



## City Research Online

### City, University of London Institutional Repository

---

**Citation:** Berube, L., Makri, S., Cooke, I., Priego, E. & Wisdom, S. (2023). "Webcomics Archive? Now I'm Interested": Comics Readers Seeking Information in Web Archives. In: CHIIR '23: Proceedings of the 2023 Conference on Human Information Interaction and Retrieval. (pp. 412-416). New York, USA: ACM. ISBN 9798400700354 doi: 10.1145/3576840.3578325

This is the accepted version of the paper.

This version of the publication may differ from the final published version.

---

**Permanent repository link:** <https://openaccess.city.ac.uk/id/eprint/30122/>

**Link to published version:** <https://doi.org/10.1145/3576840.3578325>

**Copyright:** City Research Online aims to make research outputs of City, University of London available to a wider audience. Copyright and Moral Rights remain with the author(s) and/or copyright holders. URLs from City Research Online may be freely distributed and linked to.

**Reuse:** Copies of full items can be used for personal research or study, educational, or not-for-profit purposes without prior permission or charge. Provided that the authors, title and full bibliographic details are credited, a hyperlink and/or URL is given for the original metadata page and the content is not changed in any way.

---

City Research Online:

<http://openaccess.city.ac.uk/>

[publications@city.ac.uk](mailto:publications@city.ac.uk)

---

# “Webcomics Archive? Now I’m Interested”: Comics Readers Seeking Information in Web Archives

“Webcomics Archive? Now I’m Interested”

## Comics readers seeking information in web archives

Linda Berube

City, University of London, linda.berube@city.ac.uk

Dr. Stephann Makri

City, University of London, stephann@city.ac.uk

Ian Cooke

The British Library, ian.cooke@bl.uk

Dr. Ernesto Priego

City, University of London, ernesto.priego.1@city.ac.uk

Stella Wisdom

The British Library, stella.wisdom@bl.uk

### Abstract

There is a longstanding tradition of understanding information needs and interaction behavior across different user groups to inform the design of digital products and services. There is a gap in such research of comics readers, specifically how they seek and interact with the information and interfaces of web-based archives provided by cultural institutions. For example, while information interaction research has now recognized that information-seeking for leisure and pleasure are important domains of study - consuming information based in fiction can help us escape to exciting worlds by captivating narratives - and while there have been studies of how people find fiction to read, there have to our knowledge been no user-centered studies on how people find and consume digital comics. This exploratory study provides an enriched understanding of the information needs and interaction behaviors of digital comics readers and how that understanding can inform the design of digital platforms to better support them.

### CCS Concepts

Human-Centered Computing (HCI) • Information Retrieval • Interaction Design • User Characteristics

### Additional Keywords and Phrases

Digital Comics Readers, Interface Design, Interaction Behaviors, Web Archives

### ACM Reference Format

## 1 Introduction

At the time of writing, Comic Rocket, “a crowd-sourced indexing tool for users to find, read, bookmark and share their favorite webcomics” [1], has indexed almost 42,000 webcomic titles. Although certainly not as many sites as contained in the whole Web, and not even as many webcomics on the Web, this amount provides “a baseline estimate” [2] that identifies a small but important proportion of material for potential web archiving. While the information needs and interaction behaviors of scholarly or academic readers using web archives have been the focus of research thus far, especially as it relates to the analysis of large-scale datasets, there has been relatively little focus on recreational readers specifically of comics produced on and for the web also known as digital comics.

What do information needs and interaction behaviors look like from the perspective of recreational or non-academic comics readers trying to find comics through the webcomics archives offered by libraries? User-centered studies can provide a fresh perspective on understanding digital comics users' needs and how those needs might be best supported through design of digital comics platforms and archives. In the first instance, this exploratory reader study elicited recreational reader feedback on the UK Web Comic Archive [3] through the use of User Experience (UX) and Human Information Interaction (HII) methods. More importantly, the findings from the data collected fulfilled a primary aim of the study: to understand what digital comics readers require or expect from digital comics platforms in general and specifically from webcomics archives collected by cultural institutions. Digital comics readers in the study demonstrated that they bring information needs and behaviors from web-based platforms into their interaction with archival finding tools. This approach to heritage organization finding tools can be more broadly instructive of how readers and users in general engage with emerging types of visual and text-based information.

