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Precarity and progression during a pandemic. Preliminary findings from a study of early career academics' information behaviour during COVID-19

[Rebekah Willson](#), [Stephann Makri](#), [Dana McKay](#) and [Philips Ayeni](#)

Introduction. COVID-19 has increased research, teaching and administrative pressures for all academics and, by doing so, exacerbated inequalities experienced by early-career academics, who were already dealing with several sources of uncertainty in trying to establish their careers. This study sought to understand the experiences of the academics during the pandemic.

Method. We conducted semi-structured remote interviews with 18 early-career academics (PhDs awarded in past 6 years), from a variety of countries; Canada, US, Australia, UK, New Zealand, and South Africa.

Analysis. Interviews were analysed using a reflexive inductive Thematic Analysis approach.

Results. Preliminary findings demonstrate that the pandemic has disrupted information acquisition and sharing among early-career academics. The increasing amount of incorrect and irrelevant information disseminated by universities, alongside the de-prioritisation of information that is particularly valued by these academics (e.g., information related to professional development and career development) has led some to avoid information

Conclusions. The COVID-19 pandemic has further exacerbated the precarious situations faced. Universities need to acknowledge uncertainty, reduce information overload by providing relevant and useful information and provide useful information on and support for career progression.

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Introduction

In response to COVID-19, academics have had to change research plans on short notice, rapidly move teaching online, and support students facing difficult circumstances. In many countries, they have also been forced to work from home during lockdown periods, often while caring for family. For many, this has led to reduced productivity and knock-on mental health issues, including stress, anxiety, and depression. Professional (and personal) challenges presented by COVID-19 are exacerbating the inequalities that already exist within academia (e.g., Butler, [2020](#); Tabner, [2020](#)). Many early-career academics – postdocs, research fellows, and academic staff members – are already dealing with multiple sources of uncertainty, including job precarity, unpredictable finances, and insecure housing (e.g., University and College Union, [2019](#); Gottschalk and McEachern, [2010](#)). Related to information behaviour and practices, they also have difficulty finding workplace information required to do their jobs (Willson, [2018](#); Willson and Julien, [2020](#)). Information-related difficulties, when combined with the uncertain implications of lost research opportunities, deep university cuts, and rapid change, make this a particularly difficult time to be an early-career academic. Understanding the information-related challenges faced can help us provide more suitable information to support them. However, much of our understanding of their information behaviour comes from anecdotal evidence and newspaper reports; empirical research is lacking.

Literature Review

Within information behaviour, there has been a long tradition of studying academics (e.g., Bronstein, [2007](#); Chu, [1999](#); Ellis, [1993](#); Given and Willson, [2018](#)). While valuable, much of the research around academics' information behaviour has investigated how information is used during research and in search of formally published sources. Less understood are the information activities in which academics partake daily. However, there has been a shift to examining everyday information behaviour and practices in workplaces and daily lives, with increasing recognition of its importance (e.g., Lloyd, [2009](#); Nordstien and Byström, [2018](#)). A major challenge for early-career academics, particularly those new in their jobs, is a lack of workplace information regarding their day-to-day activities (Willson, [2018](#)) – information required to carry out their work. Workplace information can include formal policies and procedures (e.g., research codes of practice, classroom assessment policies), but also practical and logistical information (e.g., system login information, printer codes). The pandemic has made it more difficult for all academics to do their jobs, but these academics are experiencing particular information-related challenges; for example, starting a new job during the pandemic, not being able to be physically at the university, and not having regular contact with colleagues can make it very difficult to get necessary information.

Academia is an information-intensive field. During times of crisis, there is increased need for accurate, timely, and up-to-date information for effective decision-making and job performance (Lockyer, et al., [2021](#)). Many universities have extended tenure clocks or made other temporary policy changes to help deal with uncertainty. While these changes may help, it is not clear what their consequences will be, and questions have been raised as to whether policies will have the desired effect, especially as COVID-19 is disproportionately impacting female academics' productivity (Flaherty, [2020](#)). We do not yet know enough about the nature of the difficulties early-career academics are experiencing because of the pandemic. A better understanding can inform the design of policy to address some of the inequalities they face. This research investigates their experiences and their resulting information behaviour through the theoretical lens of uncertainty reduction (Kuhlthau, [1993](#)).

