

CASE STUDY OPEN ACCESS

Reimagining the Humanities Book: Bringing *Living With Machines* to Life Through Experimental Publishing Workflows and Open Research Practices

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1 | Introduction

Although calls to experiment with the form and publication of the scholarly book are not new (see Wittenberg 2009 on Project Gutenberg; Crossick 2015; and Rayner and Lyons 2017), the case for innovation is perhaps being made more strongly now than ever. Rapid technological advancement and developments in open access models and infrastructure are creating new opportunities to innovate. At the same time, in the current context of increasing pressures on library budgets, re-evaluation of the publication metrics used in research assessment and growing recognition of the structural inequalities underpinning academic publishing, efforts to ‘rethink, reimagine and critique the forms, structures and systems that underlie our system of scholarly communications’ are becoming more urgent (Adema et al. 2022). In the humanities, in which the academic monograph continues to have a central role, the arguments to experiment with the forms, modes of production and ‘relationalities’ involved in book publication (Adema 2021, 20) are various, including: a need to move beyond a sciences-led approach to open research models, infrastructure, funding and policies, which risks excluding the humanities from the benefits of open (Arthur and Hearn 2021); to develop a variety of publication approaches that better suit the diverse forms that humanities research takes (Adema et al. 2022); to create more inclusive and collaborative knowledge infrastructures (Okune et al. 2019; Adema 2024); to disrupt corporate publishing monopolies over measures of ‘prestige’ and control of knowledge production (Kiesewetter 2024; Worthington 2015); and to prioritise a scholarship of ‘care’

and ‘decolonial integrity [...] allowing for and legitimizing diverse voices, methods and ways of thinking’ (Gilby et al. 2022). By ‘experimental book’ we are referring here to practices that involve use of unconventional formats, reimaged publishing workflows and collaborations, integration of multimedia content, open and community peer review, multilingual publishing and embedded reader engagement and layering tools, among other approaches (see COPIM’s Experimental Publishing Compendium for further examples, COPIM 2022–2024).

Nevertheless, beyond pockets of excellent innovative work that is being carried out in experimental publishing, and the development of open-source platforms such as Scalar and Manifold to enable it, little change is happening at scale. Several reasons can be suggested for this. First, the traditional monograph format that advances a single, specialised argument remains a valuable form for the publication of much humanities research, offering a substantive space for extended exploration and synthesis of complex ideas, and detailed engagement with supporting texts. Second, the largest-scale efforts towards innovation (led primarily by the biggest scholarly publishers) are being directed towards the development of open access models and economic flows that, in reality, sustain approaches to and forms of book publishing which are as close to the status quo as possible. And third, knowledge gaps around the workflows and practicalities required can be significant barriers for presses looking to trial more experimental modes of book publishing—it can be difficult to know where and how to start, and how to resource it (financially and with human labour). This means that the

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Summary

- Limited options currently exist for humanities researchers looking to engage with open research practices and experimental forms in book publishing.
- The adapted publishing workflows and formats used for the experimental open access book project, *Living with Machines*, offer a model for reuse by publishers and authors.
- Iterative publication, open peer review and multimedia integration increased community engagement with the book and maximised the research data and other outputs generated by the research project.
- Closer coordination between editorial and production functions, new forms of collaboration between publishers, authors and reviewers, and clear process documentation were key learnings in the effective running of this experiment.

humanities researchers who increasingly want or need to innovate and engage with broader open research practices in their publications find few publishing options available to them that are aligned with the nature and processes of their research and that maximise the sharing of that research at every stage.

At the University of London Press (UoL Press), our primary aim is to ‘open up humanities research’. Open access—the publication of works that are both free to read and made available under an open licence for reuse—is a central element of this, and roughly 80% of our books per year are published open access. We are also working on new projects that use the affordances of open publishing and technology to experiment with open research methods more broadly, such as integrating and disseminating open data, trialling new collaborative workflows and publishing approaches, networking publications to other sources, and exploring opportunities for public engagement. This case study will provide an overview of our ongoing experimental book project, *Living with Machines: Computational Histories of the Age of Industry* (edited by Ruth Ahnert, Emma Griffin and Jon Lawrence, and written by the Living with Machines Team), arising out of the digital humanities research project of the same name. With this experiment we set out to develop new publishing approaches and forms that recast the humanities book as a collaborative ‘process’ rather than a ‘product’ (Gilby et al. 2022), reflecting the open research principles underpinning the research project itself. A key aim is to open up our workflows for this project through transparent documentation. This case study outlines the adaptations we have made to our standard publishing processes, our use of the Manifold platform to facilitate this, and our reflections on the project’s first two phases carried out to date.