## 2 UK Web Comic Archive: Background and Description

Since 2004, UK national libraries have been archiving websites from the UK domain. Initially this activity began with the selective archiving of websites based on website owners' permissions (the Open UK Web Archive) [4]. After 2013, a more wide-spread harvesting of websites began within the Non-Print Legal Deposit Regulations of 2013 [5]. From this considerable archive, specific Topics and Themes, representing 125 collections or sub-archives to date, are 'curated': representative sites are selected to provide an overview or background of the subject. The UK Web Comic Archive, the Topics and Themes collection under consideration for this exploratory study, was created in 2017 and consists of 65 UK online comics ranging over different types on the Web.

The Archive's home page includes the title banner and archive description, as well as a search box providing an open search field and no advanced searching. In addition, there is a list of comics sites captured for archive with some description, offering the only browsing mechanism from which to base a selection. The entry or record for each archive capture includes the title (of the comic), a message in red indicating if it is only viewable on library premises, a description, an archived date, and the url which the reader clicks to view the archived page or capture (not the live site) (Figure 1).



Figure 1. Archive capture of Discord Comics by Tab Kimpton. Retrieved from

<https://www.webarchive.org.uk/wayback/archive/20171001081918/> <http://www.discordcomics.com/> (archive capture from <https://www.discordcomics.com/>). The figure demonstrates the features of an archived page: comic title, date captured, calendar of captures, language.

## 3 Related Work

### 3.1 Web Archives Studies

For heritage institutions, such as libraries where print comics have been traditionally collected, digital comics are perceived as an emerging text- and image-based format important for their cultural, social, artistic, and literary content [2, 6, 7]. Based on these criteria, it is clear why national libraries would want to preserve them. To understand reader needs and expectations of online comics archives, specifically using UX and HII methods, it became apparent early on that a broader approach was necessary. The widening of the scope of a literature search from non-commercial, library-based online comics archives to web archives in general was dictated by the lack of empirical research, especially focused on recreational readers of these archives whose purpose is to be accessible to all.

For recreational readers of web archives, Costa and Silva (2010) provide an example of a 'laboratory study' including self-defined and directed information-seeking tasks, leading to the conclusion that web archive users focus on the navigational followed by the informational [8] [9]. While predominantly research has been focused on scholarly, academic, or institutional use [10] [11], web archive research focusing on scholarly information needs and interaction behaviors employing HII methods are largely under-represented in the literature. Two UX studies were directly concerned with the UK Web Archive: Hockx-Yu [12] which includes a survey of and telephone interviews with scholarly readers, and Gooding et al. [13] which also includes a survey of scholarly readers as well as interviews with the staff of UK national libraries. Academic staff and students consulted in both studies revealed an almost universal lack of use of web archives in general and the UK Web Archive in particular.

### 3.2 Information Seeking Behaviors

Because reader activity in this study focuses on information-seeking and browsing behaviors [14] [15], it is useful to consider if related research reveals specifically what unique behaviors comics readers exhibit in searching for comics online. A search of the literature results in several studies on the information-seeking behaviors of various professions, including historians, doctors, lawyers, genealogists, physicists, and novelists. Empirical research on the practices of comics readers in the digital environment is lacking [16]. Readers with more of a visually-based orientation may "no longer [be] satisfied with searching images using just metadata and textual

descriptions” [17]. Accordingly, the types of studies that match browsing and searching with images [17] [18] have some application when considering comics readers, as do those studies examining browsing and selection of ebooks based on cover thumbnails [19] [20].

Hockx-Yu (2014) [12] and AlNoamany et al. (2014) [21] raise an important consideration in what could potentially drive readers towards using an archive for webcomics: for historical purposes to discover webcomics not found on the live web, essentially “goal-directed” searching [22]. This kind of use has to do with the perception of what an archive is or does [23] and determines the information-seeking and interaction behaviour of readers navigating their way to and around an archive. ‘Goal-directed’ searching goes to the very nature of what readers in this study expected of the UK Web Comic Archive, finding comics that have disappeared from the web, for example. However, this expectation was combined with experience using commercial platforms where browsing especially combined with visual content is a major part of information-seeking.

