	1.82	2.01	0.70	1.00	2.40
Denmark	1.04	0.86	0.25	8.20	0.68	4.59
Germany	10.00	9.66	11.15	12.51	12.02	11.41
Estonia	0.42	0.43	0.06	0.38	0.22	0.35
Ireland	0.65	0.64	0.71	0.93	1.67	0.82
Greece	1.36	2.79	3.94	11.08	4.30	7.04
Spain	8.59	11.53	17.26	6.94	20.81	9.66
France	14.38	14.75	9.08	1.93	8.14	7.25
Croatia	0.56	1.16	0.21	4.33	0.13	2.57
Italy	7.80	11.97	27.95	0.12	6.86	7.20
Cyprus	0.25	0.21	0.18	0.52	0.00	0.37
Latvia	1.13	0.46	0.18	1.20	0.33	0.89
Lithuania	2.71	0.74	0.17	0.17	0.21	0.64
Luxembourg	0.16	0.10	0.11	1.55	0.01	0.85
Hungary	4.25	3.12	1.79	0.20	2.44	1.59
Malta	0.00	0.00	0.00	7.43	0.00	3.83
Netherlands	8.83	4.33	1.68	6.05	19.65	5.80
Austria	1.19	1.10	0.90	7.00	1.36	4.13
Poland	7.43	7.77	4.28	0.99	0.00	3.64

Portugal	3.16	2.24	4.94	2.12	1.54	2.64
Romania	1.27	2.28	1.38	0.44	2.60	1.09
Slovenia	1.34	1.01	0.21	2.33	0.75	1.63
Slovakia	2.05	1.48	0.35	0.89	0.71	1.10
Finland	1.27	0.95	0.32	3.20	0.46	2.06
Sweden	4.28	4.02	1.03	4.84	0.00	4.02
UK	2.00	10.39	4.72	5.86	12.51	6.22
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Under the extensive definition, employment trends are similar to those seen in the overall publishing cycle based on Enterprises. The Distribution phase also replicates the employment geography seen in the minimal definition. The inclusion of Exchange exaggerates Germany's outsize role further, seemingly employing 32.2% of the entire EU publishing workforce – more than three times the next biggest employer, the UK (10.5%). Denmark and Sweden (missing elsewhere) appear as the third and fourth largest employers for the Exchange phase. Perhaps surprisingly, 20.3% of overall European employment in the Creation phase appears to occur in Estonia.

Table 11. Breakdown of phases between countries [PU16: number of employees] / [state on total states % ext]

	Creation	Production	Distribution	Exchange	Archive	Cycle of production
Belgium	0.00	1.95	2.11	0.78	0.02	1.19
Bulgaria	1.55	1.13	2.11	2.14	1.59	1.76
Czechia	2.54	0.69	2.16	0.55	1.00	0.64
Denmark	1.88	1.84	4.36	10.99	0.68	7.41
Germany	4.97	27.72	4.77	35.97	12.02	32.20
Estonia	20.28	0.43	5.35	0.34	0.22	0.78
Ireland	1.16	0.44	5.06	0.47	1.67	0.48
Greece	1.10	1.30	1.58	6.34	4.30	4.38
Spain	1.22	8.03	1.58	5.50	20.81	6.41
France	10.91	12.05	2.28	1.83	8.14	5.78
Croatia	9.42	1.07	4.50	2.46	0.13	2.09
Italy	1.14	7.94	1.84	0.07	6.86	3.00
Cyprus	6.31	0.14	3.25	0.27	0.00	0.35
Latvia	0.35	0.50	5.41	0.38	0.33	0.42
Lithuania	1.92	0.62	7.49	0.12	0.21	0.34
Luxembourg	1.13	0.07	3.51	0.55	0.01	0.39

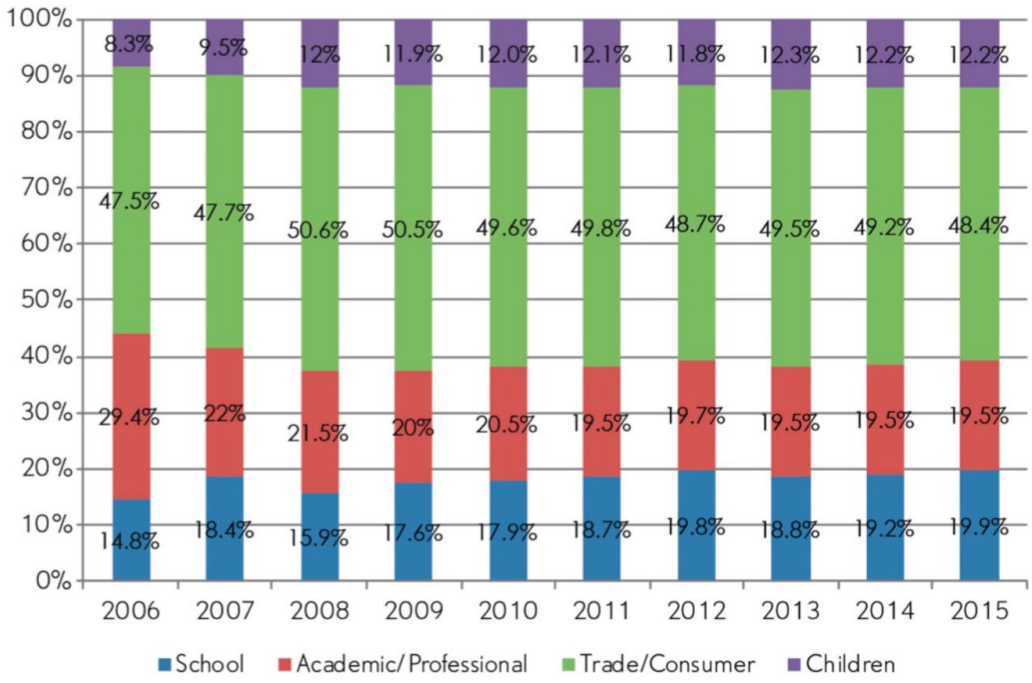
Hungary	0.32	1.94	2.78	0.24	2.44	0.87
Malta	2.88	0.00	0.00	1.58	0.00	1.03
Netherlands	0.00	3.70	3.86	4.21	19.65	4.01
Austria	2.22	1.74	5.58	2.33	1.36	2.11
Poland	1.47	6.03	2.72	0.57	0.00	2.58
Portugal	9.51	1.97	1.81	1.58	1.54	1.89
Romania	1.86	2.23	3.92	0.09	2.60	0.92
Slovenia	3.29	0.49	0.00	0.58	0.75	0.60
Slovakia	0.56	0.59	5.35	0.54	0.71	0.56
Finland	1.22	2.80	3.57	1.18	0.46	1.77
Sweden	3.02	3.88	3.27	6.75	0.00	5.59
UK	7.80	8.70	9.80	11.58	12.51	10.46
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

PART 3. The case studies: analysis and results

3.1 Case studies in the publishing industry: setting the scene

The four broad categories of the European book publishing industry, as reported by the Federation of European Publishers, are: educational (school books, ELT); academic/professional (higher education, dictionaries, encyclopaedias, scientific, technical and medical (STM), humanities, social sciences, management, etc.); trade/consumer books (fiction, non-fiction, literature, essays, manuals, practical books, leisure, art, belles lettres, comics, etc.); and books for children and young adults. Notably, this does not include STM journals or newspapers.

Figure 4. Publishers' net turnover in the EU + EEA broken down by subindustries (2006-2015)



Source: FEP survey (elaboration by FEP)

As discussed in previous sections, existing reporting on firms and employment figures can give a broad overview of industry size and change over time but enables very little insight into the specific character of these actors, and the locations, relations and distributions of power among them. Our two case studies seek to highlight distinctive iterations of publishing industry production networks across European regions (and beyond): independent trade publishing, and the internationalisation of the

author as human brand, embedded in locality and language (starting in Krakow); and scholarly publishing, as a global operation shaped by a lead firm (starting in London).

3.1.1 Brief description of the cases

Our first case is that of the author Wisława Szymborska, a Polish poet, essayist and translator. Awarded the Nobel Prize for Literature in 1996, the proceeds helped found a cultural foundation to protect her legacy, including her rights, and to support other writers. Szymborska, who died in 2012, is therefore captured as a (human) brand – that is, a bundle of rights organised within a meaningful container associated with her name and imagery – where meaning is derived from a readership deeply embedded in the localised Polish context, and a global profile achieved through translations, adaptations and prizes. The second case is based on an anonymous, prestigious medical journal. The latter is owned by a learned society based in the UK with a well-established history, although its authors and readers are international in scope. It is published by a transnational publishing corporation. While the case of newspapers/journalism is often considered a third area of the European publishing industry, we do not pursue a case study in this domain. Written news media have reached an advanced stage of cross-media convergence and hence provide some indicative directions for part one of our report. Our chosen cases constitute distinct production systems and value chains, differently embedded in their respective regional systems, exemplifying divergence in terms of culture, organisation and governance. They each present their own methodological challenges. Despite this, there are shared (European) cultural policy concerns regarding the role of protecting authorship, expanding readership and managing intellectual property rights. Both are equally concerned with the regulation and validation of "quality" in written outputs: in one case, concerning the need to protect and promote a localised cultural identity; in the other, amid concerns over public access to, and trust in, scientific knowledge and expertise. These broadly shared imperatives highlight a set of policy concerns that must respond to institutional transformations – in regard to which our two contrasting cases have been selected with the aim of shedding complementary light on the specific underlying critical mechanisms.

Even beginning with a specific case, there are many possible ways of constructing a realistic border-crossing network, potentially comprising many thousands of potential "nodes", and clearly it was not possible to trace, not to mention interview, every actor involved in each case. Instead, we sought interviewees in every phase of the GPN production cycle, supplemented with background knowledge and informal conversations. Notably, we were able to conduct a degree of sense-checking and corroboration for both case studies, with reference to secondary cases with a high level of similarity: two Nobel prize-winning Polish authors; two scientific journals owned by learned societies. Even where our access was limited, therefore, it is nonetheless possible to construct a network across the range of actors and processes that define each case, exploring dynamics at each phase in some depth.

3.1.2 Case study methodology

The author-brand

As the CICERONE project aims to investigate the global production network with relation to national/regional embedded actors, for our first case we have chosen an international but strongly locally-engaged figure. An initial contact with Olga Tokarczuk was unfortunately abandoned after her Nobel prize win in 2019, due to the difficult organisational situation in her team – although the subsequent rise in her international profile over the course of the project was instructive to follow from a distance. Instead, our field research is based on the example of Wisława Szymborska, a previous (1996) winner of the Nobel Prize for literature. The qualities of her books as well as her persona led us to the conclusion that she could be seen as a 'human brand' resonating widely with the culture, economy and society of the present. We paid particular attention to the Foundation bearing Szymborska's name, charged with maintaining her brand profile. Thus our case study demonstrates not only the creation and operation of a personal brand, but also its duration after the poet's death. At the same time, the choice of a Polish Nobel Prize winner is justified due to her worldwide recognition.

To be able to map Szymborska's human brand production chain, we used in-depth interviews. We conducted fourteen conversations, mostly online due to the COVID19 pandemic. We start our field research by exploring the moment of creation, most directly connected to the writer, aiming to shed new light on the written goods' author, as a persona influencing other parts of creative industries, as well as many different aspects of culture and social life. Our entry point was Michał Rusinek, president of the Wisława Szymborska Foundation, former secretary of Szymborska, professor, literary scholar, lecturer at the Jagiellonian University and writer. Thanks to him, we made contact with other interlocutors. The second person who introduced us to the specifics of this market was Paulina Wilk, an expert on the publishing market, journalist and writer, and organiser of the popular festival in Warsaw – the Big Book Festival. In addition, we talked with specialists, representatives of publishing houses, a translator, the artist's agents, festival organizers, etc. Not all of our interlocutors worked directly with Szymborska. However, they were a valuable source of information about the network.

Role (*Indicative)	Institution	Phase	Location	Function
Michał Rusinek	Wisława Szymborska Foundation	Creation	Cracow	Copyright owner as a board member of Foundation
Marek Bukowski	Wisława Szymborska Foundation	Creation	Cracow	Copyright owner as a board member of Foundation
Ewa Bolińska-Gostkowska	Znak (publishing house)	Production	Warsaw	Specialised supplier
Paulina Wilk	Big Book Festival	Exchange	Warsaw	Customer

Marta Szadowiak	Projekt PR (PR agency for literature)	Production	Gdansk	Specialised supplier
Abel Murcia	Spanish translator,	Production/ Exchange	Warsaw	Specialised supplier
Beata Motyl	Motyle książkowe	Distribution	Warsaw	Specialised supplier
Kamila Kanafa	Macadamia Literary Agency	Creation/ Production	Warsaw	Specialised supplier
Magda Cabajewska	Macadamia Literary Agency	Creation/ Production	Warsaw	Specialised supplier
Maria Strarz-Zielińska	Graal Literary Agency	Creation/ Production	Warsaw	Specialised supplier
Patrycja Lewandowska	Trochę o duszy	Exchange	Warsaw	Customer
Beata Stasińska	expert	-	Warsaw	expert
Barbara Budyńska	Stowarzyszenie Bibliotekarzy Polskich	Archive	Warsaw	Specialised supplier
Sylwia Chutnik	Literary Union	Creation	Warsaw	expert

In the case of data from the publishing industry available in Poland, the greatest difficulty is their dispersion. The multitude of methodological approaches and the diversity of data make them complementary, but difficult to compare. In addition to cyclical research carried out by, among others, Statistic Poland, the National Library of The Polish Book Institute in cooperation with the Biblioteka Analiz (a commercial data provider in this field), many individual studies are carried out. Data on reading habits are particularly popular. The annual report on reading in Poland, issued by the National Library, is always widely commented on in the media. In addition to this report, the Library also provides data on the condition of libraries and Polish Publishing in Figures. The largest report by The Polish Book Institute concerns the book market.

STM Publishing

The network of scientific, technical and medical (STM) publishing is quite distinct from literary publishing. In particular, authors are not just creators but also play important roles in editorial and review, as well as being primary consumers/readers/users, within a network of production and distribution structured largely through the involvement of transnational corporations. A number of initial conversations suggested that learned societies occupied an interesting position in relation to these networks, for their historic role connecting specific disciplinary communities, often embedded within a specific territorial locale, with global research and publishing operations. As such, they potentially embody and reveal relations of power and forms of leverage between these actors, spaces and scales. After contacting multiple societies, two willing participants were found, both of whom

required anonymity. The first formed a suitable entry point into a cluster of associated actors, which we give the following pseudonyms: the "Journal of British Medicines" (JBM), owned by the "Society of British Medicines" (SBM), and published by the publishing company "Global STM Publishing" (Global), an international market leader. The "JBM" therefore allowed access to a transnational industry network nonetheless embedded in a national disciplinary community. The second, a quantitative social science journal, is similar both in terms of its UK location and global network embeddedness, as well as its history and current prestige, while representing an alternative discipline (which, as discussed below, we treat as analogous to literary 'genre'); it is less present in our discussion below, providing instead a second background perspective on similar mechanisms.

Twelve semi-structured interviews were conducted via video call, between April 2021 and January 2022, each lasting between 45-120 minutes. Interviewees were reached through a loose snowballing technique: beginning with existing contacts at universities and journals, who either recommended or introduced colleagues and suppliers, supplemented by "cold" invitations via company web forms or using social media. Most interviewees are employees, most exhibited caution and a majority requested anonymity. Access was a recurring issue, in some cases requiring multiple follow-up requests or reassurances over interview content, in order to gain sign-off from superiors or communications departments. Unfortunately, access was not always granted and we were unsuccessful with respect to some important actors: a JBM editor; the head of a lab specialising in medical research; or a third-party "publishing services" (i.e. typesetting and content management) firm. In the first two cases, interviewees are practicing scientists and requests were rejected simply due to a lack of available time. Here we made use of our own knowledge as academics and editors or editorial board members – albeit from a different disciplinary (humanities and social science) perspective. In the third case, actors are relatively invisible: initially difficult to trace, once a potential contact was found, requests were met with silence or did not progress.

Given the nature of this project, we also consider this invisibility instructive, telling us something about the operation of the network: employees in publishing companies found it difficult to identify particular individuals carrying out work two steps down the chain and intermediaries could not gain permission from superiors to make contact; in addition, websites lacked email or phone information or provided contact details that were not answered and, in one instance, connected to customer services for a generic workspace provider. Any substantive gaps in understanding were addressed by drawing from company websites, recruitment documents, annual reports, trade reporting (e.g. reports from the International Publishers' Association, World International Property Organisation and International Association of Scientific, Technical and Medical Publishers) and secondary literature – and here we briefly note the sheer volume of academic literature that has been conducted on different aspects of academic practice and conduct (so-called "research on research" or "meta-science"), that often make use of citation monitoring services (such as Web of Science). Reflecting on the caution of actors, the relative inaccessibility of some parts of this network, and the heightened reflexivity of others, is a useful exercise when considering power relations and therefore treated as a finding in itself.

Role (*Indicative)	Institution	Phase	Location	Function
Executive Manager*	Independent trade publisher / Formerly major academic publisher	Production	London	Specialised Supplier
Head of Library Resources	University	Archiving / Exchange	London	Customer
Head of Research Support Services	University	Creation	London	Strategic partner (civil society)
Repository and Research Information Leader	University	Archiving	London	Specialised supplier
Head of Technical Services	University	Archiving / Distribution	London	Specialised supplier
Head of Subscriptions and Acquisitions*	University	Archiving / Exchange	London	Customer
Production Manager*	Major Publisher	Production	Beijing	Specialised supplier
Journals Manager*	Learned Society	Creation	London	Creator
Production Manager*	Major Publisher	Production	Oxford	Specialised supplier
Director of Community Outreach	Citation network organisation	Distribution / Exchange	London	Distributor
Journals Manager*	Learned Society	Creation	London	Creator
Project Officer	Funding body	Exchange	London	Strategic partner (civil society)

3.2 Case 1: Wisława Szymborska - poet as brand

Wisława Szymborska, who was born on July 2, 1923 and died on February 1, 2012, lived in Krakow, Poland, from 1929 onwards. From 1945 to 1948, she studied Polish Philology and Sociology at the Jagiellonian University. She made her debut in March 1945 with the poem “I'm looking for a word”, published in a supplement to Dziennik Polski. In the years 1953-1981 she worked for the weekly magazine "Życie Literackie", where she ran the poetry section and the book review column.[4] Throughout her career, Szymborska published 13 volumes of poems. Her poetry has been translated into over 40 languages. In Poland, her poems reach sales that compete with prominent prose writers, although, in the poem "Some Like Poetry", she wrote that "maybe" two out of a thousand people like poetry. In 1996, Szymborska was awarded with a Nobel Prize in Literature, "for poetry that with ironic precision allows the historical and biological context to come to light in fragments of human reality."[5]

Image 1. Wisława Szymborska receiving the Nobel Prize in Literature in 1996

Source: *Tributes.com*

[4] Https://www.szymborska.org.pl/szymborska/zyciorys

[5] The Nobel Prize in Literature 1996. NobelPrize.org. Nobel Prize Outreach AB 2022. Fri. 4 Mar 2022. <https://www.nobelprize.org/prizes/literature/1996/summary/>

About the Wisława Szymborska Foundation, we can read: “The Wisława Szymborska Foundation was established in April 2012 under the Nobel Prize winner’s last testament. As was her will, Teresa Walas, Michał Rusinek, and Marek Bukowski shall hold seats on the Board of Trustees. The foundation’s tasks are to attend to Wisława Szymborska’s literary legacy and, starting in September 2013, to grant an international poetry award in the poet’s name. There are plans for other awards and grants, as well as for comprehensive activities that aim at propagating literature and reading. The foundation will also provide monetary aid to writers who are in difficult financial situations.”[6]

A very important person for creating and maintaining Szymborska's human brand is Michał Rusinek, her long-time (1996-2012) secretary and president of the Wisława Szymborska Foundation. He was born in 1972 in Krakow. He is an assistant professor at the Department of Literary Theory of the Jagiellonian University, specializing in the theory of literature. Also known as author and translator of dozens of books for children and adults.

The main actors of the Szymborska human brand are connected with the creation phase. They have the greatest influence on how we see the poet. In the rest of the chain, it is almost impossible to point out the most important actors. Szymborska's books were published by many publishers in many countries, and many distributors worked with her books, her books are in many libraries, and several exhibitions devoted to her were organized. It is impossible to choose the most important of so many actors. Especially when we know that Szymborska appreciated both large publishing houses and small, family publishers in the same way.

Image 2. Wisława Szymborska and Michał Rusinek

Source: Weranda.pl

3.2.1 Phases

In order to identify the structure of the network, we divide its description into phases: creation, production, distribution, exchange and archiving, each of which is being explored below.

[6] Wisława Szymborska Foundation, *Basic Information,* https://www.szymborska.org.pl/en/foundation/basic-information/

Creation

A poem starts with an idea, often of a personal nature and individual background (interest, experience) of the writers. Szymborska's poems are considered simple, but at the same time steeped in deep intellectualism. The poet uses simple language to raise important, often philosophic questions. Her poems are characterized by surprise with the world, asking simple questions that lead the reader to reinterpret reality.

Image 3. Former apartment of Szymborska

Source: Weranda.pl

In order for the poems to be published in a volume of poetry, the author must sign a contract with the publishing house. An agent is often involved in this process. In Poland, very often some of the agent's tasks are taken over by the publishing house with which the writers sign a contract directly. The authors often struggle with negotiating this contract on their own. Wisława Szymborska did not have an agent. Instead, she had a secretary. For several months, Michał Rusinek was to help Szymborska to overcome the chaos that reigned in her life after awarding the Nobel Prize, but he became her secretary for 15 years.