2 | Project Background

The Living with Machines research project (2018–2023) was a large-scale, highly interdisciplinary humanities initiative carried out at the Alan Turing Institute and the British Library, in partnership with the Universities of Cambridge, East Anglia and

Exeter, Queen Mary University of London and King’s College London, and funded by the UK Research and Innovation (UKRI) Strategic Priorities Fund. Bringing together a team of historians, data scientists, digital humanists, library professionals, computational linguists, research software engineers, urban geographers and curators, the project explored the extraordinary impact of technology on human lives in Britain’s industrial revolution. The team developed data-driven and open-source methods to analyse massive digitised historical collections of, for example, newspapers, maps and census returns, revealing new insights into the human, social and cultural consequences of the historical moment. Vital to the project’s conception was an approach to the creation and dissemination of its outputs that was in line with the collaborative, experimental, open and transparent way in which the research itself was conducted, and that the array of new datasets, tools, video, code and other digital resources developed as part of the project could be integrated for reuse by other researchers. The resulting publishing partnership between UoL Press and the project team for the open access *Living with Machines* book was therefore born out of this shared ethos and central areas of focus.

The book was conceived as an experimental project from the outset. While the book proposal underwent a relatively conventional development, peer review and approval process, a number of our early proposal conversations with the authors focused on the ‘non-standard’ aspects that the publication would feature, along with the adaptations in workflow required to enable them. These plans were confirmed at the project’s initial kick-off meeting held by the editorial and production team with the authors, and we agreed together that we would build three main areas for innovation into the book project design:

- Iterative publication
- Open peer review
- Multimedia and interactive content

It is important to note that the book is collectively authored by members of the Living with Machines team, comprising 19 authors in total with Ruth Ahnert, Emma Griffin and Jon Lawrence in editorial roles—a model of ‘distributed authorship’ (Adema et al. 2022) that, again, upholds the collaborative principles of this project. An authorship statement in the book’s front matter credits the range of contributions involved.

In terms of technical requirements, in 2023 we launched our own instance of the Manifold platform—an open source scholarly publishing platform created by the University of Minnesota Press with CUNY and Cast Iron Coding—after being awarded a Manifold Digital Services Support Grant. Manifold supports publication of enhanced, networked and media-rich editions of texts, which readers can annotate, highlight and otherwise engage with using interactive tools, providing us with the functionality we needed to facilitate the planned experiments for *Living with Machines*.

At the time of writing, we are at a midway stage of this project, working towards final publication of the version of record in 2026, and have completed a planned interim evaluation. It was important to build waypoints into the project to provide

opportunities to evaluate progress and reflect on key early learnings for incorporation into the later project stages. The remainder of this case study presents the results of our evaluation, with the aim of sharing our processes, opportunities and challenges, and lessons learned for use by other publishers and their collaborators working with innovative book formats and testing new publishing workflows.

3 | Publishing Processes

3.1 | Iterative Publication

A fundamental element of the book development process has been an iterative approach to publication and review of the draft materials, by which we mean taking a phased approach to the release, review and revision of chapters. Following the kick-off meeting, we supported the authors to develop a content plan, which we used to set and agree timelines for the submission of the chapters in three separate batches for peer review, effectively creating a four-phase publication process (Figure 1).