## 4 Data Collection Methods

This exploratory study of digital comics readers interacting with the UK Web Comic Archive was designed to understand what digital comics readers need from information and technology that support them in finding and interacting with web-based comics. The approach involved naturalistic observations and interviews of digital web comics readers searching and browsing the archive remotely. The ‘think-aloud’ instructions (e.g., telling participants to explain what they are thinking, doing, feeling, as an adapted version of Makri et al.’s 2010 approach [24]) gave readers free reign with little intervention from the researcher, allowing for disparate experiences to be expressed.

These sessions were conducted with five participants, none of which identified themselves as scholarly readers and all having used the British Library (and the resources of other libraries) for personal interest. The five study participants, all digital comic readers (DCRs), are referred to in this paper as DCR1, DCR2, DCR3, DCR4 and DCR5. They were selected not based on their familiarity with the archive, but because they were regular readers of digital comics.

The 90-minute sessions were conducted remotely over Zoom. While it is customary for these types of sessions to be conducted face to face, preferably in a lab or in situ, pandemic and geographic restrictions dictated the remote setting with one researcher. The remote approach was successful in the depth and type of data that was collected. Moreover, there is precedent for the small number of participants, especially in HII and HCI. According to Makri et al. (2019), “exploratory studies of this nature are suited to small participant numbers, and frequently seen in Human Information Interaction literature” [22]. The objective in this study was not to generalize findings, but to uncover issues indicative of further research.

To achieve the objectives, data was gathered using two methods:

- semi-structured interview (45 minutes and researcher-led) where participants were asked questions about their reading habits, including place and frequency; types of comics, devices, platforms; how they discovered new comics; and their interaction with creators and publishers. Participants were also asked about their use of web archives to read or learn about comics
- search scenario and observation (45 minutes and reader-led) consisting of searching and browsing the UK Web Comic Archive. The participants were given a scenario verbally: “Someone has mentioned the UK Web Comic Archive to you, which sounds interesting. How would you go about finding it? Once you have found the site, talk me through as you explore it, by searching, browsing etc”. This scenario also gave them the opportunity to expand on how they usually discover new comics and comics platforms.

Every effort was made to minimize bias: for example, the researcher’s input into the contextual observation and directed search activities was limited to clarification and confirmation-type questions. We used inductive thematic analysis, paying particular attention to how participants discovered comics, how they interacted with interfaces, what was most helpful in seeking and finding comics online [25]. Data was coded using both transcripts and screen captures from video recording.

## 5 Findings

### 5.1 Learning about New Digital Comics: A Role for Webcomics Archives?

While there are several sites that attempt to list or index comics online (see Comic Rocket example above), none of the participants in this study had encountered a library-hosted webcomic archive, nor an index or lists of sites such as Comic Rocket. The predominant reason was that their preferred methods of discovering new comics was through referrals from friends and others, whether that be face-to-face, in chat rooms, or through social media. In addition, for those using reading, distribution, and storefront platforms, such as Comixology (Amazon) [26], Marvel Unlimited [27], or Kindle [28], the Suggested or Recommended Reading options might attract interest while browsing the site, perhaps enough for a selection. One participant mentioned finding new comics through other reading, for example newspapers, while DCR4, who backed seven graphic novels on Kickstarter [29], would use the site’s recommendation system to browse for new comics to back.

Given these preferences for discovering new comics or sites about comics, the first part of the search scenario, finding a suggested comics site through a web browser, in this instance the UK Web Comic Archive, felt unusual: “usually my friend will give me a link” “or I will usually follow a link from Instagram” were some of the comments.

This is not to say that participants were unenthusiastic when learning about the existence of the Web Comic Archive through the scenario. In fact, when DCR2 learned of the UK Web Comic Archive through the description of the search scenario, they exclaimed,

“Now I am interested!” DCR4 admitted to not using web archives or any kind of online comics indices but acknowledged it “was a good idea”, observing that it would be useful were it not for the Recommended Reading section that appears in their digital comics app.