> *For some time, I was signed as a "writer, secretary of Szymborska". When my scientific doctorate was published in the publishing house, journalists wanted to interview me, I asked them then, "If I wasn't Szymborska's secretary, would they like to do that?" They didn't answer that question, which was kind of an answer.*
>
> (Michał Rusinek, president of Wisława Szymborska Foundation)

After her death, following the poet's will, he established the Wisława Szymborska Foundation and, as the president, manages not only copyrights but also her legacy. Almost all of the money from the Nobel Prize were allocated to the Foundation. Prize let her also help writers in a poor financial situations, and acted for charity. Money, however, did not change her life - she only did a minor renovation of the apartment. The Foundation continue Szymborska's activities, by supporting authors with literary and poetic patronage. It also awards prizes and runs a welfare fund.

> *Szymborska supported people of the pen, who found themselves in a difficult situation, with grants. They wrote to her, and she chose to send them some money. I didn't know exactly how it looked like because she did it directly, I only got an order to make a transfer. What she did her own way, we had to organize in a kind of competition, where we have a committee and so on.*
>
> (Michał Rusinek, president of Wisława Szymborska Foundation)

Production

The Publishing house develops strategies of distribution, sets circulation levels and chooses distribution channels concerning the book marketing plan and according to demand from wholesalers and retailers. The publisher's tasks also include creating a marketing campaign. This is what Marta Szadowiak tells about it:

> *Writer has a choice, if he/she comes to the publishing house and the publishing house has to do everything for him/her, they need to signs different contract, than if she/he would be a co-creator of a communication or promotion strategy. It is also resulting in the amount of the rates that author gets for the sale of the book later.*
>
> (Marta Szadowiak, PR & marketing specialist)

Wisława Szymborska has worked with various publishing houses around the world (even in South Korea). We know from Michał Rusinek that she was not only guided by financial considerations in her choice of publishing houses. She often asked for the opinion of fellow writers, paying attention to which publishing house would provide the best quality of release and distribution. She has often supported small, independent publishers such as A5. This publishing house cares about the aesthetic side of the book, so Szymborska provided them with her collages to serve as illustrations and cover graphics.

Image 4. Wisława Szymborska

Source: https://i2.wp.com

Distribution

Wholesalers are often also storage space owners (warehouse, depots) and logistic solution providers, they offer wholesale together with distribution and transport services to retailers. Each publisher works with different distributors, usually a minimum of two for each title. The author has no control over who will distribute his books. Nevertheless, it is an important aspect that determines the presence of books in bookstores. Therefore, when several publishers from a given country approached Szymborska, she drew attention to their distribution plans. She wanted her poetry volumes to be easily accessible. Sometimes they might not be available on the shelves, due to out of print and not due to lack of distribution.

> *The publisher is looking for multiple distribution directions. Sometimes it goes to the distributor who proposes exclusivity. We never do this because we don't think it is attractive to the publisher or the writer. There should be some diversification because no distributor has the entire market. (...) And for a book to actually be found in many places, it should have at least two distributors.*
>
> (Beata Motyl, wholesaler and distributor)

Exchange

Literature is often a source of content for other industries. On its basis, films, games, theatrical performances and many others are made. In the case of poetry, it is most often used by the music industry. Many songs were created based on Szymborska's lyrics. "Nothing Twice" became one of the hits of the Polish band Maanam. There are also projects like Stubbornly Absent - "Commemoration - A Tribute to Wisława Szymborska", which is the first music project in Poland and the world with her poetry in English. There is also a new project, Little About Soul, which arranges music of various genres to Szymborska's poems. However, the poet's works have a much wider impact. The manufacturer of the Lamy fountain pen has released a special series signed by Szymborska. The clothing company Medicine sells clothes inspired by her poems. The poet has never participated in commercials, despite receiving such a proposal from, for example, a car producer. Michał Rusinek recalls:

> *Szymborska said that she did not want her image to appear on a purely commercial advertising background. She felt her readers were people who did not have villas with swimming pools. These mean ordinary people who are worried that they will not have enough money till the next pay check. She spoke to them rather than to others. She was afraid that if she would be too much of a poet for those with villas, the old ones would move away or they will see her through this luxury product. I know that she was very defensive and did not want to do interviews with colour magazines, which were for wealthy people. (…) And this was an obstacle when a foundation appeared, because the foundation was an institution that wanted to find a sponsor and a financial partner. And here it is known that it must be someone, some institution that is wealthy. So, creating this Szymborska brand was extremely difficult for me…*
>
> (Michał Rusinek, president of Wisława Szymborska Foundation)

Archiving

Libraries and archives protect and store published content, both in print and digital forms. It is not risky to claim that Szymborska's volumes of poetry can be found in almost every library in Poland (outside of technical libraries). The Jagiellonian Library, that is the library of the Jagiellonian University in Krakow, runs the Wisława Szymborska Archive. This collection includes twelve manuscripts written by the author, autographs, typescripts with corrections made by the author's manually and variants of her poems. It is a deposit of the Wisława Szymborska Foundation.

On the first anniversary of the poet's death, the National Museum in Krakow opened the exhibition "Szuflada Szymborskiej". The director of the museum, Zofia Gołubiew, in one of the press interviews said:

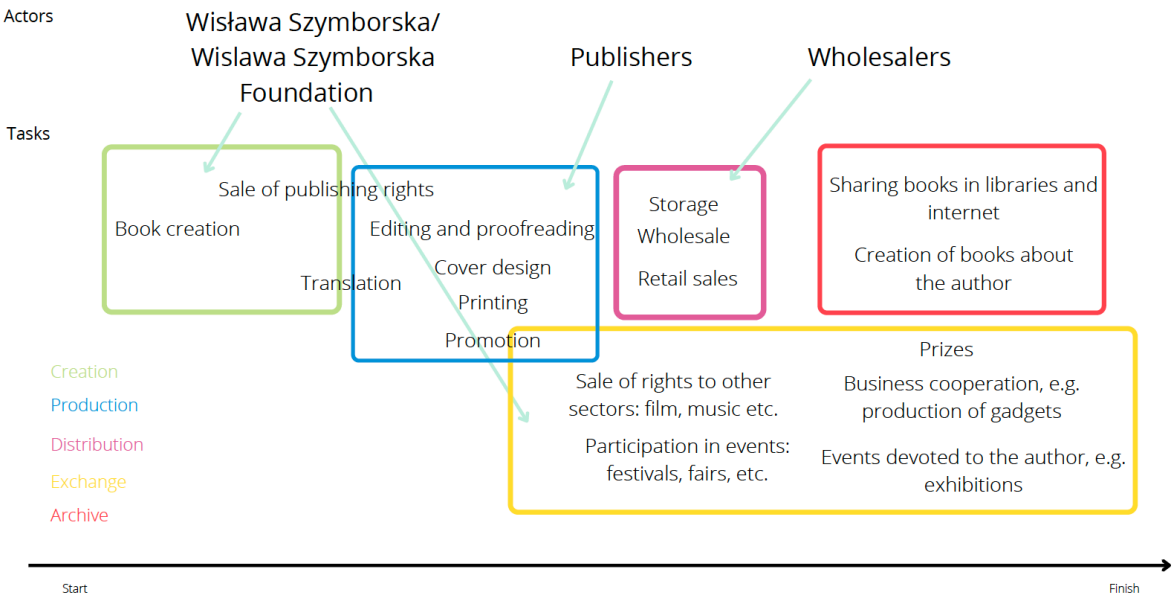
> *Wisława Szymborska was the Ambassador of the Gallery of 19th-century Polish Art in the Sukiennice, therefore - always grateful for this honour - the National Museum in Krakow*

made a proposal to the Wisława Szymborska Foundation, regarding some of the legacy of the Nobel Prize winner, that we would hand over a few recently renovated rooms in the Szołayski House to arrange an exhibition of the poet's collections, her knick-knacks, books, and items from her apartment with the famous multi-drawer chest and a sofa. We wanted these valuable artifacts not to be locked in a warehouse, but available to the public.[7]

(Zofia Gołubiew, museum director - press release)

Unfortunately, after seven years, the exhibition was closed on December 6, 2020 – for reasons unrelated to the Covid-19 pandemic, although, due to the pandemic restriction, the last curatorial tours were held online. However, the poet's mementoes can be seen again at the exhibition on the occasion of the tenth anniversary of her death, organized by the MOCAK Museum of Contemporary Art in Krakow.

Figure 5. The Szymborska Human Brand – Tasks and actors



3.2.2 Locations

The main location associated with Wisława Szymborska is Krakow, a city in the south of Poland, where she lived and worked. The Foundation named after her is also based there. She was and still is a writer widely read in Poland. The publishing market is very special because it is related to the language of

[7] https://lovekrakow.pl/aktualnosci/szuflada-szymborskiej-znika-z-kamienicy-szolayskich_38883.html

the country in which it operates – we are more eager to read literature in national languages – and poetry is no different. However, poetry is often more difficult to translate than prose, due to the large number of metaphors, the rhythm of the poem, etc. Thanks to many translators, who were the ambassadors of her poetry, such as Stanisław Barańczach or Karl Dedecius, her texts were translated into over forty languages. The moment of book globalization is its translation into a foreign language and the beginning of the next publishing process. Accordingly, her poems achieved their greatest popularity after 1996 when Szymborska won the Nobel Prize. Large publishing houses collaborated with printing houses in China, but the pandemic changed this arrangement in favour of Polish printing houses. As a result, the entire publishing process takes place in Poland.

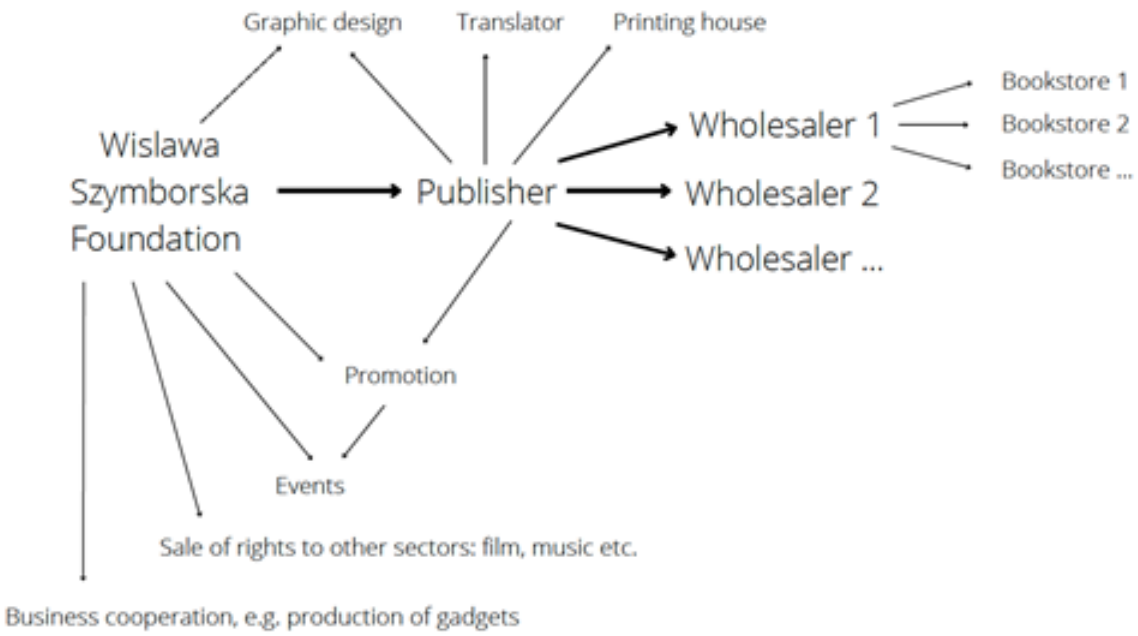
Figure 6. The Szymborska Human Brand – Actors and spatial footprint

3.2.2 Relationships between actors

Different actors of the GPN have different kinds of power. In most cases, the biggest decision power belongs to the publishers regarding not only the promotion, the appearance of the book, price, etc. but also the decision to accept the author/text in the publishing catalogue. Sometimes it happens that the publisher asks the writer for his/her opinion about the details of the publication – Szymborska once got a package from the United States with paper samples for the collector's edition of her book. According to the interviewees, from among the stakeholders of the network, distributors (wholesalers, retailers and warehouses) earn the most – often over 50% of the book price. That is why publishing houses have started retailing online.

> *More or less aware Polish readers know that over 50 percent of the retail price of the book is taken over by the distributors. And in order to buy this book cheaper or for the money to go more directly to its publisher and writer, the consumers of literature are increasingly buying books from publishers' websites.*
>
> (Paulina Wilk, expert and organizer of Big Book Festival)

Figure 7. The Szymborska Human Brand – Governance structure in the production network



Until the writer gains high recognition the publishers decide whether they want to publish the author/ text or not. In the era of social media and influencers, professional critics are losing ground as trendsetters. Online "book influencers", often specialising in a given literary genre, are enrolled to advertise books.

> *There is a division into those influencers who sign contracts with publishing houses for marketing activities and get money for it, or there are those who just want to receive packages with books. (…) There is a very big fight between those who approach it substantively: they come up with questions, collaborate with publishing houses or authors and do something more, and those who want to make a nice scenery and background for photos.*
>
> (Marta Szadowiak, PR & marketing specialist)

In the case of Wisława Szymborska's human brand, the poet herself was the person who holds the power, which she derived from being an established writer and notably winner of the Nobel Prize. Currently, this power belongs to the Wisława Szymborska Foundation, which has full rights to her works. Szymborska herself did not think about her poems and books in the context of creating her image and managing a human brand; nonetheless, she wisely played with “a shortage of supply”, being sure that there were not too many of her books in bookstores. She consciously wanted the reader to miss her. Her poems are addressed to the common man. All the publishing decisions she made with that in mind. Wisława did not want to be recognized as an "elite writer", claiming it would scare people away from her poetry. Michał Rusinek recalls:

She [Szymborska] told publishers not to reprints for a while, that it would be good if people kept asking, "Is there Szymborska? Not yet, but it will be "- to cause lack. She also cared not to tire the reader with her name lurking in the bookstore - which, after all, is a quite risky marketing and sales strategy. However, she believed that it was for non-economic reasons, but because she had enough of going to the bookstore and seeing Szymborska everywhere. She used to say "I'm sick of this Szymborska".

(Michał Rusinek, president of Wisława Szymborska Foundation)

3.2.3 Positioning the case within the typology matrix

In terms of the production of Wisława Szymborska as a human brand, Table 12 shows the territorial spread and concentration of power in each phase, as well as at the level of the network as a whole. The creation phase is very local: the author lived in Kraków and she mainly worked there. It is also the headquarters of the Wisława Szymborska Foundation, which is the owner of the copyright. It is the Foundation that makes decisions on usage of the author's image and works. The Foundation carries out its activities mainly in Kraków, making the author's apartment available for artistic residencies, awarding prizes and running an aid fund. At the same time, its activities are not only local but also global, as it covers events related to Szymborska with its patronage.

Table 12. The Szymborska Human Brand – Network actors and governance structure per production phase

PRODUCTION NETWORK PHASES	Local	National	Intra-EU	Global	Governance
Creation	Lead actor Specialised suppliers				
Production		Specialised suppliers		Specialised suppliers	
Distribution		Distributors		Distributors	
Exchange		Customers Consumers		Strategic partners (private sector) Specialised suppliers	
Archiving	Specialised suppliers			Specialised suppliers	
Network Level					Lead actor

Production takes place primarily at the national level. Publishing houses produce books for the domestic market, using national specialists (editors, graphic designers etc.). Only the printing stage was subject to the process of globalization, as the paper was imported (mainly from China). The pandemic demonstrated this global spread, disrupting supply chains and making it difficult and costly to import from Asia. Destabilization on the paper market was also caused by the strike of the Finnish

Trade Union of Paper Workers. The UPM concern, in which the strike took place, also supplies paper to Polish printing houses.

Distribution is of national character, as books written in native languages have almost no market outside the country. According to the interviewees, it is distribution that earns the most, often as much as 50% of the price of the book. The greatest moment of globalization in the chain is exchange. At this phase the licenses for Szymborska's works are made available to foreign publishers and other creative sectors, ensuring global recognition for the Nobel Prize winner. As a result, the archives of her texts in various languages are also global, which is possible especially thanks to the development of online archives.

As a consequence of the above, given that most of this activity is rights-based and hence requires consent of rightsholders, power within the network is very concentrated. Currently, the main decision-maker is the Wisława Szymborska Foundation. It is responsible for the selection of publishers, consent for translations and granting licenses for the use of author's works. Without the consent of the Foundation, no activity related to the legacy of the Nobel Prize winner will commence.

3.2.4 Dynamics and transformations

The biggest change in power distribution in the production network was the political transformation of Poland in 1989. Polish history has been turbulent: 123 years under foreign partitions, through World War II which demolished the state, ending with oppressive times under communist authorities, during which the market was centrally controlled, all publishing houses were state-owned, and their number was much smaller. Those historical turbulences have strongly influenced the organisation of the market in Poland, including those of publishing and CCIs in general. In this spatial and historical context, the notion of publishing houses as market-oriented entities is relatively new. Wisława Szymborska debuted with a poem in 1945. This means that in her work she had to contend with censorship in communist Poland. The first volume of her poetry was not published until 1952. In reality, however, she prepared her first book as early as 1949, but it was not allowed to be published because her poems "did not meet socialist requirements". She published 13 volumes of poetry, eight of them before the year 1990.

Beginning in the 1990s, publishing has been one of the fastest reshaping and rapidly growing industries, having been one of the earliest privatised markets in Poland. The departure from statehood was associated with a new era of risk on the market and the speed of a competitive system made for very low barriers to market entry: anyone could publish anything. But, as a relatively “young democracy”, trade and the market organisation of publishing are underdeveloped in comparison with e.g. the UK or the Netherlands. Changes in the publishing market did not stop Szymborska from publishing. Already in 1993, she published another volume of poems. As a well-known author, she had

no problems establishing cooperation with publishers. The Nobel Prize in 1996 confirmed her position in the market and ensured world recognition.

3.2.5 Impact

Economic impact

The Wisława Szymborska brand is currently in the hands of the Foundation named after her. The foundation does not create many jobs directly, employing a few people serving the secretariat and licensing the works of the Nobel Prize winner. However, as the owner of copyrights and the body that cares for Szymborska's legacy, Foundation indirectly contributes to the existence of many jobs both in publishing houses, publishing Szymborska's poems and other texts (professions such as editors, proof readers, translators, etc.) and other companies and institutions. Several exhibitions and events were devoted to the Nobel laureate. Specialist works with Szymborska texts or other legacies such as editors, translators, and illustrators are often based in places far away from the, based in Cracow, foundation's headquarters. The range of the poet's brand is global therefore lots of people around the world are involved in projects related to the writer.

As a manager of copyright and the poet's legacy, the Foundation has a huge impact on the entire production network. In the hands of this institution lies the power to decide in which events and projects the works of Szymborska will be used. However, all decisions are made with care for the author's brand. It is helped by the fact that all members of the foundation board: Michał Rusinek, Teresa Walas and Marek Bukowski knew the poet and collaborated with her. Szymborska's human brand is extremely important. It is her name, not the name of the Foundation, that plays the most important role and constitutes a strong brand.

The position of the human brand was significantly influenced by the Nobel Prize, making Szymborska recognizable all over the world, but also opening up many opportunities for monetizing this success. The poet has been invited several times to various commercials, including milk and car commercials. However, due to her nature, has always refused such cooperation.

> *Szymborska hated milk and when she was offered to participate in the social campaign "Drink milk, you'll be great", she was furious. How could anyone have figured out that she might encourage to drink milk?*[8]
>
> (Michał Rusinek, president of Wisława Szymborska Foundation)

[8] A. Sobańska, *Szymborska oczami Rusinka: Wydawała się żeńską wersją Piotrusia Pana,* interview for dziennik.pl, https://kultura.dziennik.pl/ksiazki/artykuly/513918,michal-rusinek-wislawa-szymborska-ksiazka-nic-zwyczajnego.html

Wisława Szymborska received 7.2 million SEK as the Nobel Prize. Money, however, did not change her life – she only did a minor renovation of the apartment. Almost all of the money from the Nobel Prize was allocated to the foundation of her name. The prize let her also help writers in a poor financial situations, and acted for charity. Currently, this activity is continued by the Wisława Szymborska Foundation.

> *For most of her life, she lived like poor intellectuals actually live. She got used to it, and Nobel Prize did not make her arrange herself a bathroom like Donald Trump. She changed her flat, but also into an apartment in a block of flats, she had furniture made of better wood there, but otherwise she lived the same way or on a slightly higher level. She did not think of herself in terms of someone who is a certain brand and that brand is associated with a certain business, especially in terms of generating income.*
>
> (Michał Rusinek, president of Wisława Szymborska Foundation)

Now anyone who wants to use Wisława Szymborska's work (a text, poem, collage) must purchase a license. They are bought for a specific time and fields of use. It is thanks to this, among other things, that the Foundation can carry out its activities right next to the property inherited by the author herself. They are based not only on promoting the brand of Wisława Szymborska and managing her work. The Foundation also continues its charitable activities and aids, offering contributions to creators and running residency programs. As a result, writers and translators of literature receive the support they need.

Unfortunately, purchasing a license is not always a simple process. Some artists are struggling with financial obligations to the Foundation. Many grassroots initiatives can hardly afford such expenses. Of course, the Foundation is happy to take honorary patronage overall activities promoting Szymborska's poetry. However, this does not always go hand in hand with financial aid.