Information is crucial during times of change (Willson, [2019](#)), particularly when universities are making decisions that will directly impact early-career academics' lives, professionally and personally. During a pandemic, uncertainty – about the current situation and the future – provides a useful theoretical approach for understanding early-career academics' experiences related to the pandemic. Uncertainty can come from '*a lack of understanding, a gap in meaning, or a limited construct*' (Kuhlthau, [1993](#), p. 347) and has been successfully applied to understand information-related needs and activities (Wilson, [1999](#); Wilson, et al., [2002](#); Chowdhury, et al., [2011](#)). However, uncertainty can also come from unstable, unresolved, and ongoing

situations – such as making career transitions (Willson, [2019](#)), immigrating as a refugee (Lloyd, Pilerot, and Hultgren, [2017](#)), or working during a pandemic (Lloyd and Hicks, [2021](#)). The nature and impact of ongoing, unresolvable uncertainty makes it important to understand information behaviour and practices within personal and social contexts. Early-career academics experience high levels of this type of unresolvable uncertainty: where their next job will be, whether they will have job security, whether they will be living in the same place next year. These uncertainties are exacerbated by the pandemic, which is affecting university employment and work opportunities alike.

Research aims and questions

This research aims to understand the information behaviour and practices of early-career academics and the role of uncertainty in this behaviour, to inform best practices for supporting them during and after the pandemic. The research questions are:

1. What are the information behaviour and practices of early-career academics during COVID-19?
2. How is uncertainty influencing early-career academics' information behaviour and practices?
3. What information is being provided (or not) to early-career academics and how are they using it to make decisions?
4. How is this information communicated, found, and shared between universities and early-career academics?

Methods

Participants

Participants were early-career academics, defined as working primarily in academia, on research-only, teaching-only, or research and teaching contracts, and who had completed their PhDs within the last six years. Eighteen academics were interviewed – 14 postdocs, three assistant professors/lecturers, and a research fellow – from Canada, United States, Australia, the UK, New Zealand, and South Africa. We stopped sampling when data saturation (significant overlap and no new key insights) was achieved. Ethical approval was obtained from McGill University.

Data collection and analysis

Semi-structured interviews were conducted over Zoom and lasted approximately one hour. Questions focused on the academics' broad experiences during the pandemic and associated information behaviour and uncertainty. For example, we asked about their typical working day during the pandemic, differences they noticed in their professional life since the pandemic, the impact of uncertainty, how and what information universities are communicating, and what support they are offering. (See interview guide in supplementary file.) Many of these conversations were emotional and difficult; we debriefed with participants afterward and provided support resources to ensure they were not unduly negatively affected by participation in this study. Interviews were transcribed, and transcripts were analysed using a reflexive inductive thematic analysis approach (Braun and Clark, [2021](#)) and participants were assigned pseudonyms.

Preliminary Findings and Discussion

Disruption to information acquisition and sharing

The shift to virtual work meant that many early-career academics experienced disruption to acquiring and

sharing work-related information. One demonstration of this comes from Ariana, who explains it is more difficult to request informal advice from colleagues online, as hallway conversations are no longer possible:

'I could talk to people [work colleagues] but I will send them email like, 'Do you have time to talk to on Zoom later? Let's schedule Zoom meetings'. It's not the hallway kind of conversations that [you] just pop your colleague's office, 'Oh my God I just got this student cheating, what should I do?' I actually feel bad like [my spouse] takes the brunt of everything.' - Ariana (Assistant Professor, US)

In virtual environments, contacting colleagues requires planning. There is no incidental contact, which can foster information exchange, making sharing information at work more challenging. While departmental or lab meetings may continue, informal networks – 'loose connection[s] of individuals who regularly interact with one another, who may or may not share interests' (Willson and Julien, [2020](#), p. 1) – are disrupted. Informal networks are key to supporting information acquisition, for example through asking and answering questions (Willson and Given, [2020](#)), serendipitously encountering information through informal interactions (Erdelez and Makri, [2020](#)), visiting information grounds at which information is likely to be shared (Fisher, et al., [2007](#)), or receiving information by proxy (McKenzie, [2003](#)). This disruption to informal networks served to obstruct early-career academics' information acquisition, which is particularly damaging as they often needed information about their jobs and university.