## 5.2 Visual Engagement with the Interface Design of the UK Web Comic Archive

Participants were also uniformly clear about whom they thought the intended users for the archive were. All the participants instantly assumed that the UK Web Comic Archive was targeted at researchers for scholarly use. This was not solely because it was offered through a national library, but also because of the interface design, their ability to interact in a way they had become accustomed to with other platforms, and the way options for search and browse were presented.

In describing their reading habits including the apps and platforms they used and how they interacted with them, the participants invariably described themselves as “visually-orientated” or as “visual culture-oriented”. For example, DCR3 explained how the current web environment, combined with their love of comics, conditioned their expectations:

“[For] users of the internet, social media, most sites will have had loads of money pumped into them, lots and lots of UX and UI research pumped into them, enough to make them extremely easy to use”.

There was a range of impressions of the interface design of the website, but DC3 represents a common view on the design of a website to attract comics readers. DCR3 did like the simplicity of the design: “Graphic design and the font used, it’s very clean and nice. It’s very easy on the eye. They’ve made sure that there’s enough white space and it’s not overcrowded”.

However, they still thought the design worked against attracting comic readers:

“My first reaction is I’m slightly surprised that a website about comics has such a dull and comics- free presentation, that would be immediately my impression...I would have expected some sort of splash feature or page which showed comics in some format, whether it’s modern day webcomics or traditional comics...If they can’t really push the art then I am wondering what it’s worth as a visual format” (DCR3).

DCR4 raised relevant points for the use of this kind of material: “I can imagine there might be some copywriting issue there”. Regardless, they felt that “this is an academic resource for people like yourself engaged in comics research who have convenient access to a major library to consult printed copies”.

## 5.3 Browsing and Searching the Site

This expectation of more visual elements, specifically comic art, was carried over into browsing practices. While providing their opinions on the visual design, all participants began learning about the site by an initial scroll (not through an immediate search) through the home page and then browsing through the list of comics on the site.

DCR3 noted that they would be looking for some kind of “inspiration” that would tempt them to choose from a list of largely unknown comics: “for a comics site, this is an extremely text heavy site”. Thumbnails, or some kind of ‘recommended comic’ feature, would motivate them to interact more actively with the interface by clicking and retrieving an archived capture. DCR1 referred to these thumbnails as “indicative imagery”: this along with number of times and when the comic was archived “needs to be more obvious” in the description. There was repeated mention among all the respondents of comics as “a visual medium”: “I still can’t get my head around that this is a comics archive and there are no comics on it... with thumbnails at least, I’d be browsing around, but here I am just working off the basis of some text” (DCR3).

The key issue participants experienced when searching was that it was too “open”, and they were uncertain what could be searched—title, subject, creator etc.—and how. While some respondents could understand why there might not be any images (copyright, for example) and ascribed the reason for the simplicity of the design to a more academic research use, they could not understand the issues they had with a search function that lacked important comic-related metadata. One of the respondents referred to the use of the search box as “[trying] to brute force through the search function” (DCR5). Indeed, none of the respondents were able to complete a successful search using the search box, although they tried titles of the comics from the browse list and words they picked out from the descriptions (LGBT, for example). After a few such tries, DCR5 gave up, stating “I do not know enough to hit the archive properly”. DCR3 felt that the archive was for researchers who are knowledgeable about comics so do not need search help or comics art on the website. While acknowledging the perceived drawbacks of the search function, DCR3 and DCR5 ultimately thought it was their lack of scholarly knowledge about comics that determined their lack of success.

## 6 Discussion and Future Work

Although there are different types of comics readers, from casual to engaged through to fans, this study demonstrates there are common information needs and interaction behaviors among them. We introduced digital comics readers to a system they had not used before not necessarily to assess usability, but to get a better idea of their information needs and behaviors when searching for and reading comics online. Because of the focus on scholarly use, web archives are traditionally designed to be ‘search-first’ (and perhaps even find-focused), but based on the findings from this exploratory research, web-based comics archives may need to be ‘browse-first’ and discover/encounter-focused.