> *The license are a gigantic money. 550 zlotys (about EUR 118) for one song for the internet platform. For just one track. Per year. Additionally, PLN 800 (about EUR 171) for public performance. Well, we have PLN 1,350 (about EUR 290) for one song, and I have 12 songs*.
>
> (Patrycja Lewandowska, project *Trochę o duszy*)

Paradoxically, in the book market, it is not the writers who earn the most. As a finding of research by the Dorota Ilczuk team shows, the average gross earnings for poets in 2018 was PLN 2,466 (about EUR 529). The average earnings of the prose writers were slightly higher and amounted to PLN 3,121 (about EUR 670).[9] Typically remuneration of the author is divided into an advance payment and a percentage of the number of books sold. Despite book sales rising during the Covid-19 pandemic,

[9] D. Ilczuk & others, Policzone i policzeni! Artyści i artystki w Polsce, Warsaw 2020.

writers' incomes fell significantly. In fact, most of their income comes from all sorts of events, such as readings, meetings with writers, and festivals. The earnings from such events significantly exceed the earnings from books.

Of course, the Nobel Prize guarantees certain financial stability and increases the recognition of the writer, which influencer the number of translations and cooperation with publishing houses.

> *On the day when Szymborska won the Nobel Prize, phone calls began – to find out who Wisława Szymborska was. It turned out that there is nothing translated into Spanish at all. But journals, magazines and so on had to write something. […] Then publishers that wanted to publish a Nobel Prize winner began to be interested.*
>
> (Abel Murcia, translator)

However, trade publishing has its specificity. Crime novels sell best in Poland and their writers do the best on the market. Poetry is specific not only because it is less read, but also because it is difficult when it comes to selling the right to profitable industries such as film. Hence, the earnings of poets are much lower than that of other writers.

Publishers are also not the highest-earning group. They bear the greatest risk when investing capital in the publication of the book and its advertising. However, according to the interviewees, from among the stakeholders of the network, distributors (wholesalers) earn the most - often over 50% of the book price. That is why publishing houses have started retailing online. This is a way for publishers to bypass the distribution. The books offered in this way are cheaper than in bookstores and the money goes directly to the publishing house. Therefore, prosumers choose to purchase books through publishing houses' websites.

Experts such as Michał Rusinek and Paulina Wilk confirmed that value, both financial and cultural, arises at the moment of creation when the author of literature creates his work. The next phase of the production network where new values arise is an exchange, which is where other industries draw from the book as a beginning of a new network. As mentioned earlier in the case of fiction and non-fiction literature, the industry most closely cooperating is film and performing arts. In the case of poetry, the most common sector of "exchange" is the music industry, where poems are used as lyrics. This situation means that value creation in publishing follows the smile curve.

Social impact

Ilczuk *et al*. (2018) defines the artists' labour market as highly deregulated. She points out:

> *Demand is having the greatest impact on the situation of the employed artists and creators. Artists and creators often perform work regardless of the level of remuneration, but also in*

the situation of exceptionally talented (or successfully promoted) artists, there may be extremely high remuneration. It is a market where incomes are uncertain, although they can reach very high levels. Professional success does not always guarantee a high level of financial stability. Non-permanent forms of employment dominate. The specificity of the Polish situation is that social security is starting to become a luxury for the richest. The low level of professionalisation of the market is reflected in the lack of a well-established position of intermediary institutions (employment agencies, managers).[10]

The publishing industry is a perfect example of this. In Poland, two types of contracts regulated by the Civil Code can be signed. These are a specific-task contract and a contract of mandate. The first is signed when the subject of the contract is copyrighted. The second, is when the person with whom the contract is signed, has a specific task that must be completed within a specified period. Importantly, such forms of contracts do not guarantee social security or employment stability. The writers are freelancers or self-employed. As content creators, they most often work on contracts for specific work. Unfortunately, contracts of this type do not provide them with social security in the form of health or pension insurance.

Only 3% of officially registered poets have an employment contract, while 36% work on contracts for specific works. As many as 58% admit that they work without any contract at all. The poor situation in the labour market means that on average only 23% of poets' income comes from creative work. The situation is better for prose writers. On average, 43% of their income comes from creative work. The vast majority of 63% work on a contract of specific work, but the percentage of non-contractual work drops significantly (26%). 4% of fiction and non-fiction writers work full-time.11 These data forcefully emphasize how internally diversified this market is and how the situation of poets differs from that of book authors.

The position of publishers in the labour market of writers in Poland is still quite strong but it doesn't monetize. Not too many agencies have developed and there are not too many managers. Often it is the publishers who take over the managerial role and are responsible for the copyrights of their authors. It is the publishers who negotiate the sale of film rights and, very often, translation of texts abroad. Therefore, publishers take over the role of managers, which makes the negotiating position of the writers much more complicated but also crucial.

In the West it is a bit different than in our country: not publishers, but agents or agencies have the rights to books. This means that various agencies sell books to publishers all over the world. When a given writer publishes in one publishing house in the United States, another in Great Britain, and a third in France, I do not write to these publishing houses, but

[10] D. Ilczuk, A. Karpińska, *The Labour Market of Artist, Free but not Wild,* Warsaw 2018 https://econjournals.sgh.waw.pl/EEiM/article/view/1285/1137

[11] D. Ilczuk & others, Policzone i policzeni! Artyści i artystki w Polsce, Warsaw 2020.

I need to know who the agent of this author is. It is agent who sells rights to all of us, including foreign law.

(Ewa Bolińska-Gostowska, publishing house)

To care for the interests of authors, collective copyright management organizations are established. In Poland, the ZAiKS Authors' Association plays the role of the oldest (established in 1918) and biggest organization responsible for the protection of copyrights and the payment of royalties. In the case of writers, however, royalties do not reach the same level as in the case of music creators. Wisława Szymborska was a member of ZAiKS from 1962 and an honorary member from 1998.

Due to the writers' difficult situation, Wisława Szymbroska donated part of her Nobel Prize to help other artists. While alive, this help was spontaneous and discretionary. After her death, when the Foundation took care of the poet's legacy, this process was regulated. Still, writers in a bad financial situation can apply for help.

Cultural impact

As a Nobel laureate, Wisława Szymborska is an icon of Polish poetry, and one of the greatest contemporary poets. Awarded in Stockholm on December 9, 1996, it was the fourth Nobel Prize for Polish writers. Szymborska herself denied celebrity. The publicity received after the Nobel Prize was exhausting for her (her friends called the prize "the Stockholm tragedy"). She didn't like giving interviews, even at the poetry evening in Stockholm Szymborska was represented by Teresa Walas. Szymborska emerged from all this Nobel fuss with her innate grace. Her speech begins with the words: *"Apparently, in a speech, the first sentence is always the most difficult. So I have it behind me ..."*[12]

Wisława Szymborska's poems are part of Poland's cultural heritage. Due to their unique nature, they are part of the core curriculum for children from grade IV of primary school and accompany students until the end of school education. This fact is not only due to the Szymborska becoming one of the few Polish writers awarded the Nobel Prize in Literature. She made sure that her poems were understandable to everyone, thanks to which they could also be read by children.

The Nobel Prize was of great importance for the culture and identity of Poles, making Szymborska's poetry as one of the most important elements of the national heritage. It was a turning point in Szymborska's professional life. Of course, she was loved by the Poles before that. However, it is the Nobel Prize, which the highest possible award, that is the reason for national pride. Thanks to such awards, it is possible to build a national identity, with a sense of a grand tradition, around the achievements of outstanding individuals such as Szymborska. It is also worth mentioning that Wisława Szymborska was the 4th laureate of the Nobel Prize in Literature in Poland, but also the first female writer to be honoured with this title.

[12] https://culture.pl/pl/wydarzenie/15-lat-temu-szymborska-odebrala-nagrode-nobla

Image 5. Polish Nobel Prize laureates in the field of literature (Sienkiewicz, Reymont, Kilosz, Symborska and Tokarczuk)

3.2.6 Policy implications

Wisława Szymborska once said: "Reading books is the most beautiful game that humanity has imagined". However, reading books is not only fun. The promotion of reading is an important part of the cultural policy of many (or even all) European countries. Language plays a very important role in building a national identity and is a carrier of cultural heritage. The level of readership affects the book market, influencing sales of individual titles.

Promoting reading is not easy. In 2020, 42% of Poles read at least one book yearly, but only 10% indicated to having read at least 7 books.[13] Government-supported reading promotion methods have remained largely unchanged over the years and focus mainly on media campaigns. Thanks to social media, several interesting initiatives were created, such as: "this year I will read 52 books challenge". The market for literary festivals has also developed significantly in Poland, attracting crowds of people interested in literature and creating a positive atmosphere around reading.

> *A few years ago, we also had a project promoting reading in Krakow, called Strefa Wolnego Czytania(Free Reading Zone). We did it together in cooperation with Gazeta Wyborcza. Our*

[13] National Library, *Stan czytelnictwa w Polsce,* 2020, Warsaw https://www.bn.org.pl/raporty-bn/stan-czytelnictwa-w-polsce/stan-czytelnictwa-w-polsce-w-2020-r.

idea was to create such a network of places that are reading and readers friendly. Our priority is to promote reading.

(Ewa Bolińska-Gostowska, publishing house)

The publishing industry, being predominantly private sector, is not heavily regulated. The most important laws concerning this industry are copyrights. As indicated by International Publishers Association, the zero VAT tax rate applied on books seems to be most effective in supporting the whole publishing network, including authors, publishers, as well as libraries and exchange actors. This administrative policy however has not been introduced widely across Europe. Only around 7.5 % of national markets in the EU apply zero VAT rate on books (Ireland and the UK), but the majority of countries (over 95%) apply special (reduced) VAT tax on printed books and therefore support the entire industry chain. The VAT reduction/exemption lowers the price of the book and to some extent makes people more likely to buy a book.

Moreover, the government supports industry development by creating various types of institutions, such as the Book Institute Poland, which is responsible, inter alia, for the promotion of Polish books abroad, and support the creation of translations. Of course, in the case of the Nobel Prize winner, such supports is less needed than in the case of less recognized writers who must attract foreign publishers.

At the beginning of its activity, when it was not a Book Institute Poland yet, but was just undergoing transformation, in the time of Albrecht Lemp, the Book Institute Poland launched a fund supporting the translation of Polish literature into foreign languages. If it were not for this fund, much less literature, including Szymborska's literature, would have appeared in the world.

(Michał Rusinek, president of Wisława Szymborska Foundation)

The Nobel Prize issue is an interesting issue. According to the regulations in Poland, the prize money should be properly taxed. There are no specific regulations exempting Nobel prize winners from this obligation. In individual cases, the Ministry of Finance exempted some people from paying the tax. This was done in 1997 by the then Minister of Finance, Grzegorz Kołodko, exempting Wisława Szymborska, the winner of the Nobel Prize in Literature, from tax. This situation repeated itself when, per the ordinance of the Minister of Finance, the collection of tax on the Nobel Prize for 2018, awarded to Olga Tokarczuk, was abandoned. However, each time this exemption takes place under a special regulation, it is not permanently entered into the provisions of Polish law.

3.3 Case 2: STM Publishing in the UK

3.3.1 Phases, actors, and locations

Actors

The Society of British Medicines (SBM) specialises in a hybrid medical subfield, in which basic science takes place in close dialogue with practicing medical professionals. The Journal of British Medicines (JBM), focusing on the former, is one of two "flagship" journals owned by SBM, the other specialising in applied clinical research; ownership of a third journal is split equally between SBM, its US equivalent, and the major publishing company, Global STM. The latter publishes all three journals electronically, with physical print copies having ceased production in the last ten years.

In addition to the JBM, SBM and Global, therefore, actors "upstream" (i.e. prior to submission) include teams of medical researchers, typically (but not exclusively) attached to university research laboratories, the specialist internal research support and library services that surround them; as well as external funders. Together these supply the specialist content (i.e. research submissions) without which there can be no journal, such that we can classify universities and funders as strategic partners. "Downstream" (post-submission), the journal, its editors and authors are supported by specialised technical systems and a production and marketing "back office" that is largely organised, but not wholly owned, by the publisher. This includes staff distributed across a transnational organisational structure and more fine-grained and labour-intensive manipulation of content (images and text) outsourced to third-party "vendors" (suppliers). In addition, a JBM publication will acquire a digital identity, enabling it to circulate with integrity and to be tracked as it does so, and be electronically stored in various forms of completion: in the publisher's internal systems, institutional repositories and third-party platforms and servers (such as ResearchGate, Academia.edu or a pre-print server). The university library – the longstanding key customer – enables researchers to access publishing archives through institutional subscriptions, completing the "cycle" of STM production.

We now explore these in more detail, by GPN phase.

Locations

Research and scientific writing is typically understood as a global enterprise of peers; likewise, the major scientific publishers are transnational corporations. The SBM/JBM case study exemplifies this global spread. While the society remains primarily national in its membership (around 25% of members are overseas), publication in the JBM is not limited to members. Hence, the journal does not adhere to national boundaries and actively seeks to increase coverage in certain regions. In this spirit,

the Journals Manager balanced a vision of science as 'placeless' against a sensitivity to both the 'soft power' of the British "brand" and to inequalities in international participation:

> *The majority of editorial boards are not in the UK. The majority of our authors are not in the UK. The majority of our readers are definitely not in the UK. I think part of the journal's cachet is the fact they have British in the name. […It] is just a bit of a brand, isn't it? … All academics, as you know yourself, kind of move around loads and cross borders and attend conferences around the world and have collaborations … So I think it's actually counterproductive for journals to be anything other than global and to be anything other than blind, as much as possible, to these kind of geographical borders.*
>
> (Journals manager, SBM)

Accordingly, an article might be authored by academic researchers in two non-UK countries, collaborating with a commercial laboratory in a third, funded by institutions in each of these. Perhaps surprisingly, however, the case study also demonstrates an embeddedness in a relatively localised set of actors and relationships. Hence, although one does not need to be a UK-based society member to publish in the journal, nonetheless – to take one journal article published in JBM as example of a single "output" from a funded research project – it is quite possible for the project's funder(s), university laboratory, scholarly society and a significant aspect of the publishing function to be located in a single region of one country: largely North and East London, with the Global STM editorial arm based in Oxford. This spatial footprint evidences the so-called "golden triangle" of basic and applied life sciences research in research-intensive institutions (London-Oxford-Cambridge) – with regional impacts, for example, in terms of agglomeration for the research and innovation ecosystem, as well as the cost of housing for researchers.

Deeper into the production phase of publishing, however, the network becomes more geographically diffuse, although not necessarily less locally embedded. Global provides JBM with editorial and author support operations in the UK, US, and across Asia, both internally and via third-party vendors. Some editorial support is located on the East coast of the United States, for example, while image-handling is based in Chennai, India and typesetting and proofing activities are in Manila, in the Philippines, and also in India, as is common with Business Process Outsourcing (BPO). The reason for these locations is typically given to be a concentration of a relatively cheap but highly-educated and English-language literate workforce. BPO activities are commonly understood to be major contributors to regional development through employment; as well as partnering with local universities for training and accreditation, the digital "publishing services" firms also tend to display and communicate a strong sense of corporate social responsibility and community outreach.

Phases

Creation

Society of British Medicines

The SBM is a learned society located in London, UK, and is relatively young in comparison with the broader field of British scientific societies, which date back to the early/mid-nineteenth century or earlier. Founded in Oxford as a space for UK scientists to share research and forge a national (and internationally competitive) disciplinary community of practice, primarily through annual meetings, and has a longstanding close connection with its US equivalent, which it retains. The SBM is established as a charitable body: it is not primarily a profit-making enterprise but is nonetheless financially healthy, typically running a small surplus. It has 20-30 permanent FTE employees, across four core functions: research dissemination (publishing, events, marketing); education, engagement, policy (public-facing activities); business development (new income streams); and operations and membership (back-office administration). A small but steady income stream is derived from the annual subscriptions of around 4,500 members, while the production of curricula, training courses, and clinical safety kits provide additional sources. However, journal publishing provides well over 80% of income, despite being a small organisational sub-unit (comprising two staff-members): after staff costs, the majority of this income cross-subsidises education and public engagement activities.

Journal of British Medicines

The JBM, founded several years after the society, is the leading journal of its kind internationally. It is online only, having ceased print publication some years ago, and is characterised as a hybrid journal: it is primarily subscription-based but also supports Open Access publications. Unlike some society journals, it has never been published "in-house": there has always been a relationship with a commercial publisher. There is a tripartite decision-making structure:

> *The most frequent sort of grouping of people making day-to-day decision making will tend to be the Editor-in-Chief, me [SBM Journals Manager] and then our points of contact at the Publisher because that then kind of covers all the three parties who are involved in the journals and the three people who are kind of needed to make things happen operationally.*
>
> (Journals manager, SBM)

The editorial, society and publisher roles therefore constitute three distinct contracting parties and three domains of expertise. The divisions between these are not explicitly codified (although doing so was under consideration), beyond guidelines set out by the SBM, Committee on Publishing Ethics (COPE) and by the International Committee of Medical Journal Editors (ICMJE).

Editorial decisions and policies reside wholly with an external editorial board of voluntary academics, led by an academic Editor-in-Chief who is appointed by the society. The editorial board is responsible

for managing, advising on and contributing to peer review of article submissions (also carried out on a voluntary basis, by external academics, subject to availability), as well as maintaining rigour across thematic areas. Senior editorial members are contracted by the society, paid honoraria to cover costs (not a salary), and are responsible for decision-making, in regular liaison with both the SBM and Global. They appoint board members in accordance with the need to expand coverage of sub-disciplinary topics, geographical spread or diversity. While performance expectations are not strictly set out, editors are contractually committed to a certain level of productivity:

> *What we do have in the Editor-in-Chief contracts is a sort of basic commitment from them around, "You will deliver x number of articles to be published in a given year". And the reason for that is the society in turn has made a similar commitment to our publisher because our publisher has a contract with us publishing our journals. But our publisher has to say to us, "Well, we can only do this if you give us things to publish". So coming from the contract with our publisher, we have a minimum level of, I guess, output that we expect from our editors.*
>
> (Journals manager, SBM)

The journal is conscious of its own reputation and prestige within the field, which is talked about both qualitatively, in terms of its history and location, and quantitatively, through the impact factor: a scientometric index calculated by Web of Science (part of the Clarivate data analytics group). Reputation and growth are governed by internal metrics, such as number of submissions and speed of peer review and production turnaround, coupled with external usage data, such as downloads and citations; these then inform key performance objectives for publishing and editorial staff.

Scientists

A defining feature of scientific publishing in the creation phase is a much more codified, and less humanistic, concept of the "author" than is common-sense in trade publishing. JBM articles are rarely produced by single scientists but, rather, teams of researchers based in university (and/or commercial medical research) labs. The journal subscribes to the Committee on Publication Ethics (COPE) guidelines, through which the category of "authorship" is precisely controlled and subdivided for accreditation purposes. In addition to ideation, analysis and writing, for instance, the CRediT model of authorship includes tasks such as funding acquisition, project administration, and software management as viable contributions.[14] Equally, what counts as a "published output" is also in flux: it may include datasets, for instance; by contrast, an article may not "count" as such if it does not meet the specific "quality" requirements set by funders or institutions. Nonetheless, it is striking that the form of publication has changed very little, given broader digitisation:

[14] The Contributor Roles Taxonomy (CrediT) identifies fourteen possible contributions in total: Conceptualization; Data curation; Formal Analysis; Funding acquisition; Investigation; Methodology; Project administration; Resources; Software; Supervision; Validation; Visualization; Writing – original draft; Writing – review & editing.

The one bit that hasn't changed is the unit of currency, which is a scientific paper. Still looks almost identical to 1783. Title, author, location, introduction, method, theory, abstract, keywords, references, you know. Written in the passive case. It's very interesting. … I mean, why? Why do scientists want to write it all down as opposed to [a webpage or video] saying, "look, here's the lab, here's the test tubes we did and this is what we were trying to prove..."

(Former executive, Major Publisher)

Research support and administration

Universities invest in research infrastructure to incentivise, support and increase success in competing for funded research and reduce administrative costs. This is one major differentiating factor between resource-rich "research intensive" institutions and those with less access to resources. Research professionals are involved in pre-award and post-award administration. Pre-award, they help write, evaluate and submit a funding bid; post-award, they manage funding, and carry out institutional monitoring and award compliance. In the latter, this may include ensuring that a funder's Open Access requirements are met, as well as monitoring publications for the Research Excellence Framework (REF):

[University] runs an annual research quality monitoring process and as part of that process, people have to nominate their four best papers within a certain period. And these papers that are sort of nominated, put forward, are then rated, you know, within the disciplines. … And what the panel does is they would rate the quality of the publications actually following REF guidance, you know, the Research Excellence Framework guidance. And that, of course, these ratings, they have got further impact as well. Originally, obviously, the main idea for doing this is in preparation for REF, to know how many papers there are around that might be used. But it has come to be used at [University] also as part of promotion criteria. … So I get involved in preparing the guidance, advising individual panel members, collating the results, analyzing the results.

(Head of Research Support Services)

Research administrators, then, enact national and institutional frameworks through which publications become a key currency in a market for academic career advancement, even if they do not (again, unlike trade publishing) directly provide a royalty to authors.

Numbers of such support professionals have grown and in the UK are represented by the Association of Research Managers and Administrators (ARMA), which creates a community of practice, drives professionalisation through training, and interacts with national-level research funding and policy debates. The Head of Research Support Services held a PhD in Chemical Engineering, having moved into an administrative role after a postdoc, and observed that "it has become more and more the case that you that you would get people into that profession who have got a PhD background like myself".