This process has a number of clear advantages for the project. First, it allows us to stagger the open peer review of the manuscript, making the workload for reviewers more manageable and enabling the authors to build iteratively on the review feedback given for the first batches of chapters in finalising the later chapters. Second, it builds in a number of opportunities to evaluate the success of the adapted editorial and production workflow being trialled in order to release early draft materials and facilitate open peer review, address any challenges and improve upon the process for subsequent phases. Finally, being able to publish early versions of the chapters openly on our Manifold instance for anyone to access while they were being reviewed has meant that readers could view the cutting-edge research in these chapters much sooner than if they had to wait for the full, final book to publish through more

traditional publishing routes, with clear benefits for research efficiency, reuse and wide dissemination (Ahnert, Griffin, Lawrence and the Living with Machines Team, 2024). Our platform analytics show that the early-version *Living with Machines* chapters published to date were the most-visited pages on our Manifold instance in the months in which the chapters were shared (5032 views and 558 active users by the end of 2024), which is indicative of the value in taking this approach. It helps to build a community with interest in the book leading up to publication. With a high number of current readers, it has been vital for us to make it clear on the platform page that the chapters are early, pre-review versions, and we are mindful of the potential challenges to the integrity of the research record if early materials continue to be used and cited without accommodating subsequent post-review changes (making it essential for us to provide citation guidance for readers).

3.2 | Open Peer Review

Running a form of collaborative, open peer review process was agreed at an early stage to be an important part of the book's development. Although the draft chapters would be released publicly, we decided not to hold a fully public peer review, but instead felt it would be more effective to solicit targeted feedback from an invited group of readers at each of the three submission phases, who waived their anonymity in advance of participation. We formed a panel of 10 peer reviewers selected from a longlist made up of the authors' and our own suggestions, including academic and professional readers specialising in history, nineteenth-century studies, digital humanities and cultural heritage research and practice, representing the book's intended audiences. The reviewers were sent a guidance document that we had prepared outlining the open review process, how to access the materials and provide feedback, and confirmation that their identities would be known to the authors. We also used this document to encourage a collegial and constructive review process and gave reviewers contact information for any concerns.

Technological innovation has been central to the effective running of our open peer review model. We are conducting the process via our Manifold instance to facilitate the transparent sharing of drafts and provision of commenting functionality for use by the reviewers. Using Manifold's 'reading group' feature, we set up a dedicated *Living with Machines* group for the authors and reviewers to access the draft chapters. The reviewers have been able to use the platform's social tools to annotate the chapters directly with their feedback, within the reading group space. The reviewers' identities and their comments are made visible to each other and the author team in real time and, importantly, those comments can be responded to by reviewers and the authors, thus enabling a live process of layering and dialogue. These tools also help to target the review feedback for easy reference for the authors as they carry out their revisions. A key part of the editorial workflow has been the analysis of the review comments following each review round, and creation of a high-level summary of the themes and concerns emerging from the review for the authors to address.

The feedback we have received from the authors and reviewers on the hands-on, cooperative nature of the open review process has so far been very positive. Limitations to acknowledge have included the inability of some reviewers to participate in every

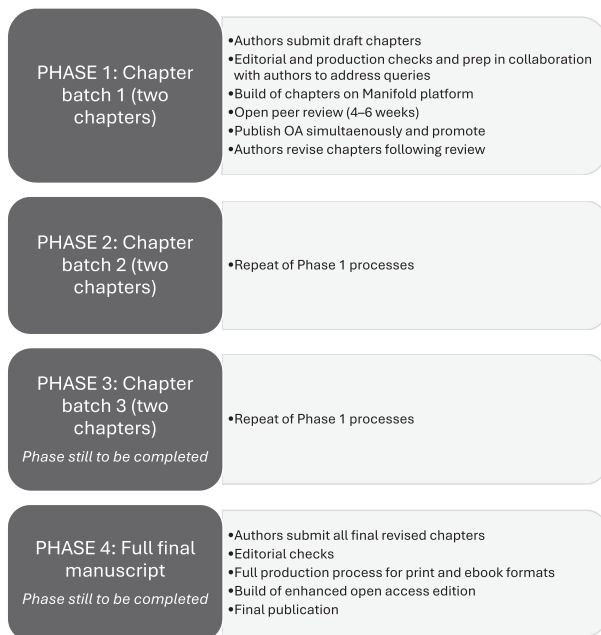


FIGURE 1 | Four-phase project design showing key publishing workflow stages.

round of this multi-stage process due to movement in submission timelines and resulting capacity issues. For us as publishers, receiving review comments as textual annotations without an accompanying report meant we have lacked the normally helpful summative feedback from reviewers. However, ultimately, by using the Manifold platform, this experiment with open review has turned what is typically a private evaluation into a more collaborative, open discussion, and the inclusion of diverse, crossdisciplinary perspectives on the review panel means that the chapters are being engaged with from multiple angles, allowing the authors to benefit from a breadth of early readings of their work.