Because of the exploratory nature of the research, we make no strong claim to generalizability beyond the participants’ use of the UK Web Comic Archive. However, the findings are not necessarily system-specific but address further avenues for research of digital comics and information and interactive behaviors. These behaviors are not only to a certain extent developed by comics reading apps and

platforms, but also to a greater extent from the visual focus of comics themselves. Readers prefer the visual-orientation of comics, and they expect to see this combination even in comics finding aids and archives. Accordingly, an online comics archive should demonstrate what readers can achieve informationally and interactionally: visually search for similar comics, visually browse by comic art, and click through to read.

The findings of this study suggest further research to address the design of information systems in such a way that supports multiple approaches to browsing and searching for digital comics and other content that lends itself to discovery by image and text. It paves the way for further examination of HII behaviors among the different groups of digital comics and other visual content readers, informing the design of platforms that encapsulate the engaging and interactive spirit of comics.

## ACKNOWLEDGEMENTS

This research was supported by the UK Arts and Humanities Research Council's Additional Student Development Fund and conducted in conjunction with Linda Berube's AHRC Collaborative Doctoral Partnership PhD research supported by the Centre for Human-Computer Interaction Design, City, University of London and the British Library.

## References

- < bib id="bib1" > < number> [1] < /number> Comic Rocket. Retrieved October 20, 2022 from <https://www.comic-rocket.com/explore/>. < /bib>
- < bib id="bib2" > < number> [2] < /number> Megan Halsband and Stephanie Grimm. 2018. Panel problems: Issues and opportunities for webcomics archives. *Arts Documentation: Bulletin of the Art Libraries Society of North America*, 37, 2, 119-140. DOI 10.1086/700204. < /bib>
- < bib id="bib3" > < number> [3] < /number> UK Web Comic Archive. Retrieved October 20, 2022 from <https://www.webarchive.org.uk/en/ukwa/collection/1370>. < /bib>
- < bib id="bib4" > < number> [4] < /number> UK Selective Web Archive. Retrieved October 20, 2022 from <https://data.webarchive.org.uk/opendata/ukwa.ds.1/>. See also UK Web Archive Open Data. Retrieved October 20, 2022 from <https://data.webarchive.org.uk/opendata/>. < /bib>
- < bib id="bib5" > < number> [5] < /number> Department for Digital, Culture, Media & Sport. 2013. *The Legal Deposit Libraries (Non-Print Works) Regulations 2013*. Retrieved on 20 October 2022 from <http://www.legislation.gov.uk/uksi/2013/777/contents/made>. < /bib>
- < bib id="bib6" > < number> [6] < /number> Jen Aggleton. 2017. *Collecting and Preserving Digital Comics*. Retrieved October 20, 2022 from <http://oro.open.ac.uk/62478/>. < /bib>
- < bib id="bib7" > < number> [7] < /number> Jen Aggleton. 2018. Defining digital comics: A British Library perspective. *Journal of Graphic Novels and Comics*, 1-17. DOI:10.1080/21504857.2018.1503189. < /bib>
- < bib id="bib8" > < number> [8] < /number> Miguel Costa and Mario J. Silva. 2010. Understanding the information needs of web archive users. In *Proceedings of the 10th International Web Archiving Workshop*, Vienna Austria, 9-16. Retrieved October 20, 2022 from [https://www.researchgate.net/profile/Miguel-Costa-20/publication/258998122\\_Understanding\\_the\\_Information\\_Needs\\_of\\_Web\\_Archive\\_Users/links/00b7d5299e90b96a35000000/Understanding-the-Information-Needs-of-Web-Archive-Users.pdf](https://www.researchgate.net/profile/Miguel-Costa-20/publication/258998122_Understanding_the_Information_Needs_of_Web_Archive_Users/links/00b7d5299e90b96a35000000/Understanding-the-Information-Needs-of-Web-Archive-Users.pdf). < /bib>