Partly, the interviewee suggested, this results from an oversupply of doctoral graduates and partly increasing professional expectations in recruitment. Indeed, being acquainted with the research process "actually becomes quite handy talking to academic staff and talking to researchers, especially when you do pre-award support, when it is about writing the application". While support staff do not actually undertake or publish research, then, it may still be possible to describe them as "writers" or, possibly, "translators" (translating the genre of the discipline into the administrative language of funding, "impact" and "engagement").

Funders

Articles published in the journal are supported by a number of funding agencies, foundations and charitable bodies, such as (in the UK), UK Research & Innovation/Medical Research Counci, the National Institute for Health Research, the Wellcome Trust, the Royal Society, or Derek Willoughby Foundation. Funders do not only pay for the research but also set specific conditions affecting publication, for example regarding Open Access requirements or, increasingly, "research culture" issues such as equality, diversity and inclusion. The Project Officer for one such agency works "across the research ecosystem" to increase "openness", from creation to publication to exchange and archiving:

> *Our goal is that all of our research outputs are freely available to all. And so we need our researchers to make them open, but in order for them to do that, there needs to be places where they can store data. There needs to be standards that enable them to store it in a way that means other people can use it and know what it means. There needs to be places where they can share, communicate their research outputs in a way that is stored and accessible as broadly as possible. So my work really is to create an environment in which openness can take place, or scientific openness can take place.*
>
> (Project officer, funding body)

Production

Publisher

For Global, Society of British Medicine journals are desirable assets, both high-revenue and high-prestige: they receive a share of income directly and, more indirectly, the JBM brand increases the value of their portfolio of medical journals as a whole. Journal portfolios sit within subject areas which also act as organisational divisions, while individual journals make use of different elements of the publisher's services – although Global seek to harmonise these as much as possible. SBM journals operate an internal article transfer system wherein (high-quality) submissions that are rejected (as commonly happens) are re-routed to another journal in Global's portfolio. Frequently, this is SBM's third journal, of which Global are one-third owners (and so receive higher share of income), and is "growing in submissions and growing in reputation as time goes on" (Journals Manager, SBM). In this sense, JBM acts as a beacon attracting submissions and subscriptions to the Publisher's wider

portfolio. In return, Global acts as powerful representative in negotiations and offers technical and craft support in typesetting and workflow management. According to Global's Production Manager:

> *I guess what big commercial publishers can provide is an established and large infrastructure that they wouldn't have access to or that would be too expensive to maintain. So in terms of the access to just the negotiation ability that [Global] has, as a large publisher, when signing library agreements, both subscription agreements and more recently, all of the transitional agreements. Obviously, the power of negotiation comes with having a large portfolio of journals that we're publishing. So the distribution and sales side, I would say is one of the largest things, because some of our societies actually still maintain in-house editorial offices. … And also the production, so the typesetting side, is often taken up by [Global] as the publisher, so providing that infrastructure that they wouldn't necessarily have access to otherwise.*
>
> (Production manager, major publisher 2)

The JBM journal is supported by integrated systems, and an attendant workforce, that are largely organised, if not wholly owned, by Global. A crucial component here is a submissions management system (through which all editors and peer reviewers are coordinated, managed and overseen by editorial and production staff at Global), which is owned by a separate data analytics company.

Publishing services

As suggested above, Global have established partnerships with specialist suppliers in the form of so-called "publishing services" companies: manuscript quality checking, including all figures and images, are handled by a content management service, a subsidiary of a BPO firm headquartered in Mumbai; production of the final article, compiling, linking and paginating using the appropriate technical format for online delivery (HTML/XML/LaTeX), is managed through a partnership with a different BPO firm, based in Manila and Chennai, who supply a proprietary proofing system through which article authors can interact.

According to the publishing veteran we interviewed, historically:

> *Indian typesetters had very cheap, very bright labour … a very high population of very smart, university educated people which is, particularly on academic publishing, it's not easy to interpret those [complex diagrams and formulae] from a manuscript and turn it into a typeset thing … the typesetting's a really important part of the business because it's where you're capturing the intellectual property for future use – so that's a big deal.*
>
> (Former executive, major publisher)

High quality rendering of images, graphs and equations is intricate work and, this interviewee suggested, the appearance of the final page proof, and a well-supported academic service, is crucial

for a prestigious journal. A different Journal Manager also highlighted this, where copy-editing had more recently moved from in-house to an outsourced Indian business-process firm, with negative impact on what was referred to as “production values”:

> *There have been problems that weren't foreseen … with the quality, and the maths in particular, and how that is reproduced. … [my predecessor was known for] attention to detail and got everything absolutely right. So where it wasn't right, he would mark it up and correct it. That hasn't been available in the same way. So there's that. The other part of it is, they're using some slightly different software, I think. Not entirely sure about what tools they're using but there's been an element there where there's been less human input, more software programs … I think an element of the quality assurance has been, what's the word? It was concentrated and … [then] it was dispersed, if you like.*
>
> (Journals manager, social sciences journal)

In practical terms, these “production values” and “quality assurance” issues manifest as complaints from authors and so form important points of negotiation when the journal renews with the publisher.

Exchange

There are three key audiences for papers in the Journal of British Medicines: academic, public and commercial. Once a JBM article is typeset into a publishable form, suitable for web-based browsing – known as the ‘version of record’ – it (as well as any available primary datasets) can be stored and published immediately using the Global STM publisher’s own in-house publishing platform. Historically, readers would gain access to JBM articles through their institutional libraries, where the latter pay a subscription to one of the publisher’s curated packages of related journals (known since the 1990s as the ‘big deal’). These subscriptions, negotiated by Global STM’s sales team, continue to be a primary means of accessing the expanding archive of academic research for most scientists, and a primary income stream for the journal. Global and JBM also support Open Access publishing, in which authors (and their funders or institutions) are responsible for ‘article processing charges’, to ensure public availability. JBM have experimented with publicly hosting pre-print versions of articles still under review, to accelerate the process between submission and availability of research – and, again, keeping pre-prints within the Global STM ecosystem, disincentivising their appearance on competitor repositories. Articles are also indexed by analytics services such as the aforementioned Web of Science, or Google Scholar, which are an important means of discovery for scientists. There is a specific focus on translating and communicating content for Chinese audiences and platforms. While the standard publication language is English, the journal also translates all abstracts and press releases into Mandarin, using an in-house team in China, reflecting the growing significance of scientific communities in this part of the world.

For findings that are deemed to have public interest, Global can also deploy in-house PR and marketing expertise (traditional corporate communications or a social media promotion strategy), who would

become involved relatively quickly after submission. A third site of exchange emerges in the use of content and metadata for supplementary services, such as medical diagnosis and business decision tools, many owned by a separate Global subdivision. While such synergies are highlighted in corporate reporting (and in the literature), interviewees were generally unable (or perhaps reticent) to speak to these themes. Content and user data (searches, reads, downloads, references etc) are analysed for the purpose of informing scientometrics, especially indexing and analytics services, in part for the construction of global rankings for competing on 'quality', such as Clarivate's Journal Impact Factor.

Distribution

Because JBM is online only, there is no longer a need for printing presses (previously this would have been managed by the US partner society, likely in New Hampshire), so that distribution is not a matter of moving physical publications but rather creating fixity in digital space. Metadata and identifiers must accord to international technical standards, since they are crucial devices for describing, discovering, indexing and linking digital content. All print and online journals are attributed an International Standard Serial Number (ISSN), while the Digital Object Identifier (DOI) is the standard for journal articles and other content (such as research data), which may be allocated only by approved registration agencies, such as the EU Publications Office or CrossRef. The latter, a citation system that is funded by annual membership subscriptions from publishers, is an increasingly important central system for directly linking and tracking articles, aiming to accelerate engagement:

> *The idea that you can see the list of references and you can click on it and go to the original paper, I mean, it's so obvious and yet so hard to do. You've got to get all the publishers to agree a link and it was done without any subsidy. It was funded by six major publishers … a substantial chunk of risk capital and then it paid for itself and it's repaid loads and it's now just taken for granted. And no one really thinks about it. But it's unbelievably important.*
>
> (Former executive, major publisher)

Such services incur enormous data storage requirements, simply to link metadata, that are both costly and bring in further integration with established global firms:

> *We're just moving now from a data centre in the US to Amazon Web Services cloud hosting, and that is very gradual, mainly because we're watching the costs and that's going to be our biggest cost in the future, definitely. As the more records we get, the more users we get, the more processing power we need and the more, yeah, just the more data storage we need. So at the moment, it's something like $30000 a month, and we've just started.*
>
> (Director of community outreach, citation network organisation)

Archiving

Articles are compiled into presentable regular 'issues', which then make up annual 'volumes' – a legacy of print publishing – and digitised versions of historic volumes are available through the publisher's website. As the model of funding moves towards Open Access, it is often libraries and institutional repositories that take on the task of negotiating transformative agreements with publishers (either directly or through a national joint negotiation committee). The requirements of funders (and, in the UK, the REF) typically dictate that, where an article's version of record is not publicly accessible, a pre-publication proof (and associated dataset) must be stored in the institutional repository of the academic lab. Research administrators and library staff hence have a liaison role here, advising how to negotiate compliance with funders' terms and publishers' rights retention periods.

A common pattern is for several key actors in the GPN – author, funder, university repository, society, publisher, third party intermediaries – to be involved in archiving (different versions of) a particular research output. The priorities of that actor then shape how publications are organised e.g. curating publications according to the funding grant, author or journal to which they are attached. As with distribution, a key issue is establishing a durable fixity for research works, as explained by a repository leader:

> *Publishers sell content across their platforms all the time. They sell each other titles that they don't think are doing well or they'll swap the rights, they'll swap the intellectual property and so on across their platforms. They can also collapse. They could also, you know, be absorbed into other things. … Every now and again a publisher would put something up as free access, so it wouldn't be under an Open Access license but they just decided: let's make this one free, we will get a bit of publicity out of it. And so any point they can withdraw that and put it back behind the paywall. … It's definitely worth us trying to preserve our research outputs as they stand with us within the repository, from that, rather than just relying on the fact that it's there in the commercial sector.*
>
> (Repository and research information leader, university)

Nonetheless, the 'archive' of the JBM is therefore also distributed across multiple, differently ordered, instances. Third party organisations such as PubMed, and European PubMed Central (an Open Access repository and database of biomedical research works, led by the Wellcome Trust), do some linking work here.

3.3.2 Relationships between actors

Governance of the network

The network associated with JBM is characterised, in the first instance, by a specific relationship between two institutions: the society (SBM) and the publisher (Global STM). Their general operating conditions are influenced, at a secondary level, by a generic set of relationships between these institutions, universities and funders (including national and European research funding councils), and by implication the respective government bodies. Within these latter dynamics, the decision-making power of the author is relatively restricted. While guarded in principle by the concept of 'academic freedom', and free to choose *what* to publish (albeit within the long-established standardised form of the journal article), the ability to decide *where*, *when* and *how* to publish is dictated by issues such as government research quality auditing, Open Access stipulations and availability of funds to support the latter. It is this, perhaps, that lies behind the veteran publishing executive's claim that it is funding agencies who ultimately "call the shots" in this ecosystem:

> *"OK, guys, we're going to tell you where to publish and how to publish". And that's becoming more true everywhere … mandating - not quite mandating, but getting close to mandating how individual scientists publish.*
>
> (Former executive, major publisher)

This interviewee is referring to open-access policy initiatives, largely driven by funding requirements and enacted through compliance monitoring, underpinned by the delivery or withholding of payment. The funding project officer referred to "a set of requirements that were standards that publishers needed to meet before we would pay them an article-processing charge":

> *That was driven by issues that our authors had in terms of complying with our policy because there would be publishers where they would pay for the article to be open access, but the article wouldn't be made open access, or it wouldn't be deposited in the repository, for example. There have been times where we have tried to drive changes in metadata standards, through compliance and policy processes.*
>
> (Project officer, funding body)

There is, then, a core tension between funders and publishers in this transformation. Moreover, there are implications for individual authors, including their geographical spread. For instance, a funder might mandate Open Access publication in particular approved journals; otherwise, the individual (and their institution) are expected to cover the article processing charges – a resource issue that is not equally available throughout the world. This is the case for the "hybrid" Journal of British Medicines, for example:

> *We had a recent example of someone who was based in, I think, South Africa and who was funded by [X funding body … who] doesn't provide funds to publish Open Access if you're in a hybrid journal, but requires that you do so. So it basically tries to push its authors into fully Open Access journals. And so this was an author who had this really great bit of research.*

We really want to publish it. We're really trying to publish more research on [Y topic] from Africa, particularly on … neglected populations. But because it's funded by [X funding body], we couldn't. So that was an example of an author where, unless we move to fully Open Access, we couldn't accommodate that person. But we have to – it's a sort of utilitarian type thing – you have to accommodate the maximum amount of sort of compatibility, even if you have some people at either end who miss out.

(Journals manager, SBM)

Although ostensibly justified through the needs of 'authors', or a wider 'research community', the example shows how this cross-network compliance tension over flows of payment between two major bodies, justified on "utilitarian" principles, can lead to individual journals and researchers falling in the cracks.

As well as the overt forms of control through payment, more implicit forms of cross-network governance are driven through infrastructure initiatives – technical systems and standards – in which, again, funders play a leading role. Our interviewee described an international collaborative project to build a "data site, a range of repositories, preprint servers, internationally, to support the flow of information between the different infrastructure services, to develop new standards and best practice with new research types" (Project Officer, Funding Body) – whether that be research datasets or multiple and evolving versions of record. In such cases, the funder will seek to both respond to (bottom-up) and lead on (top-down) changes within the scientific community and broader publishing ecosystem, through the use e.g. of metadata standards.

Preprints were very scientific-research led. And so we have looked to ensure that our systems accommodate that development. And by making sure that our policies basically enable researchers to do what they need to do to communicate research. So that was kind of a responsive involvement there. And we have looked to kind of support grassroots community projects – an organization called [X], which is looking to promote the use and uptake of best practice in preprints in the life sciences. So sometimes we're proactive in developing, or solving our problems; at other times we are trying to respond to community needs and to support existing practice.

(Project officer, funding body)

Equally, however, publishers also hold significant influence over the network as a whole. One example of such an innovation for the JBM again concerned pre-prints – the availability of early versions of papers that are still undergoing peer review and have yet to be accepted – a service that was still in experimental 'beta' stage at the time of interview.

So [Global STM] a couple of years ago, I think, acquired something called [X Platform]. I don't know if it was if it was initially intended to be a preprint platform or whether it was more a

sort of collaborative authorship thing but [Global] are quite keen to push it as a preprint platform. Partly just because all publishers are trying to monopolize the workflow that researchers have. And so when you submit your article to [Journal of British Medicines] for the first time, you're asked – as part of all the hundreds of thousands of questions that you're asked when you submit – "Do you want us to deposit this into [X Platform] for you?" And they can tick that, at which point, as their manuscript goes through [Workflow System], it will also be deposited as a preprint in [X Platform], and it will appear in a little section called "[JBM] manuscripts under review" or something like that.

(Production manager, major publisher 2)

This acquisition of a third-party service is an example of illustrates the competition among publishers, as this interviewee put it "to monopolize the workflow" of research. Acknowledging the increasing currency of pre-print drafts as a means through which authors disseminate early ideas and receive comments, they would rather these documents remain within their internal ecosystem, rather than being deposited with another online service (such as medRxiv). As they do so, they retain or extend a presence over multiple phases of the production system: here, the nexus of creation-exchange-archiving. With their capacities to exert power over every phase of the production cycle, we therefore consider both publishers and funders to hold a dual 'lead firm' position for our case.

The Journal of British Medicines must effectively navigate these relationships in order to operate effectively. In particular, they do so in contractual negotiations with the Global STM publisher. According to the interviewee at the other major publisher, typical points of negotiation include: ownership and term of the contract; structure, cost and appointments of the editorial team; access to publisher services and systems, as well as technical support and training services; and finally the financial model of the journal. This relationship is a time-bound (typically 5-7 year) exclusive agreement to publish authors' works that are submitted to the journal and, in the case of JBM, owned by the society (under a subscription model), or under a CC-BY license (if Open Access). This relationship is characterised by values of disciplinary prestige and scientific rigour on one side and market power and high standards of technical efficiency on the other, over which there can be several points of negotiation. The journal manager considered the journal's value to derive from accumulated historical prestige, through its capacity to assemble a community around the discipline – a function that commercial publishers find hard to replicate. This could be a source of some tension between community development and service provision:

Some societies are selling their journals. I've heard of a couple of examples recently. And you can see why because you can just cash in on an asset that's possibly reducing in value. So you may as well cash it in now and use that money to do other things. But I think it's a real shame because I think it takes journals away from their purpose of fostering communities and more to their purpose of just, well, pumping out articles, becoming a sort of a service. … It just becomes no different from buying furniture or something. You just buy a paper that gets

published. I don't think it builds communities, and I think that takes journals away from their real aim.

(Journals manager, SBM)

The idea that financial value is predicated on position with the field was shared by the production manager at Global STM:

I would say, in general, society journals are more lucrative than proprietary journals because of the reputation attached to them. … they're very established, very recognized by the research community and by the society memberships as well. And so in general, I think the reputation and brand of the society makes them more lucrative than owned and proprietary journals. And obviously, [Global] is interested in publishing, you know, high profile journals that can not only feed into the networks that we have, but that can obviously help gain market share and so on. Because of their size and importance within the research community.

(Production manager, major publisher 2)

In this sense, JBM is both a significant source of income in its own right and brings so-called 'horizontal' and 'vertical' complementarities: a "big name" helps to sell subscriptions to journal bundles to libraries; a high rejection rate can be used to transfer 'high quality' article submissions to lower-ranked journals within the portfolio:

I think first of all, [BSM journals] are leading journals in their field. They're also relatively high revenue journals. And so obviously [Global STM] being a commercial publisher, they get a share of that income. So that in itself is appealing. I also think that there are secondary benefits … Global have a portfolio of [medical] journals that extends beyond ours, so there are benefits to them to kind of have those sort of big name titles in a portfolio that they can then, you know, if they're promoting their other medical journals, they can talk about their medical portfolio as a whole. I also think there's a benefit to them, and a benefit that applies to all commercial publishers these days, where many publishers, including Global on our journals, set up these cascade arrangements, whereby if authors submit to one journal, if they're rejected from that journal, the authors are recommended to move that to another journal that might also be appropriate. … So there's a benefit to them to have these sort of higher prestige, higher impact factor, higher ranking journals here to kind of help, as just another way of putting submissions into a journal that they then own [outright].

(Journals manager, SBM

In its turn, the publisher is attractive in terms of its capacity to exert negotiating power at scale – derived from its ownership of large portfolios of journals, its technical standards and global

infrastructure for handling submissions quickly – and thus accrue a larger “pot of money”, as well as what was termed “cultural fit” with the publisher: its staff’s familiarity with the operations of scholarly societies (that is, the capacity to foster productive working relationships); and the services it offers (such as market data, partnership on events, and so on).

Each of these provides points of negotiation for improving the terms of the contract or increasing revenues. The publisher is responsible for overall financial management, collecting income from subscriptions or publishing fees, allocating it according to the journal’s performance, and accounting to the society on that basis, which has “two elements”:

> *The extent to which the overall pot of money that [Global STM] are making could increase or decrease is generally down to [Global] and the success of their sales team. And because that's kind of distributed across the globe, it's generally just dependent on the kind of market factors. And market factors at the moment are moving away from libraries purchasing these big deals to these transformative agreements, where library spend is moving from subscribing and reading journals to publishing in journals under Open Access. But of course, because [Global] receive this money as a whole and they then allocate that money within their portfolio, I guess we, as a journal within that, kind of have the internal market within [Global]. And so we're always sort of trying to push the factors behind that allocation in our favour. So, for instance, we know that one of the factors that [Global] take into account for how much money they would allocate to us is how many downloads we receive. So it's always in our interest to increase our downloads.*
>
> (Journals manager, SBM)

While the JBM is incentivised to monitor and increase metrics such as reads and downloads in this way, so too do they monitor the publisher’s performance on “service standards” – although this is closer to a fault-finding role, in which the society have reduced capacity to intervene.

> *Part of our contract with them is a service-level agreement around production, turnaround times, system downtime, that sort of thing. It often will come up. A common thing or a normal thing to discuss is, our editors might say, "Oh, we're having this problem with the system" or, " we don't think this bit on the Journal's website is kind of working or helping", something like that. And we'll have an open and useful conversation with our publishers about that. Our capacity, as in the society's capacity to kind of make changes to any of these things is, I guess, constrained by [Global’s] preferences. I mean, part of our agreement with Global to publish our journals is that it's kind of for them to choose which typesetter we use, for instance, that's primarily [Global’s] choice. The contract allows for us to be consulted on those things and for us to make reasonable requests for changes and stuff like that. But fundamentally, I think just from an operational perspective, [Global] can't really be constrained by having to run*

every single supplier and system by us, particularly when some of them we don't even see anyway.

(Journals manager, SBM)

This last point – that Global's suppliers further down the chain remain relatively invisible – is indicative of the highly differentiated and distributed division of labour that is organised by a transnational lead firm and sometimes a cause of some tension (see above – Production: Publishing Services). While the publisher had previously separated proprietary owned journals from a division that offered "services" to society journals, a restructure had removed this division, instead prioritising thematic disciplinary areas – an indication of the significance of the disciplinary genre as a marketing and organisational function. This and further outsourcing of imaging and typesetting functions have come into conflict with its efforts to personalise external relationships, especially with societies:

Managing staff changes has been another challenge, and I do have to say I think managing the move to the vendors has also been one thing that we had to manage in the last couple of years. … High turnaround of staff working on the journals … obviously had an impact on continuity … Some of it is driven by, as I said, outsourcing. So moving to vendors but also internal restructuring … Ensuring that the new people working on the journals actually know the specific like workflows for each journal. And that's why we we've also tried to optimize and simplify processes because there's a lot of idiosyncrasies across the board [between journals], and that obviously makes it harder for us to be to be handed over smoothly if you have to learn a whole set of instructions for each journal.