Inundated with (the wrong) information

Many of the participants reported receiving a high volume of COVID-related communications from their universities, mainly via email. Universities often sent multiple messages that could become overwhelming, particularly as pandemic measures changed regularly. The frequency and amount of information shared could be overwhelming, as discussed by Zoe:

'[The University] definitely gave weekly COVID Monday emails every time there was a government change. Universities get quite a lot, so the night before, the night of, it was reassuring staff about, 'We're going to – the policy will come at this point,' and as you can expect, there's been a lot of communication, so it's overwhelming. It's easy to lose things or miss things. Sometimes things aren't that clear.' - Zoe (Postdoc, UK)

Furthermore, several participants found the information they were sent was not timely and/or not the information needed. Information received was often only of marginal relevance because it was too general (e.g., information on government policies); frequently early-career academics needed more information about sustainable research funding, border openings, and when they could conduct research in person. This was information universities often did not yet know. The lack of relevant information led some to avoid university e-mails. This supports findings of previous research that some people avoid information to manage uncertainty (Sairanen and Savolainen, [2010](#)) and in response to overload (Bawden and Robinson, [2009](#)). Early-career academics were overwhelmed by information and demonstrated avoidance in response to those feelings, supporting previous work on academics' information behaviour and practices during the pandemic (Lloyd and Hicks, [2021](#)). Information avoidance is particularly concerning in a crisis situation, as it may prevent them from receiving useful information (Soroya, et al., [2021](#)) that could provide much-needed support.

Ongoing uncertainty makes it difficult to evaluate information utility

Early-career academics receive information from many sources – the news, social media, their universities, colleagues, etc. However, COVID-19 has resulted in major aspects of their work and lives becoming and remaining uncertain. Examples include postponed job start dates, insecure funding, undetermined

conferences (online vs. in person vs. hybrid), closed borders, etc. Ongoing uncertainty makes it difficult to evaluate information utility. For example, how useful is it to obtain information on funding opportunities if there is a question mark around continued funding during the pandemic?:

'How are those funding agencies going to resolve funding for science? ... I think that really scares me because a lot of the opportunities that I could apply to, for example, it would be based on European funding so. Yeah, that definitely scares me, and it really increases the uncertainty because I don't think...there are estimates yet of how the pandemic is affecting science. I mean, there's estimates of, you know, broad economical changes, but I don't think the science part of it has been populated yet. I don't know if it can.' - Evelyn (Postdoc, Canada)

Evelyn not only voices uncertainty, but also expresses this uncertainty in affective terms – demonstrating the anxiety of not knowing. This is consistent with recent research that found information overload is strongly associated with information anxiety (Soroya, et al., [2021](#)). Many interviewees expressed strong emotions. Kuhlthau's ([1993](#)) previous work highlights the importance of affective aspects of information acquisition, including uncertainty. However, it suggests information acquisition serves to gradually reduce uncertainty. While that may be the case during discrete information search sessions, our findings highlight it is not necessarily the case for more generalised uncertainty associated with a pandemic. More information in a situation characterised by ongoing uncertainty is not always helpful.

Conclusion

This study provides insight into the influence of uncertainty on the information behaviour and practices of early-career academics; uncertainty disrupted information sharing and led to information overload and avoidance. By examining ongoing uncertainty, its affective dimension (particularly anxiety) was highlighted, as well as the failure of information to bring resolution. The ongoing uncertainty and precarity associated with being an early-career academic has been exacerbated during the pandemic. Based on our findings, we provide the following practical suggestions:

- Limit the number of mass e-mails sent by universities, focusing instead on quality of information provision to groups, such as early-career academics, who are particularly impacted by uncertainty;
- Disseminate information tailored to specific academic units/communities, to promote community building, nurturing and cohesion; and
- Ensure that early-career academics have regular (formal and informal) contact with colleagues and opportunities to ask questions, express concerns and share their experiences.

Future research might examine the impact of prolonged uncertainty on early-career academics and their information behaviour and how best to support them through effective information provision.

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