- < bib id="bib9" > < number> [9] < /number> Miguel Costa. 2021. Full-text and URL search over web archives. In Gomes, D. et al. (eds). *The Past Web*. Springer Nature, Cham. 71-84. [https://doi.org/10.1007/978-3-030-63291-5\\_7](https://doi.org/10.1007/978-3-030-63291-5_7). < /bib>
- < bib id="bib10" > < number> [10] < /number> Samantha Abrams, Alexis Antracoli, Rachel Appel, Celia Caust-Ellenbogen, Sarah Denison, Sumitra Duncan, and Stephanie Ramsay. 2019. Sowing the seeds for more usable web archives: A usability study of Archive-It. *The American Archivist*, 82, 2 (Fall/Winter), 1-30. DOI: 10.17723/aarc-82-02-19. < /bib>
- < bib id="bib11" > < number> [11] < /number> Jessica Ogden, Susan Halford, and Leslie Carr. 2017. Observing Web Archives: The case for an ethnographic study of web archiving. In *Proceedings of the 2017 ACM on Web Science Conference (WebSci '17)*. Association of Computing Machinery, New York, NY, USA, 299-308. <https://doi.org/10.1145/3091478.3091506>. < /bib>
- < bib id="bib12" > < number> [12] < /number> Helen Hockx-Yu. 2014. Access and scholarly use of web archives. *Alexandria*, 25, 1-2, 113-127. <https://doi.org/10.7227/ALX.0023>. < /bib>
- < bib id="bib13" > < number> [13] < /number> Paul Gooding, Melissa Terras, and Linda Berube. 2019. *Towards user-centric evaluation of non-print legal deposit: A digital library futures white paper*. Glasgow, Edinburgh and Norwich: University of Glasgow. Retrieved October 20, 2022 from <https://eprints.gla.ac.uk/235439/2/235439.pdf>. See also Paul Gooding, Melissa Terras, and Linda Berube. 2021. Identifying the future direction of legal deposit in the United Kingdom: The Digital Libraries Futures approach. *Journal of Documentation*, 77, 5, 1154-1172. <https://doi.org/10.1108/JD-09-2020-0159>. < /bib>
- < bib id="bib14" > < number> [14] < /number> Stephann Makri, Ann Blandford, and Anna L. Cox. 2008. Using information behaviors to evaluate the functionality and usability of electronic resources: From Ellis's model to evaluation. *Journal of the American Society for Information Science*, 59 (25 November 2008), 2244-2267. <https://doi.org/10.1002/asi.20927>. < /bib>
- < bib id="bib15" > < number> [15] < /number> Nicholas Vanderschantz, Claire Timpany and Chun Feng. 2018. A snapshot of reading, searching, and browsing preferences of tertiary students. In *Proceedings of the 32nd International BCS Human-Computer Interaction Conference (HCI '18)*. BCS Learning and Development Ltd., Swindon, GBR, Article 176, 1-6. DOI: 10.14236/ewic/HCI2018.176. < /bib>
- < bib id="bib16" > < number> [16] < /number> George Royer, Beth Nettels, and William Aspray. 2011. Active readership: The case of the American comics reader. In Aspray, W. and Hayes, B.M. (eds.), 2011. *Everyday information: The evolution of information seeking in America*. MIT Press, Cambridge MA. < /bib>
- < bib id="bib17" > < number> [17] < /number> Shiyang Lu, Tao Mei, Jingdong Wang, Jian Zhang, Zhiyong Wang, and Shipeng Li. 2014. Browse-to-Search: Interactive exploratory search with visual entities. *ACM Transactions on Information Systems*, 32, 4, Article 18 (October 2014), 1-27. <https://dl.acm.org/doi/10.1145/2630420>. < /bib>
- < bib id="bib18" > < number> [18] < /number> Marian Dörk, Carey Williamson, and Sheelagh Carpendale. 2012. Navigating tomorrow's Web: From searching and browsing to visual exploration. *ACM Transactions on the Web*, 6, 3, Article 13 (September 2012), 1-28. <https://dl.acm.org/doi/10.1145/2344416.2344420>. < /bib>