(Production manager, major publisher 2)

There is, then, a logic of standardising and harmonising internal processes, to iron out idiosyncrasies, and to expand the scope of the publisher's palette of services. To some extent this supports the SBM's significance and prestige in a global research community, while also introducing tensions with the community building function:

I do think that fundamentally something went a little bit wrong when publishing became sort of co-opted, as a commercial enterprise as opposed to being a kind of scholar-owned and scholar-led exercise. I think the reason for that is that I think that, um, fundamentally, what journals do is they bring together and then advance communities. And I don't think, I think just fundamentally a commercially-owned journal, in the end, can't really do that and doesn't do that in the same way. I think it sort of, if I was to frame it really cynically, I think it sort of pretends to do that. I think it sort of delivers on the – it kind of produces some of the appearance of that without actually the reality underneath.

(Journals manager, SBM)

Socio-cultural embeddedness

The structural importance of building distinctive "epistemic cultures" (Knorr-Cetina 1999) is clear, then: for the production and validation of scientific findings; for the valuation and strategic positioning of the journal; and in organisational divisions. We can consider the 'discipline' to belong to the same family of concepts as notions of 'genre', 'scene' or 'tradition', with similar boundary-policing effects, instituted in the educational and professional training leading up to the PhD. It is accordingly extraordinarily difficult for an established author to publish in an unfamiliar discipline, for instance, without first versing themselves in the vocabularies, presentational norms and citation practices of the latter's journals (quite apart from any particular findings), as judged by editors and peer reviewers. Equally, the typesetting and processing speeds offered by the publisher seek to bestow a global professional standard on this community's written outputs, beyond an amateur artisanal enterprise. Nonetheless, in the Journal Manager's opinion, there is no *necessary* connection between a learned society, conceived simply as a community of interest, and the scientific publishing industry:

> *Learned societies will always survive just in the sense that academics will always get together with other academics – or other scholars, or however you define that – interested people will always get together and there's always a benefit for them to kind of pool their efforts and resources and time to then further the thing that they care about and to support the next generation of people.*
>
> (Journals manager, SBM)

There is a sense here of scientific research being a passion-driven pursuit among like-minded peers. Yet, clearly, JBM articles are not primarily read for pleasure and interest on their own terms, unlike trade literature (and to some extent humanities and social sciences). Rather, they serve a public interest, participation in which is driven by credit and professional advancement. Researchers must balance these personal, public and professional incentives to produce publications.

The university is therefore a crucial site in which authors are trained, employed, and provide access; perhaps we can therefore speak of a form of strategic coupling between STM publishing and academia. An interesting recent dynamic here is the capacity for funders to intervene in "research culture" – especially employment and support for training – through funding requirements.

> *We're now looking to kind of change, and I think perhaps enhance, the monitoring that we do – around how researchers are doing the science and how they are looking after their team members and developing them: what is the research culture, within which the research is being conducted? And the roles of researchers within that. … We now explicitly ask researchers to talk about the environment in which they're working and how they will support and develop their team members … You know, what is the environment that they are going*

to be working in? How are you going to make sure that they're going to have a good environment within which they work? … And that stems from work that was begun over a couple of years ago now on research culture. We did a big survey on a lot of researchers globally, about what they felt the research culture was like where they were working and how they felt that it could be improved. And so we are trying to change our practices to respond to the learnings from that study.

(Project officer, funding body)

The production side of publishing is also highly educated. There are two typical educational backgrounds, typified either by a traditional 'publishing' education (similar to trade publishing) or alternatively by practicing scientists making a horizontal move:

I think people who work in my field, in scientific publishing kind of come from two routes. They either come from a route like mine, which I would describe as a publishing background in kind of a classic humanities degree and then some sort of [accredited publishing] training beyond that. Or they are people who've come up through science, they're people who've kind of done Masters or PhDs in their subject and then have gone into scientific publishing that way. So I'd say for my field, my background is quite common, but it's probably about a 50:50 split between those two things.

(Journals manager, SBM)

The veteran interviewed described a historically "white, middle class, university-educated, driven" workforce that had "changed a bit … not altogether, but a bit", especially in terms of gender balance. This respondent expressed a view of publishing firms coming under pressure from a managerialism associated with the business school.

So specifically the biggest change that's happened, I would say, is that – OK, look, if I can crudely, very crudely say: there were people whose jobs were to build the businesses and there were people whose jobs were to effect that building. I fell into the "building the businesses" group. Typically that group were university-educated, privileged, in the current parlance, and … were given responsibility and were trusted. Whereas the others were given instructions, if you like. And those people like me, up to a large extent, disappeared. Except at the very top. … I think, there are fewer all-rounders. I'm a living dinosaur of an all-rounder.

(Former executive, major publisher)

This interviewee described an increasing professional specialisation, which had made publishing "much more efficient as an industry than we ever were", but expressed concern that departmental "silos" and bureaucratic decision-making stifled the capacity of former publishing elites to provide a

guiding vision. One aspect that emerged in this account is the embeddedness of British publishers in a post- or decolonialising Commonwealth context where, for example, educational routes and professional (postgraduate or MBA) qualifications displaced an earlier model:

> *The training process for future senior management was that someone will go and be sent to run the Kenyan office. Now, in that process, you know, often quite recently out of university, they'd be managing a team and they'd have to do the whole caboodle. Or fall.*
>
> (Former executive, major publisher)

Clearly this historical context is also tied to the importance of the English language as scientific *lingua franca*, as well as the kind of cognitive frames that shape higher-level decision making and lobbying. This same individual argued in purely economic terms that the UK market is "too small and we're uncompetitive if we don't think globally" – as a consequence:

> *Nearly all British publishers have generated international networks. … more recently by sales of English language teaching materials. And interestingly, that changed the focus, so originally this international network was white Commonwealth and then it became black Commonwealth. They even had branches one and branches two: branches one were white and branches two were black, just on the computer.*
>
> (Former executive, major publisher)

Although only a single interviewee, this respondent's references to a general class of older ('dinosaur … all-rounder') executives attests to the historical constitution of certain publishing firms built on a form of elite British 'gentlemanly capitalism'. The reference to distinct markets in developed and developing nations in terms of a de facto 'colour-line' coded into a computer system suggests how cognitive frames become technical protocols and modes of governance underpinning the structure of the firm. This post-colonial network advantage has more recently come under threat:

> *But now, well, I think something else has come into play, which is, we are now not international, we are global. We were international, it was a multinational. … [for STM publishers] the bulk of your authors and thus your profit and everything else comes from China. China now publishes more physics than the United States in English. So, you know, this is a huge change really.*
>
> (Former executive, major publisher)

Nonetheless, he considered the UK's concentration of higher education institutions, its labour market conditions and of course the English language as markers of "the best people" – constituting a powerful force for continuing to locate a publisher there:

The UK is a fantastic place from which to publish. You've got a workforce that you can grow and ungrow quite easily, unlike [elsewhere] where when you hire someone, you hire them for life effectively. … in the UK, we're pretty liberal in our sacking and things. You've got a good educational system, good higher educational system. Lousy at languages – but actually it doesn't matter if actually what you're doing is English and your market is English and your authorial thing is English, then to hell with German. … I mean, if I was setting up an academic publisher, I would definitely start it here. And that's not patriotism or anything like that, it's just where you can get the best people.

(Former executive, major publisher)

3.3.3 Positioning the case within the typology matrix

The journal, alongside its contents (and associated rights), is currently owned by a scholarly society, with a long history, who have some decision-making influence over the general direction of published content and editorial policy (although editorial decisions themselves are undertaken solely by the editorial board). This arrangement is not a necessary one, however, and it is possible that the journal could be bought and maintained wholly by the publisher. On the other hand, it could not exist without research findings or without a means of publication and distribution. The institutional concentration and territorial distribution of power for the particular network we have traced for this case study is schematised in Table 13.

Table 13. STM Publishing – Network actors and governance structure per production phase

<table>
<tr><th></th><th>Local/regional</th><th>National</th><th>Intra-EU</th><th>Global</th><th>GOVERNANCE</th></tr>
<tr><td>Creation</td><td colspan="2">Creators
Strategic partners – public sector/civil society</td><td></td><td>Specialised suppliers</td><td></td></tr>
<tr><td>Production</td><td colspan="2">Specialised suppliers</td><td></td><td>Lead Actor 1
Specialised suppliers</td><td></td></tr>
<tr><td>Distribution</td><td></td><td></td><td></td><td rowspan="3">Lead Actor 1
Distributors
Specialised suppliers</td><td></td></tr>
<tr><td>Exchange</td><td colspan="3">Lead Actor 2
Strategic partners/civil society
Customers
Consumers</td><td></td></tr>
<tr><td>Archiving</td><td colspan="2">Specialised suppliers</td><td></td><td></td></tr>
<tr><td>Network-level</td><td></td><td></td><td></td><td></td><td>Multiple actors</td></tr>
</table>

As Table 13 shows, each phase of the production cycle is dominated by particular actors, operating at different territorial scales. The Creation phase concerns the assembling of written research content, in which the Journal (and Scholarly Society) is focal point: findings are written up in line with the house style and formatting requirements, submitted and quality checked through editorial and peer review. The journal itself is located in London, embedded in a national disciplinary community from which its name derives; however, it is a global brand, attracting authors, editors, reviewers and readers at that level. The Production phase, concerning the coordination of these processes, plus typesetting, layout and eventual online publication, is clearly dominated by the transnational publisher (Global STM). The latter bring together the submitting author with in-house and third-party publishing services, the offices of which are strategically located in specific localities, based on proximity to an educated workforce for reasons of efficiency, quality control and (in the case of the typesetter) cost. Distribution concerns the circulation and tracking of articles to third party sites globally which, given the online nature of the journal, occurs predominantly through the attribution of standard identifiers, metadata and logging in citation indexing services. This too is initiated and underpinned by the publisher. Exchange (i.e. transactions that lead to readership and usage of research content) takes place in a number of ways, with libraries spread across the globe as primary consumers, negotiating subscriptions usually through national consortia. However the drive towards Open Access is led by funders, commonly embedded in national contexts, but who may work in regional consortia (such as at EU scale). Finally, archiving is again distributed across multiple services, including (localised) university repositories, and (internationally) the publisher's data servers and pre-print servers run by non-profits.

The production cycle as a whole is driven by the transnational publisher, acting as lead firm, under significant influence from funders (and associated governance regimes), at the nation-state (and EU) level. In particular, the publisher seeks acquisitions and innovations that enable it to intervene in, and ideally control, as much of the full STM publishing cycle as possible; funders exert influence through funding policies enacted through the flow of payments, compliance monitoring and the governance of technical systems. Although particular phases are embedded in places (and perhaps more so than may be commonly acknowledged), the network as a whole is global in scale.

3.3.4 Dynamics: changes over time

The primary transformations experienced by the journal are associated with the Open Access agenda, as well as innovations in how articles are disseminated and communicated, driven mainly by the publisher's acquisitions and its contractual relationships with suppliers.

Although Open Access is driven largely by funders (especially through the COAlition S group) and not publishers, in the view of the Journals Manager, because it involves a radical change to a journal's business model, such changes favour the large commercial publishers rather than smaller publishers and scholarly societies.

> *I think a lot of shifts with Open Access are just going to consolidate – they're helping commercial publishers more than they're helping us because they can only really be weathered by organizations that have the economies of scale.*
>
> (Journals manager, SBM)

There is a sense in which Scientific, Technical and Medical publishers (as lead firms) are engaged in *dis*-embedding scholarly knowledge from its institutional (university) history, while *re*-embedding it in the far more informationalised GPN world of the digital platform economy, founded on the creation, capture and analytics of data and metadata, at a global scale. It is important to note that this disembedding is not exclusively driven by Lead Firms, however. We might also consider the "open science" movement, and the drive to self-publish draft papers on pre-print servers for community review, including movements towards more "transparent" peer review, as well as new journals hosted by universities and not-for profit organisations (see e.g. PLOS). These latter initiatives are, in some sense, more "internal" to scientific research conceived according to the (communal, universal, disinterested, sceptical etc) norms of scientific practice.

The response of a lead firm is to develop technological "solutions" that both facilitate and quantify research and communication practices throughout all phases, rather than simply mediating the production and consumption of knowledge. In so doing, they are in the business of generating new trails of (meta)data that hold value in both research and economic terms. Hence, the publishing activities of lead firms increasingly underpin the creation, production, distribution, exchange and archiving of academic knowledge; but their particular "value-add" comes from the translation of that knowledge into abstract information that can be sold for commercial purposes. For researchers, they accelerate search, sharing and storage functions, alongside meta-analyses; equally, they enable greater capacity to monitor and competitively rank scientific activities, for the purposes of directing funding or informing strategic business decision-making. This, in turn, reshapes incentive structures and drives further embedding of digital logistics firms and tools in the process of scientific research itself – all of which, however, remains rather invisible. The increasing acceptance and institutionalisation of a "democratic" vision of "open science" has led corporate actors to develop their own complementary "open" initiatives, building on their internal platform ecosystem.

The disembedding tendency is thus driven by different conceptions of the *value* of STM publishing: on the one hand, upholding "internal" principles of research quality, scientific rigour and replicability; on the other hand, the commercial capacity to inform business decisions, competitiveness or strategic capacity building. We might therefore talk of this movement as a dual-pronged push (cf. Mirowski 2018) towards re-embedding STM publishing in a more platform-based conception of the GPN.

3.3.5 Impact

Economic impact

Scientific research and innovation is recognised to be a core contributor to economic development for the UK and EU (in GVA/GDP terms); universities, laboratories and science parks are embedded in local clusters and regional/national innovation systems. There are some obvious overlaps between these distinct activities and publishing *per se*, evidencing a strong sense of strategic coupling between industries. Isolating the specific impacts of publishing (as opposed to commercial R&D, registered patents, or the broader set of university functions), however, is much more difficult and not easily captured by existing statistics. Here we make some observations on these lines.

Publishing itself is a relatively focused activity. The society is small, with only two members of staff dedicated to publishing; and a similarly focused unit within the publisher.[15] Clearly, though, the Society of British Medicine journals (and STM publishing more generally) help sustain the broader structures of academic employment, alongside an increasing number of support roles, within universities. In this sense they have an outsized indirect impact, in national and global terms. More directly, the society actively seeks to increase involvement from under-represented nations, in terms of authors and editorial board appointments. Although trade unions have raised concerns around the quality of academic work, especially regarding high workloads and a trend towards casualisation, it remains predominantly a high-status, specialised profession, characterised by relatively well-paid (salaried) work and established training, progression and benefit structures – a contrast to many other cultural industries. It is also self-sustaining: the publication of research supports academics as educators, oriented towards the training of a future workforce, and this is a key area of activity for the society, cross-subsidised by publishing income.

Likewise, direct employment in publishing, as well as the contracted suppliers in Asia, is contracted, salaried and relatively high-status work for highly-educated people (recruitment advertisements for one publishing services firm specify at least undergraduate level, preferably in sciences), with some freelancing in places. Numbers of employees in these regions are hard to come by. Beyond employment, the specific place-based economic contributions of STM publishing are unclear.

Social impact

Social impacts of publishing are more self-evident. Scientific publishing is part of an endeavour to increase the stock of trusted, validated knowledge and is supported by national governments, as well as the EU, as such. This is the stated aim of Global STM's corporate social responsibility (CSR), alongside providing services to commercial and government customers. Ostensibly the principle that

[15] 'Global STM' employs around 7500 people worldwide, around a third in the EMEA intercontinental region (Europe, Middle East and Africa): it is difficult to break this down further.

publicly-funded research should produce publicly-accessible outputs lies behind the Open Access movement – although STM literature remains largely the domain of a specialist readership. Equally, the principle of not just numbers of jobs but quality of work is crucial – this is a more contested area. Both of these aspects are discussed in Part 1 of the report above. However, to take an example of how they intersect in current policy-driven transformations of the production network, there are implications for those working in the profession of librarianship, the nature of whose work is shifting but whose curatorial role remains important.

> *Essentially, the library is the messenger, the conduit, between all of those policy decisions. … I've had a number of conversations actually over the years with people in organisations such as JISC [UK Joint Information Systems Committee] and so on about what is the criteria, what is the skill set that we're actually after we've in for dealing with the aspects that we do. … So the original team, they were just library assistants on a generic library assistant job description, no different to if they were in the resources and collections ordering books and so on or working at the front line dealing with circulation and general issues within the library, it was a generic job description. So there was nothing in that to explain what the difference was over the service that we provide. When we expanded the team, we did add some Open Access elements to it, but that were those were mainly around being prepared to do the kinds of training requirements to actually go and talk to academics and academic departments and researchers and to explain policy and other decisions to them. But I know there's been quite a lot of discussion amongst the higher education library community over what is the skill set required for this. So, yeah, we have a challenge there, that if we need to recruit, if we need to hire new staff, what exactly are we asking for? What skills do we actually want? Do we insist on a knowledge of funder and open access policy, or do we just teach it on the job, as it were?*
>
> (Repository and research information leader, university library)

CSR is also important for publishing services firms, many of whom state a commitment to the places they are located within. As well as employers and sponsors of education and training programmes, they contribute funding to local development initiatives; the public-facing website of one such service emphasises its community-facing activities, in accordance with Philippine “Malasakit” principles of mutual responsibility for care – although how this translates internally is unclear.

The JBM specifically contributes to the development of medical knowledge and interventions – including, for example, Covid-19 public health data and vaccinations. It is also entwined with building public scientific literacy through intersections with education and civil society. The society is structured along these lines: the majority of its expenditure is directed towards the discipline’s education, professional training, ethical and safety assessments, public engagement and policy-facing needs. These are largely underwritten by journal income and tend to take place at the national (British) level, since this is where a majority of its members (not authors) are located.

The society organizes training. We produce … a sort of training tool and curriculum and test platform for doctors and other medical professionals who might do prescribing, to learn about prescribing. We produce curricula … and probably the final thing is we either respond to, if there are sort of consultations or things like that, or we also sort of proactively further various kind of policy things around pharmacology.

(Journals manager, SBM)

Funders are predominantly engaged in financing research that is published in journals such as the JBM. Consequently, they have an expanding social remit: driving Open Access and starting to intervene in research culture and working conditions, for example in Equality, Diversity and Inclusion initiatives. Simultaneously, many funders also have a public-facing function, echoing that of the society – as well as being "a creative partner to the research process" by building cross-national open frameworks, as mentioned above, the funder we interviewed spoke of their work with a locally-embedded (London) museum related to histories of health sciences:

That [museum] has an incredible array of materials, both physical and also digital, that we make available for everyone to use and reuse; and a diverse events program as well. That is very locally focused, but again, because it's digital and a lot of online content, we're thinking about that that global and diverse reach. … They've done enormous digitization projects to bring the physical holdings and make them accessible – from, like, medieval cookbooks to much more. And we're looking at how that library is tagged online to enable discovery.

(Project officer, funding body)

Cultural impact

The 'cultural' impacts of both the journal and the society manifest in disciplinary terms: both are engaged around the idea of building a community, which in turn gives researchers a distinctive professional identity. The disciplinary community is the primary means through which scholarly value (in the sense of research quality, intellectual and methodological rigour, professional and ethical integrity, and a commitment to the advancement of knowledge) is created, recognised, evaluated, stored, curated and protected. In this sense, the journal is the location of an archival 'tradition' – the historical literature in which the stock of knowledge is stored and to which it is constantly added and tested – that must be maintained. The Journals Manager for the Social Sciences journal described it as not just a financial "asset" but a form of "heritage". Equally, and as a result, journals are the location of 'innovation', whether in the form of new medical discoveries or improvements in existing knowledge and techniques. When pressed, the JBM Journal Manager described this as the fundamental purpose of the journal:

If we have to choose, we're here to progress the discipline. We're not here, you know, we're not a company. We're not here to make profit for shareholders.

(Journals manager, JBM)

Clearly, in the course of this relationship, it is the 'cultural' values of the discipline, in terms of community, identity, tradition and innovation of the discipline (rather than shareholder value), that structures the field of employment for researchers and which in turn structures the viability of the journal as a publication embedded in a membership. We take up these aspects in the final sections of this part of the report.

3.3.6 Policy implications

At first sight, it may appear that STM publishing – not explicitly 'cultural', lacking a defined sense of an artist, not obviously embedded in a specific locality – is an outlier, not just in the publishing industry, but also among the wider selection of CICERONE cases. However, the dynamics of the JBM/SBM case, in which a largely craft-based community of practice is shaped through engagement and increasing integration with the global spread, commercial pressures and forms of standardisation associated with a transnational corporation, will be familiar to other forms of cultural production (such as music). The scholarly society performs the historic role of building a disciplinary community, in which the journal is central, curating its archive of research and influencing future directions. In turn, the journal income supports other activities such as training, education, professional guidance and public outreach. The central role of Global STM, as lead firm in a dislocated production network that spans countries across three continents places organisational and geographic distance between core elements of the production process: writing, peer review and editorial on one side; typesetting, image rendering and technical presentation on the other. Crucially, the publisher does not itself directly control either of these activities, yet holds an outsize influence over both – and therefore the network as a whole. While IP is assigned to the scholarly society, the metadata through which higher field- or industry-level insights can be generated (e.g. on emerging trends), is held within the publisher as a core commercial asset.

Strangely, then despite its importance as the primary means through which *science* is verified and communicated, and the transformations which it is undergoing, scientific *publishing* is 'invisible' to policymakers, to a great extent. Typically, it is viewed as quite separate from other elements of the publishing industry, including trade books, educational materials or news/magazines: understandably, but awkwardly for this project, many interviewees initially struggled to recognise themselves as part of a '*cultural*' industry at all (this characteristic is paradoxically both shared with and distinct from other CCI actors who may commonly accept that they are 'cultural' but not an 'industry'). Moreover, it is not accounted for in industry statistics, whether from Eurostat, or in trade data from associations such as the Federation of European Publishers (which only deals with book sales) or the International Publishers' Association-World Intellectual Property Organisation survey (which instead relies on Web of Science data); it has its own distinct trade association (International Association of Scientific,

Technical and Medical Publishers). Detailed corporate data on scientific publishing is very hard to access and interpret (it escapes national-level reporting). Yet publishers are capable lobbyists – for instance, on the shape and direction of Open Access transformations.

Rather than the process of writing and publication in itself, publications are instead typically viewed as an 'output' (or even a spillover) of processes of scientific research and experimental development. Much intervention over governance is directed at funders, or funding coalitions; meanwhile much evaluation of its effectiveness is based on publications. Hence academic research occupies an ambiguous position between two distinct industries. This is an important point on which to dwell, in terms of governance, but perhaps particularly for labour. Scientists (and implicitly academics across all disciplines) are recognised – governed, measured and represented – as *researchers* but not as *writers*. They tend not to derive a royalty, as trade authors do; trade unions tend to focus on their role as teachers, not as authors. Instead published *outputs* are the central currency through which careers are advanced – yet the *institutional process* through which these outputs are produced is typically not recognised. In effect, scientific papers are assumed to simply emerge from the laboratory; the careful reading, writing, evaluation and curation of scholarly writing escapes many of the metrics associated with performance and progression, and are under pressure from competing aspects of a multi-faceted academic career (including teaching, administrative and public impact and engagement responsibilities). In this respect, it is unsurprising that new systems and standards are emerging to account for these aspects, such as systems for monitoring peer review performance and credit frameworks for subdividing authorial attributions. Perhaps just as important are the growing class of research support workers who mediate and translate between the 'language' of scientists and that of commercial publishing and governance frameworks, rising in number and in terms of professional representation (e.g. European Association of Research Managers and Administrators). Finally, the presentational labour of typesetting, visual rendering, formatting and coding, not to mention the back-office work of administration and coordination between various parts of the production chain, while subject to internal quality-control and managerial performance metrics, are almost entirely invisible to the policy eye (and much academic literature).

Finally, an important question is raised over the value of the scientific 'tradition' and the storage and curation of its associated 'archive' – particularly in regard to the shifting role of institutional libraries and, accordingly, professional librarians. Whereas the latter are historically the key means through researchers find and read relevant scientific writing, Open Access displaces this function onto a range of (public and commercial) digital repositories, in different places, and the capacity to link them together in stable networks of collaboration, citation and similarity. In turn, while continuing to manage legacy subscriptions, databases and special collections, the role of the academic library moves towards marshalling institutional resources and feeding into collective agreements to manage change – tending towards future obsolescence. This is a different challenge than that facing public libraries.

In all these shifts, the role of collective representation – whether trade organisations, professional associations or negotiating bodies – is a central field on which existing policy-facing activities play out.

Yet it is striking that, in the context of the publisher's dominance of value capture across the GPN and the role of funders in driving change, actors in scientific publishing hardly make the case for the recognition of their trade as a distinct industry, with specific needs for intervention.

3.3.7 Final remarks

Scientific, technical and medical publishing accords relatively well with standard conceptions of Global Production Networks, particularly the model of the lead firm with its concentration of power and capacity to capture value and shape activities up and downstream, in different localities. The case study is also quite distinct from trade publishing and its emphasis on the singular author. Nonetheless, this is a publication that is shaped by the continuing importance of a discipline, formed of and sustained by an evolving community of scholars. In this sense, STM publishing introduces crucial dimensions of 'quality', in the form of scientific rigour or of professional standards of presentation, as important decision-making criteria. The continuing centrality of such symbolic dimensions ensures the GPN remains embedded within the 'culture' of the discipline. The way in which this tension is managed at global scale makes the case an interesting limit-case and one which would be fruitful to compare with other cases across the cultural and creative sector.

The paper as a whole has explored the distinctive patterns and transformations of embedding in trade and STM publishing across the different phases of the production cycle. Both of our case studies consider how creative practice (writing a novel; conducting research), relationships between authors (creators) and readers (or users), and the funding and governance of publishing is being reshaped in relation to locality – and shifting conditions of territorial, network and social embeddedness. By drawing on both contexts, we might begin to signal possible conceptual contributions to the literature. The function of embeddedness in normative GPN approaches is grounded in notions of (manufacturing) firms' contributions to local economic development, territorial anchoring and industrial upgrading, with additional attention to the role of local, regional or territorial contexts in shaping internal decisions and organisation. In this regard, the intangibility and mobility of the goods and services around which publishing activities are organised makes for a particularly dynamic and shifting process of embedding, disembedding and re-embedding, across scales, networks and industries. Both trade and STM publishing assemble sets of communities and networks around distinctive kinds of (cultural or cognitive) creativity, particular forms of text-based 'content', with their own particular conceptions of symbolic value.

The notion of a 'discipline' can be compared to that of 'genre' – both potentially a useful way of developing thinking about embeddedness in CCIs. Medical research might constitute one end of the spectrum; creative fiction and poetry might be located at the other end. Academic humanities (i.e. a different 'subgenre') could be considered a hybrid form, institutionally embedded in university-driven systems of knowledge production but with closer links to the 'traditional' trade publishing model:

greater emphasis on the book as 'carrier'; 'content' based on ideas with some public crossover potential; associations with the career of the public intellectual (author as brand), etc. Equally, humanities display a different relationship to the Archive than the STM norm: closer to the idea of a literary canon which is to be reinterpreted and re-evaluated (whether plundered for new intellectual resources; or "decolonised", to allow older ideas to surface), than a body of scientific precedents, to be accumulated or falsified; as such, they exhibit much slower rates of production and experience much longer citational 'half-lives', in a dynamic that fits awkwardly with the digitised architectures and expectations of newer STM platforms. Such 'genre-based' features – concerning the creation, valuation and use of written ideas – are implicated in the management of organisations and (sub-)markets, as institutional logics, in ways that make it very difficult to separate 'economic', 'social' and 'cultural' conditions and impacts.

It is a commonplace in CCI policy to conceive of cultural production in terms of innovation – indeed, it is useful to consider the embeddedness of publishing in such terms (national innovation systems or global innovation networks) – but there may also be value in reversing the analogy. Publishing has internal 'cultural' aspects, in terms of the practices, values and norms of presenting, communicating and transforming stories and findings across multiple formats and contexts. Emphasising these may well prove generative for other GPN-based studies. As digitisation and platform-based production continue to disembed publishing from traditional institutional contexts and re-embed them in global informational platforms, with new forms of value capture (while hybrid formats and business models emerge to bridge this divide), authors and multinational firms alike must also be mindful of these cultural and genre-based aspects.

PART 4. Conclusions

4.1 Conclusions

Writing (both creative and technical) is but one aspect of communicating ideas. To be effective it needs reproduction and distribution, a means of engaging with an audience, and an archive, in the context of which it acquires meaning (and to which it contributes). However, the dominant social, economic, and cultural focus is on the author; the means through which the carriers of their message are produced lie very much in the background. This quality is shared by most industries in the Creative Sector. The aim of this report has been to offer a more balanced perspective on publishing and authorship which, we believe, is enabled by the Global Production Network framework. With this lens, we can observe a dramatic reverse of the 'author as king'; perhaps 'author as pauper' might be a more appropriate label.

As we have seen, a basic tension of the field is that between the rights associated with authorship and how authors reach readers. Balancing the division of income against the power to control publication has brought governments to regulate the field: first, in terms of (existential) authorial rights; and second, in terms of the monopoly power of publishers facilitated by mass reproduction. Much is the same for the Audio-Visual sub-industry. But publishing is unique in the cultural field, as generally the writer is given a right of 'free expression' (free speech is protected but not the right to make music, art, or pottery).[16] Literacy is a universal aim, with education an intrinsic component in developing reading and writing skills. How the interests of authorial will, publishing control, and readership are resolved in practice is variable: based on the particular type of content, its language, genre, the regulatory regime and the balance between broader economic and cultural forces.

Our discussion has focused on the organisation of the production of the written form, stepping back from debates about principles and rights (the topic, aside from literary criticism, most usually discussed in relation to writing). But it is not unrelated. Our analysis shows that some quite distinct asymmetries of power exist, and in many senses undermine any notion of a right to free speech if there is no means to broadcast it, or read it.

4.1.1 Case studies

The field of publishing is wide, ranging from popular novels and non-fiction, literature and poetry, to reference works and scientific outputs, to news reporting, journalism and beyond. Between them,

[16] The UNESCO 2005 Convention on Cultural Diversity has sought to enshrine 'creative rights' akin to the 'free speech' notion; not simply based on questions of censorship, but also on the ability to make a material living from being an artist. However, a Convention is an agreement in principle and does not have the power of law to back it up. The notion of the 'right of the artist' is more than the ability to make art in private (the parallel here is the 'right' to free speech in a vacuum), but it extends the means and conditions by which artists may express this to others (in short a creative ecosystem).

many separate genres and subdivisions exist. All forms share the communality of needing to be re-produced (even with digitisation). Moreover, whilst the rise of the popular novel created a vast commercial market in books, there was still a counter-balance to be made with scientific and high cultural texts which have long been assumed to be not-for-profit, hence subsidized for the public good. Our case studies were chosen purposefully to express two significant dimensions of the publishing world: first, a form generally considered 'high culture' (poetry); second, the field of scientific publishing. While at first sight it may seem strange to group culture and science together, we regard science as a particular type of cultural activity.[17] The means of state funding for science is not so different from that of the arts, based on an imperative to support future social and economic needs that are neglected now based on popularity alone. A crucial distinction underlying this choice is between writing that, in the first case, is predominantly bounded by a language community and nation state and that which, as in the latter case, has become a global practice (largely by domination of the English language). Each provides insights into the responses of publishing to changing regulation, state support, markets and patrimony.[18]

4.1.2 The industry

Complementing the 'breadth' of publishing forms, our report highlights the common 'depth' dimension. Historically, a distinct division of labour developed between printers and authors, to which has been added the intermediaries of editors and agents. Collectively, we recognise this as publishing.[19] In the twentieth century, the combination of advanced mass printing technology and the normalisation of remuneration rates for IP led to the potential of vast monopoly profits for printers (and distributors and retailers). This gave the publishing firms the greatest – and often absolute – negotiating power in the decision to publish.[20]

Our analysis shows how digitisation 'unbundled' the control and ownership of some rights, enabling a reconfiguration of publishing markets, including re-licencing opportunities and a new trade in metadata. Digitisation created new opportunities by 'cracking open' what previously appeared to be a closed business model. Likewise, commercialisation has created a difficult territory for populations who relied upon the state to support 'high' culture and science. Internationalisation, let alone globalisation, can only be achieved by shared language and translation. Clearly, those languages that have the most numerous speakers in the world have an advantage while those with smaller numbers face considerable barriers. Language is a key component of identity and heritage, so cultural (sometimes also national and regional) sustainability is closely linked to the availability of written and

[17] Of course, the E, S, and C in UNESCO stand for 'Education, Scientific and Cultural'.
[18] The patrimony of science is a particular form of enlightenment expression and the falsification of hypotheses.
[19] It is interesting to note that authors are still seldom collected with publishers; the romantic division of artist and producer is resilient (but one we seek to break down – analytically- here).
[20] The costs of distribution and printing in the analogue age made it financially impossible for niche producers and artists to express themselves via the printed form.

published cultural expressions – alongside the availability and control of a (material or virtual) 'printing press' to reproduce and distribute work.

The aspects of the means of production noted above are a set of shifting parameters, negotiated by individuals and organisations in what might be best called the 'tactical' choices of publishing. We have seen two parts of the publishing industry deploy different combinations of approaches. However, our informants have also illustrated ways in which different paths can be explored, even within the same art form. These tactics can be satisfied by balancing several factors: with a restricted distribution or reliance upon a huge market; targeting a generalist mass audience or a specialised niche one; to go international or to stay local; using print or digital representation. The combination of choices entails certain trade-offs of value/s: there is more than one way to publish material, and a variety of ways express a personal ethics of engaging with the world.

4.1.3 Location

The question of the location of 'publishing' has never raised much debate. Yes, it has given rise to discussion of national cultures of narrative tradition, led by a particular author or authors. But, whereas it was once assumed that printing capabilities are ubiquitous, both the economics of printing, and the reputation of particular presses, dictate otherwise. This again shows the complex relationship between economic and cultural value. Clearly, the gatekeeping role of the editor as guarantor of quality (political, regional, technical) has meant that it was linked to universities. This role now vies with that of multi-national publishing houses that we see in scientific publishing (and the popular novel).[21] Moreover, with the latter we see that the components of writer, publisher and readers are internationally distributed, and very nearly global in scale.

4.1.4 Embedding

This issue of location highlights another side: embedding. Because it concerns a writer's communication with their reader, the 'culture' of the book, or of writing, is interwoven with localised or common experiences and expressions of identity. This communicative relationship is selectively rooted in local and trans-local communities of experience but is expressed at an intersection: a place (real or imagined). The recent decline of bookstores, but the rise of 'bookfairs' (with the parallel of the conference in scientific publishing), point to the continued importance of this cultural sociality in the constitution of, and future making of, book markets. The Szymborska example is illustrative of how regional cultural consciousness is allied to an art form. Often, we see nation states seeking to

[21] The economics of scientific publishing, and poetry on one hand, and the popular novel on the other hand, resemble niche and mass market forms.

capitalise on these moments to reinforce their 'imagined community'. The particular timing of Szymborska's Nobel prize is significant, as a clear example of national pride and support of the educational system, and the poetry form. Post-communism Szymborska has had her legacy managed by (effectively) an agent who has sought to develop the brand for its economic and cultural value. However, this has been limited by the resistance Szymborska herself felt towards market exploitation of her work.

The dis-embedding that is represented by the internationalisation of economic activities exists in imminent tension to the embedding of the local. In principle, a global culture of science should naturally be represented by a parallel global organisation of publishing; in practice, it is not so simple. Several of our informants noted how local practices, and local knowledges, were valued by some but swept away by more powerful forces to the detriment of science.[22]

4.1.5 Dimensions of change

Compared to general industry, the book market and the science market are similarly unusual: their premise is to convince the reader to novelty, to something that they don't know they might like or need. Publishing is very much a cult of the new with readers continually enticed to try something new and different. Publishers of scientific literature and poetry have developed different (respectively, global and local) tactics to ride the changing technological and economic times. The means by which both have achieved this is different but similar: branding. Publishing has always sought a means to differentiate its 'product' while it undergoes constant change. Genre is one means by which publishers, authors and archives make their product 'recognisable' to readers: selling a 'class' of books (not a single book). Likewise, the 'brand' performs a similar function, specific to a particular practice. The prestige of a scientific 'outlet', and its scientometric score, are both deployed as signals of quality to readers (even if such metrics are disputed); as is the emergence of the 'human brand', attached to a body of work associated with a particular author (as genre). Such associations typically enable the further cross-licencing of IP for exploitation in other spheres (music, games, branded products).

4.1.6 Final comments

Clearly, technological changes have not erased the tensions between economic and cultural values in publishing. The trade-off is never zero-sum. Nonetheless a new configuration is emerging in which writers, agents, publishers and other intermediaries across the network have sought to strategically reposition themselves. In the 'analogue age' IP was contained in the structure of the book, bought

[22] Indeed the 2005 Convention is based on the premise that once cultural knowledge is lost to the world, it is gone, not to be recovered. This generally reduces the diversity and the quantity of the reservoir of human knowledge.

and sold as a traditional commodity; now, IP components are redistributed across the production and value chain, while other new properties are generated, with new or associated rights. Publishers retain the upper hand in terms of the IP catalogues that they have built (the 'archive') and can repurpose across the field. Authors can self-publish, potentially reaching a global audience, but it is not the means of production alone that guarantees a sale – publishing's established advertising and promotion functions set the framework. The notion of the author brand, and the academic journal, are the latest battlefields; metadata may well be the next.[23]

At base is the unequal power distribution between authors, their agents, and publishing companies. While IP laws created principles of ownership and remuneration, the percentages and actual sums mean that few authors can survive, let alone prosper, on earnings from writing. Retailers generally gain a larger slice of the purchase price; digitization has led to publishers gaining a larger proportion of earnings.[24] In both ways, authors are materially worse off, with little bargaining power, representing a challenge to the sustainability of the category of author, both as form of employment and as moral form. There are pressures, as in other cultural forms, to (de facto) strip authors of their 'rights'[25] and roll them up in an employment contract whereby they revert to the firm. Truly, the death of the author.

[23] Ownership of metadata rights are a legal 'grey area'. An example: data is co-produced by walking down a street while surveilled by camera, which then becomes digitized as movement data with commercial value; likewise, users sign away the virtual rights to their internet activity by 'giving away' cookies (a condition of use for most web browsers).

[24] Platforms are set to challenge publishers in the next round of recognitions and takeovers. One future might be found in scientific publishing, where journal articles are almost loss leaders for the data that can be mined from them, then repackaged and sold on to a variety of new markets. Academic authors, or indeed institutions, have not benefited from this new income stream.

[25] Not '*de jure*' but rights would revert to employers who provide 'the means of production of creation'.

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Appendix A. Methodology

A1. Research methodology

Introduction

The general aim of the CICERONE research, and in particular of WP2, is to understand the role of Cultural and Creative Sector (CCS) in the local development of EU countries starting from the configuration and dynamics of their global production networks (GPNs). This work package is based on a case study approach combining quantitative with qualitative research. The former is aimed at positioning the sector along a number of dimensions, while the latter will uncover the more in-depth aspects of the GPNs of the selected industries. While the project adopts a prevailing qualitative approach, it also envisages secondary data analysis. The case study approach is coherent with the research aim because of its ability to cover both the phenomenon and its context.

This appendix presents the main methodological issues of the WP2, some of which have been pointed to at the beginning of the reports.

Methodology stands for the systematic examinations of procedures and modalities of explanation that are used for the analysis of empirical data[26].

In social sciences, empirical research may adopt a descriptive or an explorative logic; however, all research is always informed by a theoretical apparatus, even though the connection between theory and empirical research takes different connotations in the different disciplines/fields.[27] Notably, epistemology draws a distinction between explanation and comprehension. Explanation implies the search for a stable nexus of causality between two (or more) variables, independently from the social and historical context. The underlying assumption is that we should be able to identify universal laws explaining the nature of observations (like in the so-called hard sciences). Comprehension refers to the traditional Weberian conception of understanding the meaning of the action for social actors. Such a meaning is influenced by institutional, normative and cultural dimensions that are spatially and historically specific. Reality is not simply described, but it is read, analyzed and interpreted.

In a situation where universal laws are inapplicable, the logic is to search for empirical generalizations. In order to move towards empirical generalization, social sciences make use of models or typologies

[26] Selvin, H. C. (1958). Durkheim's suicide and problems of empirical research. *American journal of sociology*, *63*(6), 607-619.

[27] Rueschemeyer D. (2009) Usable Theory: Analytic Tools for Social and Political Research.

starting from Weberian insights. Weber describes ideal types as 'mental constructs, formed by the analytical and one-sided 'accentuation of one or more points of view and by the synthesis of a great many diffuse, discrete, more or less present and occasionally absent concrete individual phenomena, which are arranged according to those one-sidedly emphasized viewpoints into a unified analytical construct'.[28] Through ideal types, reality is recomposed and synthesized starting from classificatory categories, so to help researchers to identify dynamics and mechanisms that underlie social processes.

Traditionally, empirical research is based on either qualitative or quantitative methods (or both). The distinction between the two has a technical nature: the choice depends on many elements, such as the research questions, data availability or the approach that drives it.

The choice of the method: the case study

Among many qualitative methodologies, case study research investigates in-depth into a real-life phenomenon by considering its situatedness and contextual embeddedness. [29] Such a case can be an individual, a group, an organization, an event, a problem, or an anomaly.[30] Contrary to the quantitative logic, the case is chosen because it is of interest[31] or for theoretical reasons.[32] Unlike experiments, the contextual conditions are not delineated and/or controlled but are part of the investigation.

In the case study methodology, the selection of cases is a crucial phase, and generalization of results is mostly based on that. There are two modalities to select case studies: [33] random and information-oriented selection. Random selection is usually chosen to avoid systematic biases in the sample; in such circumstances, the sample size is decisive for generalization.

In social science research, cases are generally not randomly selected because it is difficult to in depth explore a huge sample. Moreover, random selection not necessarily provides informative cases, while in a research based on information-oriented selection of cases, the generalizability of results can be increased by the strategic selection of cases. As Flyvbjerg claims:

> "*When the objective is to achieve the greatest possible amount of information on a given problem or phenomenon, a representative case or a random sample may not be the most appropriate strategy. This is because the typical or average case is often not the richest in*

[28] Weber, [1904] in Rossi P. (1974)(ed.) *Lo storicismo contemporaneo*. Loescher, Torino: 124-125.