- < bib id="bib19" > < number> [19] < /number> Nicholas Vanderschantz, Claire Timpany, and Annika Hinz. 2015. Design exploration of eBook interfaces for personal digital libraries on tablet devices. In *Proceedings of the 15th New Zealand Conference on Human-Computer Interaction (CHINZ 2015)*. Association for Computing Machinery, New York, NY, USA, 21-30. <https://dl.acm.org/doi/10.1145/2808047.2808054>. < /bib>
- < bib id="bib20" > < number> [20] < /number> Dana McKay, George Buchanan, Nicholas Vanderschantz, Claire Timpany, Sally Jo Cunningham, and Annika Hinz. 2012. Judging a book by its cover: Interface elements that affect reader selection of ebooks. In *Proceedings of the 24th Australian Computer-Human Interaction Conference (OzCHI '12)*. Association for Computing Machinery, New York, NY, USA, 381-390. <https://dl.acm.org/doi/10.1145/2414536.2414597>. < /bib>
- < bib id="bib21" > < number> [21] < /number> Yasmin AlNoamany, Ahmed AlSum, Michele C. Weigle, and Michael L. Nelson. 2014. Who and what links to the Internet Archive. *International Journal on Digital Libraries*, 14, 101-115. DOI 10.1007/s00799-014-0111-5. < /bib>
- < bib id="bib22" > < number> [22] < /number> Stephann Makri, Yi-Chun Chen, Dana McKay, George Buchanan, and Melissa Oceppek. 2019. Discovering the unfindable: The tension between findability and discoverability in a bookshop designed for serendipity. In Lamas, D. et al. (eds.), *Human-Computer Interaction - INTERACT 2019 (IFIP Conference on Human-Computer Interaction)*, Lecture notes in computer science, 11747, 3-23. Springer, Cham. [https://link.springer.com/chapter/10.1007/978-3-030-29384-0\\_1](https://link.springer.com/chapter/10.1007/978-3-030-29384-0_1). < /bib>
- < bib id="bib23" > < number> [23] < /number> June M. Besek, Philippa S. Loengard, and Jane C. Ginsburg. 2008. Maintaining the integrity of digital archives. *Columbia Journal of Law and the Arts*, 31, 3, 267. (entire report 112 pages+appendices retrieved October 20, 2022 from <https://web.law.columbia.edu/sites/default/files/microsites/kernochoan/files/MELLON-Final-report.pdf>). < /bib>
- < bib id="bib24" > < number> [24] < /number> Stephann Makri, Ann Blandford, and Anna L. Cox. 2010. This is what I'm doing and why: reflections on a think-aloud study of digital library users' information behaviour. In *Proceedings of the 10th Annual Joint Conference on Digital Libraries (JCDL '10)*. Association for Computing Machinery, New York, NY, USA, 349-352. <https://doi.org/10.1145/1816123.1816177>. < /bib>
- < bib id="bib25" > < number> [25] < /number> Virginia Braun and Victoria Clarke. 2021. *Thematic Analysis: A practical guide*. Sage Publishing, Thousand Oaks, CA. < /bib>
- < bib id="bib26" > < number> [26] < /number> Comixology. Retrieved October 20, 2022 from <https://www.amazon.co.uk/comixology/s?k=comixology>. < /bib>
- < bib id="bib27" > < number> [27] < /number> Marvel Unlimited. Retrieved October 20, 2022 from [https://www.marvel.com/unlimited?cid=SEM\\_Google\\_20200302\\_unlimited\\_Brand&gclid=EAIaIQobChM158-t5ZTt-gIVKYBQBh07NgoDEAAYASAAEgCvOvD\\_BwE](https://www.marvel.com/unlimited?cid=SEM_Google_20200302_unlimited_Brand&gclid=EAIaIQobChM158-t5ZTt-gIVKYBQBh07NgoDEAAYASAAEgCvOvD_BwE). < /bib>

<bib id="bib28"><number>[28]</number>Kindle Unlimited. Retrieved October 20, 2022 from [https://www.amazon.co.uk/kindle-dbs/hz/subscribe/ku/promotions?promoId=ae129008-f9ab-11eb-9a03-0242ac130003&ref=abpmku\\_22\\_1\\_uk\\_psr\\_gs\\_e\\_mn\\_x\\_2mft\\_lp1\\_jc6C4YUDlk\\_d00](https://www.amazon.co.uk/kindle-dbs/hz/subscribe/ku/promotions?promoId=ae129008-f9ab-11eb-9a03-0242ac130003&ref=abpmku_22_1_uk_psr_gs_e_mn_x_2mft_lp1_jc6C4YUDlk_d00).</bib>  
<bib id="bib29"><number>[29]</number>Kickstarter. Retrieved October 20, 2022 from <https://www.kickstarter.com/>.</bib>