[29] Ridder, H.G. (2017). The theory contribution of case study research designs*. Business Research*, 10(2), 281-305.

[30] Burawoy, M. (2009). *The extended case method: Four countries, four decades, four great transformations, and one theoretical tradition*. Univ of California Press; Stake, R.E. (1995). *The art of case study research.* Sage, London; Yin, R. K. (2014). *Case Study Research Design and Methods* (5th ed.). Thousand Oaks, CA

[31] Stake, R.E. (1995). *The art of case study research.* Sage, London

[32] Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of management journal*, 50(1), 25-32.

[33] Flyvbjerg, B. (2006) Five Misunderstandings About Case-Study Research. *Qualitative Inquiry*, 12(2).

information. Atypical or extreme cases often reveal more information because they activate more actors and more basic mechanisms in the situation studied." 34

Information-oriented selection of cases implies that case studies are selected based on the expectations about their insights into processes, agency, strategies (information content). The experiment in hard sciences can also be seen as an extreme example of information-oriented selected case studies.

"*Carefully chosen experiments, cases, and experience were also critical to the development of the physics of Newton, Einstein, and Bohr, just as the case study occupied a central place in the works of Darwin, Marx, and Freud. In social science, too, the strategic choice of case may greatly add to the generalizability of a case study*".35

Cases bring new knowledge either because they have a strategic importance in relation to the general problem or because they help to test the validity of the theory. Moreover, case studies allow cross-country comparison: the different contexts shed light on different dynamics related to economic circumstances, national and local regulatory framework, labour market, local culture and know-how, and so on. According to Robinson[36] the choice of the territory assumed as the basis of the comparison (being it a nation, region or city) should be carefully chosen in relation to the single case study rather than assumed a priori.

Research design and research steps

As said, WP2 is based on a mixed methods approach of investigation. This means using both quantitative and qualitative tools; primary and secondary data allow a complex research design composed by several interconnected research dimensions: a sector description, an analysis for the identification of the case studies and the case studies themselves.

Industry description

Quantitative data was used to have a factual overview of European GPNs in CCS together with literature and desk analysis.

Literature analysis and quantitative (secondary) data were used to explore and describe the features of each sector, its quantitative consistence and its European production network, its role in the European economy, the territorial distribution of its companies and the typical business models.

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[34] *Ibid. p.229*

[35] *Ibid. p226*

[36] Robinson, J. (2011). Cities in a world of cities: The comparative gesture. *International journal of urban and regional research*, *35*(1), 1-23.

1. Literature review – for each industry
    a. Configuration of the Production Network (input-output structure) in the selected industry
    b. Prevailing governance typology in each industry (e.g. power relationships, barriers to entry, value adding mechanisms, labour processes/skills …) + possible governance typologies considering single interfirm relationships
    c. Key socio-institutional dimensions affecting network configuration/dynamics (e.g. fiscal incentives, property rights, labour legislation, path dependent cultural aspects) at various levels (European, national, regional)
    d. (possible) Changes over time (e.g. digitalisation, technologies, …) + possible firms upgrading processes (value capture strategies)
    e. (possible) National variations and specificities (e.g. national funds that support the film industry)

Statistical mapping of production network of CCS in Europe

Statistical data at the EU level (by Nuts 1, 2, 3 if possible) on number of firms, employment, VA, ... relative to the *different network phases* (e.g. creation, production, distribution, etc.) composing the Production Networks of the 8 selected CCIs.

Case studies in WP2

One of the strengths of the research lies in the fact that the great variety of case studies share a common unit of analysis. This is the production network of actors, firms, organisations involved in projects, which is very much in line with a whole body of literature on forms of collaboration in the cultural and creative industries. According to Watson (2012, p. 168), the benefits of a such project-based approach are:

> *"… first it moves beyond [solely] structural analyses to allow for an understanding of the importance of agency in project work; second it allows us to move on from firm-level analyses to develop an understanding of the complex social networks involved in [production networks]; and finally it moves on from research at the meso-level on inter- and intra-firm networks to provide micro-level analyses of project work."* [37]

Such an approach enabled the whole research to take into account agency *and* structure as well as their interaction, thereby heeding the view of Powell and Smith Doerr[38] who conceptualise networks both as relational forms and structural ones.

[37] Watson, A. (2012). Sociological Perspectives on the Economic Geography of Projects: The Case of Project-Based Working in the Creative Industries. *Geography Compass*, *6*(10), 617-631, p. 618.

[38] Smith-Doerr L, Powell W (2005) Networks and Economic Life. In Neil Smelser and Richard Swedberg, eds. *The Handbook of Economic Sociology*, Russell Sage Foundation and Princeton University Press.

As anticipated in *The Cicerone approach to production networks* section of this report, cases were selected on the basis of their informative power and of the theoretical expectations about their insights. Particularly, case studies represent a sufficient range of variation in terms of key business model characteristics, geographical span within the EU limits and cross the borders of European countries, finally and obviously they are accessible to researchers.

Such choices aim at bringing new knowledge on the contribution of the European CCS to local development, sustainability, social cohesion and (local) identity. Furthermore, as already discussed, an information-oriented selection of case studies increases the generalizability of results.

In details, theoretically based case study selection was grounded on the review of the existing literature on CCS and their organizational forms[39] assuming a novel viewpoint. Three common aspects underlie this choice.

A) GPNs in the CCS, as in any other industries, are characterized by differential power relations. Powerful actors (the lead firm) are those who drive networks and make things happen: as explained, their ability derives from their control of key resources, namely physical, economic, technological but also social, political and immaterial ones. The control of resources however does not automatically imply that the actor is powerful until power is exercised. Rather than being matter of actors' position in the network (more or less marginal actors), power should be conceived as the capacity to concretely exercise control within it. Governance identifies the authority and power relationships that affect how resources – material, financial, human, etc. – are distributed and flow along the chain. Following Gereffi it is possible to distinguish between two typologies of networks: the producers- and the buyer- driven chains. Governance as driveness embraces a broad idea whereby governance refers to the whole chain dynamics: this concept is meant to capture the power that lead firms exert over other participants and to highlight its ability to govern the chain by making decisions about where, how and by whom goods/services are produced. In the identification of concrete governance typologies characterising a specific sector, the concept of governance as driveness is one important aspect[40].

B) Relationships between lead firms and the other actors in the network differ across industries due to the particular features of the products/services produced, to the production process and the organization of that specific industry. The configuration and coordination of global production networks are also shaped by the expansion of demand and markets. Goods and services' demand needs to be created and sustained by final consumers and end users (i.e. think about the increased role of merchandising). It is therefore important to satisfy customer pressures, (i.e. price, quality), the so-called time to market (i.e. time imperative) as well as the

[39] Different disciplinary insights have been gathered from literature in business, economics, sociology, economic geography.
40 Greco, L. (2016) Capitalismo e sviluppo nelle reti globali del valore. Carocci, Roma.

basic access to the market and to new markets (i.e. in emerging economies). Finally, the choices and strategies of production networks are also influenced by financial considerations, which relate both to firms' activities and to their shift to non- manufacturing ones. Such aspects refer more to technical, organizational dimensions and demand that are shaped primarily by the industries' internal logic.

C) As underlined, the innovativeness of the CICERONE project lies in the application of the GPNs perspective to the CCSs. Whilst a vast array of studies has concerned the manufacturing industry, considerably less attention has been devoted to the cultural and creative sector. The empirical work required by the project intended primarily to make a contribution to the understanding of the CCS considered by the project at European level. Nonetheless, the empirical research aimed also to account for the broad institutional context in which production networks operate. Institutions do not only influence chains' dynamics but should be considered constitutive of these networks in ways that are critical for understanding their social and economic consequences: institutions were therefore not be considered external to the networks even though they are not strictly connected to inter-firms' relationships.

For each industry, case studies numbers range between two to four, according to the identified typologies, complexity of the case studies, availability of interviewees and so on.

Case study analysis

The empirical research based on case studies (namely the production network of projects) was carried on through the exploration of the single network-nodes and their relationships. Qualitative data was used to produce novel knowledge in the field and constitute the base for further research.

The explicative power of the selected case studies lies in the fact that the analysis is able to produce a 'substantive' representativeness of the EU CCS rather than their statistical one; in other words, case studies analysis allows understanding dynamics, mechanisms, relationships, etc. useful for explaining the functioning of such sector.

After selecting case studies, the empirical investigation was carried out using interviews, observations, ethnographies, digital ethnographies. The key dimensions of the analysis are: the network configuration and its geographical footprint; the governance dimension (power relations; value creation); the variety of embeddedness forms; the impact on socio-economic development.

As already indicated, production networks are socially and territorially embedded, beyond their organizational embeddedness. Societal embeddedness places economic actions within a multilevel institutional and cultural framework. Territorial embeddedness appreciates the differing ways in which firms are anchored to different places and to its specific resources and features, for instance the local culture, labour forces, policies, raw materials and so on. Ultimately CCS industrial dynamics

in Europe was analysed both in their ideal-typical sense (by accounting for the specific sector-level characteristics affecting inter-firm linkages) and with concern to the differentially embedded nature of their economic activities. Attention was paid also to the ways in which actors mobilize and deploy resource, forge alliance, shape regulatory structures through discursive constructions and mechanisms that legitimate the GPN configuration, i.e. eco labels, fair trade, ethical labour, environmentally friendly productions, etc. Consideration was also devoted to any relevant policy (or the lack of it) at the different stages in chain, which may affect the way in which the whole chain is configured. Policy analysis has looked at different kind of policies, i.e. cultural but also industrial as well as regulatory and trade policies. Additionally, policy and policy environment were addressed in their multiscalar nature.

A unifying matrix focusing on the two key dimensions of governance (power) and spatial footprint allowed synthesizing the case study results by conducting a series of comparisons in different contexts. In addition, the systematization in the matrix is designed as a tool for policymakers in support of better CCS-relevant policies.

Research strategy

Preparing the interview

For each node of the production network, interviews were made to all the informed people that were considered suitable to understand the mechanisms at play in the node. The number of interviews was decided by each team according to the availability of interviewees and the information to be gathered. Three or four pilot interviews were recommended in order to recalibrate / reorganise the interview script; in some cases, interviewees were not available for the interview, but they were asked a number of key questions via mail: this solution was adopted if no alternative was possible. Empirically, the field was accessed through a company, which represents a node/phase in the network; starting from that, the whole network (both relations among phases and phases themselves) has been explored.
At the beginning of each interview, the interviewer presented him/herself and presented the research. The interviewee was given a leaflet containing information on the research as well as on the specific role that the EU can play in this field. After the signature of a consent form on the part of the interviewee, the interviewer started recording the interview. Interviews were done in person or in videoconference when the situation required it.

Each case study gathered qualitative data on a number of topics, which are detailed in the next section containing the interview outline, namely

- The interviewee profile
- The organization profile
- The network configuration
- The governance structure and strategies

- The embeddedness
- Policy
- Contribution to development

Qualitative data gathering

All interviewers allowed recording the interview with digital recorder. Interviews were then transcribed *verbatim*, pointing out emotional status only if particularly relevant.
Each interview was labelled and stored using all the following variables:

- Industry
- # case study
- Phase of the production cycle
- # interview (within the phase)
- Geography (Nuts3)
- # interview (within the industry)
- Date (DD/MM/YY)

Interviews coding

A two-step codification was used:

1) Codification of the interview according to the homogeneous excerpts on the basis of thematic areas identified for the research:
   - Network configuration → CODE: NET-CON
   - Spatial organization of the networks → CODE: GEO
   - The governance of the network → CODE: GOVERN
   - Embeddedness → CODE: EMBEDD
   - Institutional conditions → CODE: INSTIT
   - Policy → CODE: POLICY
   - Contribution of the production network to the development of European regions → CODE: EU_DEVELOP
   - Any other relevant issue that we might "discover" → CODE: OTHER

2) Codification of all the excerpts in each of the previously identified thematic areas (input-output structure, its spatial organisation, governance, institutional conditions, role in the EU development, other) based on relevant analytical categories.
   - Ex. Mechanisms of value appropriation; modalities of cooperation among organisations; upgrading mechanisms, working conditions, social/cultural embeddedness; any other new element

A2. Interview outline

Profiling the case study

A first step in the interview outline was to profile the interviewee and her or his organization, company, or agency.

Interviewee's profile

Themes to analyse:

- Position within the organization/agency/company/etc.
- Years spent in the position
- Main responsibilities
- Years spent in the organization/agency/company/etc.
- Years spent in the industry
- Years spent in the field
- Competences required for the job
- Any other relevant theme

- What is your job position within the organisation/agency/company/etc.?
- How many years have you been working in this position?
- What are your main responsibilities?
- How many years have you been working in this organisation/agency?/company/etc.?
- How many years have you been working in this industry?
- What are the main skills/competences required for your job?

Organisation profile

Themes to analyse:

- Brief history of the organisation
- Core business
- Legal nature of company
- Employees
- Any other relevant theme

- What does your organization/agency/company/etc. do/develop?
- What is the main activity performed by your company/organization/agency/etc.?
- What is your core business?
- Is your organization/agency/company/etc. independent or is it a part of a bigger company? (if yes) how responsibilities with the headquarter are distributed?
- How many employees does your organisation/agency/company have?
- Can you briefly tell me about your or organisation/agency/company? (*gather some information on its history, key moments, etc.*)

Network configuration

The second step of the interview outline aimed at shedding light on the whole cycle of cultural production from creation to final users (actors involved, roles, geography). In what ways is the industry X articulated/organised? How does the division of labour occur in the industry? Who are the main actors? Their roles? The geography?

The sketch of a diagram together with the interviewee can be a very useful tool at this stage: we suggest to use a large sheet of paper and start with the interviewee in the middle; then add the other organisations/agencies/actors/… involved in the different phases (locate the phases at the corners of the paper). Use this diagram as a map throughout the whole interview.

- Among the projects (services/activities/goods/event) that you briefly presented us, let us consider now the chosen one (possibly it should be one that involves an extended/extra-local/European/international network). Please, help us to identify the whole cycle of cultural production and your role in it.
- Who are the actors that are involved, together with you, in the carrying out of your project (i.e., customers, intermediaries, consumers/audiences, etc.)?

Actors involved

Possible actors involved:

- Artists, composers, designers, creatives
- Producers
- Suppliers, impresarios
- Audience, customers
- Intermediaries, dealers, experts, critics
- Media, influencers
- Archivists
- Any other relevant actor

Themes to analyse for each actor:

- Description of the actors
  (Who they are? Big or small organizations/groups, independent, subsidiaries…)
- Role played by the actor in the network
- Type of resources mobilized (financial, economic, reputational, technological resources…)
- Any other relevant theme

- Who do you work with?
- Who are the people that are involved in the realization of the project?
- Who are the suppliers that are involved in the realization of the project?
- Can you tell us more about them?
- (i.e. SME / large organizations, public/private, local/global, independent/subsidiaries, etc.)
- What kind of resources do they mobilize in the project?

- (i.e. a service, an idea, technical or professional knowledge, raw materials, a semi-product, a final product, financial assets, etc.)
- Who are your customers? or your audience?
- Do you sell directly to the final consumer?
- Are there any actors in your business that you would define as intermediaries? Why? For instance, because they help your product/you to be visible, or they "translate" your work for the audience, or they appreciate particularly your work.
- Is there anybody that helps you in promoting your products/projects? (e.g. art curators, advisors, critics, etc.)
- Do they have an impact on your business? How?
- What do they do precisely?
- What does their intermediation consist of?
- Could you give me an example of a situation in which intermediaries were useful to your business?
- How did you come in contact with this intermediary?
- How did they find you?
- Has your relationship with intermediaries changed over time? Why?
- Do media and influencers play a role in your business?
- How do they impact on your activities?
- How do they get to know you?
- Let us consider the social media. Are there any influencers on Instagram/Facebook/etc. that have an impact on your strategies/activities?
- Have your own accounts an impact?
- Do you use them to promote your project?
- Have you or has your organisation got an archive of your projects (creations/services/activities/products)?
- Have you or has your organisation been part of a show/exhibition/etc.?
- Does collecting exist as a practice in your business?
- (If yes), Who are the collectors? Does a collecting market exist?
- Who decides on what will be archived and in which form?
- Have your projects ever been part of a collection?
- Are there any museums/institutions particularly important in your industry that collect major/innovative works?

Spatial organisation

Themes to analyse:

- The geography of the network
- The issue of physical distance
- The management of distance (if relevant)
- The management of communication (if relevant)
- Any other relevant theme

- Where are the actors/organisations of the network located? (Use the diagram to identify actors)
- (consider all the phases of the PN)

- Have you ever experienced any problem due to the distance? (for instance, dealing with something implying face-to-face communication; the need to check a process personally; …)
- How do you communicate with the different actors in the network?
- Do you need to travel a lot?
- How is the geographical distance managed?

Governance

What kind of relationships govern and regulate the network organization in the Industry X? What are the economic, socio-institutional, political aspects affecting inter-firms' dynamics?

Relations among network organisations

Themes to analyse:

- Type of relationships between actors (formal/informal)
- Decision-making process concerning the project. (who decides, autonomy / cooperation / subordination, participation)
- Existence of standards / conventions to follow
- Resources: type of resources that the interviewee can mobilise, whether they are specific or generic, easy to find or difficult, locally based, … type of resources that the interviewee needs, whether they are specific or generic, easy to find or difficult, locally based, …

- What's your role in the network?
- What [actor/organisation x's] role in the network? (Use the diagram to identify actors)
- How do your customers/suppliers/partners/… choose you?
- How did your customers/suppliers/partners/… get to know you?
- What are your relationships with customers/suppliers/partners/… based on?
- (i.e. trust, competences, flexibility, quality, price, uniqueness, etc.)
- Has your relationship with customers/suppliers/partners/… changed over time? Why?
- Has your relationship with your customer(s)/audience impacted on your business in terms of production/profit growth, number of people working in the company/organization/agency/etc., visibility, etc. Could you quantify it?
- Do your suppliers/partners provide you with standard projects?
- Have you ever asked them to customise their products for you?
- Do your suppliers/partners provide special goods/services that are difficult to find?
- Do your suppliers/partners provide special goods/services that only them are able to provide you?
- Have you ever developed a project together with suppliers/partners?
- How do you select your suppliers/partners?
- How did your suppliers/partners get to know you?
- Have you ever had any problems with suppliers/partners? how did you solve them?
- Has your relationship with suppliers changed over time? Why?
- Do you have direct relationships with the consumers/audience of your project?
- (if yes) How do you manage it?
- Does audience/final consumer participate in your creation/production/distribution/exchange/archiving processes? How?
- How important are audience/consumers' preferences/judgments for your projects/business/activity?

- Does their judgment affect your creation/production/distribution/exchange/archiving processes?
- How are your relations with your customers/suppliers/partners/…regulated/governed?
- (i.e. formal agreements, informal accords, individual contracts, codes of conducts, etc.)
- Have you got any exclusive agreement with your customers/suppliers/partners/…?
- Does it include non-disclosure clauses?
- Does it include the use/concession of technologies/knowledge that are protected by (any kind of) agreement that you cannot use/replicate for other processes?
- (If yes) what kind of agreement?
- Who decides how to create/produce/develop/make/provide/etc. the project that you carry out?
- Does your customers/suppliers/partners/…participate in such a process?
- Do you have a say in such a process?
- Has your customers/suppliers/partners/… their own margins of autonomy in such a process?
- Do you have your own margins of autonomy in such a process?
- Can you/your customers/suppliers/partners/… negotiate terms and conditions of the creation/production/distribution/exchange/archiving/etc. process?
- Is there any quality standard to be respected in such a process?
- What are the consequences in case of non-compliance with the contract/standard?
- Do you envisage any kind of reward for your best suppliers? What does it consist of?
- Do you have any knowledge of the destination of the project (service/activity/good) that you produce/ create/develop/make/provide/etc.?
- In your opinion, how easy would it be for you to replace your other customers/suppliers/partners/…with others?
- In your opinion, how easy would it be for your customers/partners/… to replace you with other suppliers/partners?
- What do you/ does your company/organization/agency do better than others in your industry?
- What is your specific asset/advantage with respect to others?
- How important is reputation in your business? What elements are crucial for it?
- How do you build your reputation?
- How do you make yourself/your organization/agency/company known?
- Have there been any crucial moments in your organization' history/your career that have changed your reputation?
- Have there been any people that have been particularly important for your career/your organization' growth?

Price and value

Themes to analyse:

- Mechanisms at play in the price and value formation
  (decisions, relevant aspects such as brand, status, reputation, production…)
- Actors involved (or excluded) in value/price formation
- Any other relevant theme

- Who decides the price of the project that you exchange with your customers/suppliers/partners/…?
- On the basis of what dimensions?
- (i.e. market position, competencies, reliability, reputation, brand, design, technology, etc.)

- Can you/your supplier(s)/customer(s) negotiate the price? On what basis?
- With respect to such a price do you think that your contribution is adequately rewarded?
- Could you tell us how much it costs the realization of the project that you exchange with your customers/suppliers/partners/…?
- How often do you receive a non-monetary reward for your work? What do you receive instead?
- Does the price of the service/activity/good that you exchange with your customer(s)/supplier(s) allow you to run your activity/business according to legal and social standards? Why/Why not?
- Do you know the final price at which the project (service/activity/good) is sold?
- In your opinion what are the elements that contribute to determine the final price of the project?
- (it might be the price of the final good, the price of the ticket of a concert/show/exhibition but also the price of the whole exhibition/festival)
- Do you think that the final price of the project is appropriate? Why?
- Do intermediaries impact on decisions about the price of your project? How?
- In your opinion does the final price of the good/service reflect its value?
- In which stage of the production cycle (refer to the diagram) is the value of the project mostly created?
- Who are the actors/organisations in the PN that gain the most from the realisation of the project? Why?

Working conditions, labour and collective actors

Themes to analyse (when applicable):

- Profile of the workforce/associates/collaborators/partners
- Recruitment process and wage definition
- Organisation of work
- Presence and role of trade unions in the organisation/agency/company/etc.
- Presence and role of trade unions and/or business/trade associations in the industry
- Any other relevant theme

- Do you have employees/collaborators/associates, etc.?
- How is your workforce composed?
- (i.e.: percentage of professionals/consultants/technicians/workers, etc. out of the total, but also percentage of women/men, percentage by ethnicity, etc.)
- How is work organized in your organization/agency/company, etc.?
- (i.e.: on projects, regular working time, piece rates, etc.)
- What types of contracts does your organization/agency/company mainly apply to them?
- (i.e.: fixed-term contracts, permanent contracts, agency staff, freelancers, consultants and contractors, etc.)
- Do they work mainly full time/part time?
- Where do they mainly work?
- (i.e. offices, ateliers, workplaces, at home, in co-working spaces, etc.)
- What aspects do you mainly consider when selecting the workforce?
- (i.e. skills, formal training and education, experience, reputation, flexibility, technical knowledge, etc.)
- Do you employ foreign professionals/workers? Why?

- Do you have internships? Do you have any specific agreement with schools/universities in this respect?
- How do you set salaries and working conditions for your workforce?
- (i.e.: collective agreements, plant level agreements, informal agreements, individual negotiation, etc.)
- Does your organization/agency/company set any productivity incentives/bonus for your workforce?
- Do workers have a say in the activity carried out by the organization/agency/company?
- Do your workers must respect any codes of conduct?
- Do your workers must respect any non-disclosure agreements/clauses?
- Are trade unions present in your organization/agency/company/etc.?
- What are their main claims?
- Have they ever helped you? When?
- Do they influence your business? How?
- (i.e. through the bargaining process, strikes, demonstrations, disputes, etc.)
- Have you had any conflicts with unions recently?
- (If yes), Could you tell me what was the issue?
- How did you negotiate your positions?
- What is the role of business associations/trade associations/etc. in your industry? (at different levels: local/regional/national/international)
- Do you participate in some of them?
- (If yes), How is this beneficial?

Skills and knowledge

Themes to analyse:

- Main skills/competencies/resources required in the industry
- Skills/competencies/resources that make the interviewee / organization crucial / important for the network.

- What kind of skills/knowledge/competencies/technologies/etc. are involved in/needed by your production/creative/distribution/etc. process?
- Do you have any specific expertise that makes you irreplaceable to your partners?
- Do you find skill/knowledge/competencies/technologies in the local labour market or do you need to acquire/buy them from abroad/very far from you/in a difficult way?
- Do you provide any training programme to your workforce? Who decides for them?
- Does/do your customer(s) play a role in such a process?
- (i.e.: sending consultants/technicians/skilled workers, organizing training programmes, etc.)

Innovation

Themes to analyse:

- Main innovations for the industry and the specific economic activity
- Impact of innovations on the cycle of production
- Impact of innovations on relationships with partners
- Impact of digitisation
- Any other relevant theme

- How do you keep yourself informed on the latest technologies/innovations/trends/etc. that are relevant for your business?
- (i.e.: fairs, contests, consultants, journals, magazines and trade publishing, etc.)
- What is the most important/recent innovation that has been introduced in your creative/production/ distribution/exchange/archive process?
- (focus on different types of innovation: product, technological, stylistic, in the distribution, …)
- Who/what urged this innovation?
- How did this innovation impact on your business?
- (Please, explore the different implications of this innovation)
- Did it allow you to develop new organizational capabilities?
- To hire new/qualified workforce?
- To reach other customers or/and enter new/different markets/businesses/activities?
- To acquire new/better capabilities?
- How did innovation impact with your work?
- Have you been asked to acquire new skills?
- How did this innovation modify your relationships with the other actors/organisations of the network?
- Have you ever needed/solicit collaboration with schools/universities/ laboratories/education centres/etc. for developing/learn any innovation?
- (i.e. for finding skilled professionals/workforces and/or for developing new skills/competencies/knowledge)
- Is there any research centre with which you cooperate to research and develop new services/products/ideas? Are they private, public or are they the result of public-private partnership?
- Has digitalisation had an impact on your activity? How?

Embeddedness

Relations between the production network and the region

Themes to analyse:

- Resources that the territory/context offers and relevance for the activity carried out
- Advantages/disadvantages connected to the area
- Role of Institutions
- Policies
- Any other relevant theme

- What kind of resources can this territory offer to your organization/agency/company, etc.?
- (Here's a list of possible items that you may explore: know-how, traditions; logistics; skilled labour; research structures, academies and schools, innovation hubs, incubators; geography and natural resources);
- For instance, with reference to social resources:
- What kind of social resources can the community of this area offer to your company/organization/agency/etc.? (i.e. local work ethos/culture, informal relations, attitudes towards the economy, openness to innovation, diversity, social values, cultural activities, etc.)
- In what ways are they relevant for your activity?

- Do you think that the local community supports your economic activity? (If yes) In what ways?
- Would you say that it is strategic to be here? Why?
- What factors keep you here?
- Has this territory a special reputation in your industry's tradition? How do you benefit from it?
- (i.e. territorial brand that may help your activity?)
- What are the problems of the territory that impact on your organization/agency/company, etc.?
- Do institutions (regional, local authorities, ---) in this territory encourage economic initiatives in your industry? In what ways?
- Do institutions (i.e. region, local authorities, ---) encourage cultural initiatives in this area? In what ways?
- Does the economic and institutional context in which you work help/hinder your activity? How?
- (focus on fiscal requirements, industrial policies, labour regulation, environmental standards, trade policies, etc.)
- Do you think that the existing policies at regional level are adequate to the needs of your organization/agency/company?
- (focus i.e., on innovation policies, labour and tax regulation, incentives, industrial policies, etc.)
- Do you think that the existing policies at national / international level are adequate to the needs of your organization/agency/company?
- (focus on innovation policies, labour and tax regulation, incentives, industrial policies, trade policies, intellectual property right agreements, etc.)
- Has your organization/agency/company, etc. tried to influence policy making?
- Has your organization/agency/company, etc. benefited from policy initiatives developed in industries connected to yours?
- Do you participate in some regional-funded project/initiative?
- In your opinion what should be done at a policy level to promote/help your industry/activity?

Contribution to socio-economic development

Themes to analyse:

- Socio-economic impact of the PN on the region
- Birth/decline of new/traditional job/economic activities connected to the PN
- Birth of new professional/technical schools/courses connected to the economic activity
- Collaboration with institutions/universities/schools
- Participation of the interviewee/organisation in local cultural/social initiatives
- Economic/social/environmental sustainability
- Any other relevant theme

- Does your involvement in a network of (global) activities impact on the economy of the region you work in? In what ways? (i.e.: incomes, employment and wages, local taxation, touristic trends, etc.)

- Has your participation in the network favoured the birth/diffusion/expansion/decline of new/traditional jobs/professionals and/or economic activities connected to it?
- Has your participation in the network favoured any collaboration with universities or local schools?
- Has your participation in the network favoured the birth of new professional/technical schools/courses/etc. connected to your activity?
- Has your participation in the network favoured the development of local cultural and social initiatives?
- (i.e.: festival, fairs, competition and contests, community revitalization programs, urban regeneration, etc.)
- Has your participation in the network favoured the involvement of your organization/agency/company, etc. in the social life of your locality/region? (i.e.: charity initiatives, with prisons, etc.)
- Do you support/promote any local association/organization/initiative/festival/fair/sport club/etc.?
- Are you involved in any local association/club/organisation for the promotion of the local society?
- (i.e. local festival, local fairs, etc.)
- Has your participation in the network contributed to improve the well-being of your workforce's conditions in this region? (i.e.: labour standards, diversity promotion, health and safety, etc.)
- Has your participation in the network contributed to improve the environmental sustainability of your economic activity? (i.e.: introducing cleaner technologies, environmental sound processes, materials, etc.)
- Do you think that your business has contributed to change/improve your region's image/reputation? In what ways? (i.e.: local specializations, brand rent effect, testimonials, etc.)

Concluding session

- In your opinion, how important is your contribution to the production network you participate in?
- How do you think you are contributing to the development of local society?
- What are the main values that inspire your activity/organization?
- How do you imagine this industry in ten years' time?
- (focus on e.g. cultural hybridization, technological innovation, new markets, etc.)
- How do you imagine you/your activity in this industry in ten years' time?

A3. Availability of national statistical data

There are many different sources of data gathered on the national level. Some of them are coming from the government offices or the specific, trade institutions like Book Institute in Poland. However, the problem is that very often those reports are impossible (or very hard) to compare. Despite that several sources of information about the publishing industry have been discovered and indicated below.

The main source for Europe as a whole is a report created by the Federation of European Publishers: "The Book Sector in Europe: Facts and Figures" (2017).

Denmark:
https://www.dst.dk/en/search?q=book&ui=dstdk

Finland:
https://www.tilastokeskus.fi/til/klt/index_en.html

France:
http://traduction.culture.gouv.fr/url/Result.aspx?to=en&url=http://www.culturecommunication.gouv.fr/Politiques-ministerielles/Etudes-et-statistiques/Les-statistiques-culturelles/Tableaux-statistiques-par-domaine_Cultural-statistics/Livre/%28language%29/fre-FR

Germany:
https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Bildung-Forschung-Kultur/Kultur/Publikationen/Downloads-Kultur/kulturindikatoren-1023018189004.html

Greece:
https://www.statistics.gr/en/statistics/pop

Italy:
https://www.istat.it/en/archivio/publishing+industry

Northern Ireland:
https://www.communities-ni.gov.uk/topics/culture-and-heritage-statistics

Poland:
https://instytutksiazki.pl/en/polish-book-market,7,reports,18,polish-book-market-2018,46.html

Portugal:

https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_publicacoes&PUBLICACOESpub_boui=277093009&PUBLICACOESstema=00&PUBLICACOESmodo=2

Spain:
http://www.culturaydeporte.gob.es/servicios-al-ciudadano/estadisticas/cultura/mc/culturabase/libro/resultados-libro.html

Switzerland:
https://www.bfs.admin.ch/bfs/de/home/statistiken/kultur-medien-informationsgesellschaft-sport/medien/medienangebot-nutzung/printmedien/buchproduktion.html

United Kingdom:
https://www.gov.uk/search/research-and-statistics?organisations%5B%5D=department-for-digital-culture-media-sport&parent=department-for-digital-culture-media-sport

A4. Labour market statistics for Polish publishing

This appendix gives a national-level overview of publishing, using alternative data sources from the Eurostat (Part 2) and Trade Body (Appendix 3) sources mentioned in the report. The following data comes from an independent company researching the book market in Poland, Biblioteka Analiz, and from quantitative research on the labour market of artists led by prof. Dorota Ilczuk in recent years Thinking about the publishing industry, we ask how many people in Poland are professionally involved, how many people are employed in various areas related to the book - making this stairway from the author to the reader possible.

According to the data collected in different reports by Biblioteka Analiz as well the outcomes of a research *Estimation of the artists and creators in Poland* (Ilczuk et al. 2018, unpublished). there was a significant number of people employed in a publishing industry.

Phase	Number of employees	Year that data comes from
Creation	2 830	2018
Production	28 490	2013, 2016
Distribution & Exchange	64 500	2016
(Exchange) & Archive	23 306	2016
Total	**not less than 119 126**	-

source: own research 2020

Creation

Table 12. Professions by number in literature (2020)

Occupation	Number
playwright	40
other writers	100
audiovisual translator	150
scenarist	300
poet	370

Occupation	Number
songwriter	370
prose writer	550
literary translator	950

source: Policzone i policzeni. Artyści i artystki w Polsce (Ilczuk et al. 2020).

There are 2830 authors and creators artistically working in the publishing industry in Poland (Ilczuk et al. 2020). Within Polish publishing women (57%) outnumber men (43%) (Ilczuk et al. 2020).

Defining the occupations of the creation phase of publishing to include those such as poet, translator of literature, other writers, songwriter, playwright, journalist, columnist, and reporter, the size of the Polish literary labour market was estimated to be 2830 people in 2018 (Ilczuk et al. 2020). The difference in professional identity between industry representatives should be emphasised. In the literary industry, as well as in the film industry, and in architecture, we deal mainly with authors, not artists or creators. Interestingly, more literary translators (950) than literary creators (poets, prose writers) were reported to be working in publishing (920) – perhaps indicating something of the transnational nature of the market.

Education

Due to the nature of this industry, authors often do not have an arts education background. However, this does not diminish the importance of the general educational path for this professional group. Moreover, writers more often complete postgraduate studies compared to the other professional groups of creators (Ilczuk et al. 2015). In literature, 91,5% of people have a higher education; 7,9% secondary, 0,1% basic vocational, 0,3% middle school, 0,2% primary school education. (Ilczuk et al. 2020).

Wages

Salaries in literature are slightly lower (811 EUR) than among all artists in Poland (834 EUR). Moreover, the median earnings for artists in Poland is 669 EUR, for literature creators it is 700 EUR. It is worth noticing that among the ten best-paid artistic professions is counted just one writer, a film scenarist earning on average 1023 EUR after tax (Ilczuk et al. 2020). Moreover, literature scores 0,4118 on the Gini index, higher than average for Poland and similar to countries like USA. What is more, literature representatives reported working 46 hours per week, of which 24 hours were deemed artistic: in other words, slightly over half their time was spent on literary work, which is unusual among artistic professions (the average is 21 hours, of a total 45 hours in gainful employment) (Ilczuk et al. 2020).

Forms of employment

In Poland, apart from employment contracts resulting from labour law, two types of contracts regulated by Civil Code can be signed. These are a specific-task contract and a contract of mandate. The first is signed when the subject of the contract is copyrighted. The second, when the person with whom the contract is signed, has a specific task that must be completed within a specified period. Importantly, such forms of contracts do not guarantee social security or employment stability.

employment contract for an indefinite period	contract of employment on specified time	contract of mandate	specific-task contract	self-employment	no contract	other
2,59%	0,75%	6,73%	64,65%	9,47%	25,31%	9,34%

source: Estimation of the artists and creators in Poland (Ilczuk et al. 2018, unpublished)

The dominant form of employment is the "specific-task contract", a contract for specific work that generally predominates among all forms of employment among artists. However, the "grey sphere" of people working informally, without any contract, is quite high for literature - it is 1/4 of all employment forms.

Labour unions

49% of literature representatives do not belong to any labour unions or associations; 42% declared belonging to the industry associations, 11% to other non-governmental organizations (associations, foundations, etc.), 3% to other labour unions, and only 2% belong to labour unions dedicated for artists and creators. This is a generally prevailing trend, especially for the young Polish artists who do not believe in a power of unity within labour unions (Ilczuk eta al. 2020).

Literary agents

There is no data on the number of literary agents in Poland.

Production

Until mid-2014, over 40,500 publishing entities were registered in the ISBN database maintained by the National Library in Poland, but there are no more than 2,000 to 2,500 active publishers (publishing several books per year). The share of the 300 largest publishers in the industry is almost 98%. Approximately 600-700 companies publish more than 10 books a year, more than 300 reached over PLN 1 million in turnover in 2014, and around 160 over PLN 2 million. Most of the remaining registered publishers are publishers of one or few more books and do not actively participate in the publishing market (cf. Rynek Książki w Polsce, 2015). This phenomenon is correlated with an imperfect data-gathering system, rooted in the fall of communism. Publishing one book is enough to be seen as a

"book publisher"; thus statistics include many third-sector entities and so-called “publishers” who are effectively inactive. This example illustrates the importance not just of acknowledging statistical gaps and inaccuracies but to locate and embed them in territorial context.

Absolute number of persons employed in publishing industry, in 2018, given by the Eurostat Business Sector Profile of Poland was 38 284.

In 2016 there were 4690 people working full-time in the publishing houses in Poland (Rynek Książki 2017). To this we need to add: authors, translators, graphic designers, operators in DTP studios and occasional publishers. We should also take into account people dealing solely with e-books and audiobooks.

In 2016, employment in publishing houses decreased by nearly 3.7% - from 4,870 to 4,690 people. However, if you compare the year 2016 to 2010, when employment reached the highest level, the decrease in the number of full-time jobs amounts to almost 25%, and therefore is lower by almost 1/4. 2016 saw a 3.4 percent decrease in productivity compared to 2015 – annual revenue diminished from 112372 EUR to 108582 EUR per employee (Rynek Książki w Polsce 2017).

About 56000 employees work in Polish paper mills - assuming that only 20-25% of them work in the production of paper for books, and this is what a significant number of employees do (approx. 14000). There are also employees of paper warehouses and employees of companies distributing imported paper. The situation is similar in the printing industry, where over 49000 people are employed, of which about 2% are related to book printing houses (approx. 9800). The number of book-related printing workers is increasing as more and more books are digitally printed, and these are mostly small, but numerous (Biblioteka Analiz 2013).

Distribution and exchange

In wholesales there were 790 people employed on a permanent contract. Moreover bookstores were employing 5660 people (Rynek Książki w Polsce 2017: Dystrybucja, 2017).

However, the group of people associated with the book at this stage is large and difficult to count. The book is also distributed via the Internet, book clubs, hypermarkets and other shopping centers, specialized stores of other products that also sell books, antique shops, "cheap book" outlets, press bookstores. In addition, there is the direct sale of publications.

The dynamic changes taking place on the Polish book market are conducive to more and more frequent decisions not to conduct simultaneous wholesale and retail sales. At the end of 2012, 205 wholesale entities operated on the market. In the following year, their number was significantly reduced, by as much as 17%, to 170 entities. In 2014, the dynamics of this process slightly decreased,

and at the end of the year there were about 160 wholesalers operating in the country. At the end of 2015, there were approximately 150 entities with such characteristics on the market, while at the end of the following year this number dropped to approximately 125.

Employment in wholesale decreased by over 100 jobs in total, from 900 to 790 people. On the other hand, the number of jobs per each branch / company remained at just over 6 employees. This low number is largely due to the still existing regional fragmentation of wholesale, which often takes the form of seasonal sales, mainly focused on fairs or school supplies. In the year 2016 there were 125 wholesales which employed 790 people. There were 6,3 full-time vacancies per one entity, whilst the average labor productivity per employee [PLN] was on the level of 1750 thousands (increased from 795 thousands PLN in 1999) (Rynek Książki w Polsce 2017: Dystrybucja, 2017).

In Poland, the last decade has been a period of large investment on the wholesale market, which are now largely concentrated around Warsaw, from where approximately 45% were realised in 2016. The value of orders (from central Poland, including the Mazowieckie, Łódzkie and Kujawsko-Pomorskie voivodeships - approximately 65%), although recent years have also seen an increase in the importance of centers such as Kraków and Poznań. The wholesale segment has been profitable since 2004, although its dynamism is rapidly declining. While in 2014 the profit of the entire wholesale amounted to approximately PLN 36 million (EUR 8 million), with a simultaneous decrease in the value of realised revenues, in 2015 the profitability of wholesale decreased to less than PLN 29 million (EUR 6,5 million) – mainly the result of the negative results of the educational wholesale. In the following year, the profitability of the book wholesale fell to PLN 22 million (EUR 4,9 million) (Rynek Książki w Polsce: Dystrybucja 2017: 20-21). In 2020 demand dropped further, not only in Poland, but across Europe, as a result of the Covid-19 pandemic.

(Exchange and) archiving

As in many cases there is a lack of unified statistics. However, it is worth noticing that when it comes to the bookstores in Poland, since 2015 there is an initiative called „Ogólnopolska Baza Księgarń (OBK)“ - free internet portal informing about existing bookstores, indicating their location, product profile and activities.

Among 1,900 registered bookstores almost 750 are establishments belonging to chain bookstores, and therefore slightly over 1,100 are independent bookstores, often family businesses, almost ‘genetically’ incapable of renouncing their own autonomy. However, according to various estimates, there are currently no more than 50-70 bookshops on the market, which in terms of their financial condition and potential meet the conditions for participation in such an undertaking (Rynek Książki w Polsce 2017: Dystrybucja, 2017). With book sales gradually shifting to on-line services, a growing number of European publishers.

Table 16. The number of bookstores versus bookstores' employment ration

Year	Number of bookstores	Number of Employees	Average number of full-time workers per 1 bookstore
2000	2770	7800	2,82
2005	2500	6600	2,64
2010	2450	6590	2,69
2016	1890	5660	2,99

Source: Rynek Książki w Polsce 2017: Dystrybucja (2017)

A declining number of bookstores (as above) translates into declining numbers of employees. However, in recent years bookstore chains have expanded. At the end of 2015, for instance, Empik. z o.o. employed 1,225 people; a year later it was 1,571 people – of which 965 and 1,290 employees (respectively) were working in stationary Empik stores.

In 2015, approximately 9,000 people worked in the sale of newspapers, books, music and videos industry, which accounted for 3% of employment in the cultural and creative sector. (Baran and Lewandowski, 2017)

In 2013, 6,434,000 people were registered in public libraries, a year earlier it was 0.5% less (6,469 thousand). The rate of registered readers per 1,000 inhabitants was 167. Public libraries employed 23,306 people, including 13,074 with librarian education. No data exists beyond public entities of this kind (Rynek Książki, 2017).

Summing up, according to this imperfect data coming from different sources and different years - 2013, 2016 and 2018, there are not less than 119126 people involved in the production of goods of book trade publishing industry - the books.