3.3 | Multimedia and Interactive Content

The Living with Machines research project used a wide variety of digitised source materials and, in turn, generated a wealth of original outputs including large open datasets, interactive data visualisations, code repositories, video, digital notebooks and methods papers. The integration of these materials was an essential part of the vision for the book, in order to draw together and maximise the project's outputs and to make it easier for other researchers to access, reuse and build upon the research data and findings. The Manifold platform supports a range of media and file types, making it possible to embed multimedia and interactive content within the chapters themselves, create individual descriptive 'resource pages' for each item, and to network the book to other online sites where material is being held (in this case, GitHub) to produce a rich, enhanced open access edition. At the project planning stage, the authors provided high-level information on the resources available and we worked together to consider how best to structure, categorise and present the materials. We have also introduced an author training session into our workflow to help authors understand Manifold's functionality and how resources can be organised. The individual resource pages on Manifold also contain a large number of metadata fields and, while metadata creation requires work, this ensures that these pages are as descriptive for readers as possible. We produced a resource log template to support the authors with collating the metadata and provided ongoing guidance. The templates also helped to facilitate the metadata ingestion process when building the chapters on Manifold.

One specific challenge arose in using third-party data underpinning the data visualisations in one chapter, requiring a lengthy 9-week permission process to scrutinise and approve the use of the data before publishing it. As the same approvals process would need to be carried out before publishing the draft chapter and again to clear permission for any edits or revisions for the final publication, we made the decision to keep the draft chapter containing the data private while it was undergoing review to avoid the need to go through the approvals process twice and minimise hold-ups in the project timeline.

A final consideration in the case of interactive materials is how (and indeed whether) to include 'static' versions of these resources in the print and PDF editions of the final publication to stand in for the interactive versions. These decisions are being made on a case-by-case basis with the authors as they prepare

their revised chapters and resources in advance of the book's production in the project's fourth and final phase.

4 | Key Learnings and Conclusions

At this stage of the project, we are now in a position to share several key lessons learned:

- A closer and more collaborative way of working between editorial and production colleagues has been required. This is particularly notable in checking and preparing submitted material (in contrast with standard editorial and production processes, which are typically more separate and sequential), ensuring version control, and responsibilities for liaising with authors. We developed a joint process document for iterative publications to use as a reference guide for each project phase and for future similar initiatives. Although adapting and refining our workflows has taken time and some trial and error, this has actually also offered wider benefits for our work on more traditional books, as we have gained a better understanding of each other's editorial and production requirements and areas of concern.
- It has been exciting to embrace new forms of collaboration but also crucial to put proper structures in place around these collaborations to get the most out of them and to achieve key objectives. For us, this meant a higher degree of project planning in the early stages in comparison with more standard book projects, involving agreeing clear timelines, milestones and responsibilities—the project kick-off meeting was a useful part of this, as well as establishing the reviewer panel in plenty of time ahead of the first submission.
- The importance of creating a space for regular, open communication between collaborators and supporting the process with a suite of guidance documents and content planning templates cannot be overstated.
- As with any set of plans, things haven't always gone as expected, so it has been important to be adaptable, open to continuous learning and to find delight in unanticipated collaborations. For example, after publishing the first batch of early draft chapters, we received a question from a reader via social media on how to cite the pre-review chapters, which helped us to improve our guidance. The way the authors have used Manifold's tools to help with post-review revisions was also not something we anticipated and has been beneficial to see.
- Flexibility can be necessary when working with third parties whose processes may be aligned with more traditional modes of scholarly publishing, for example in the case of the approvals process for the use of data geared towards the publication of the version of record, described earlier.
- We have been extremely grateful to receive valuable review feedback in phases one and two of the project although not all of the panel left comments, and we're mindful of heavy academic workloads and the large commitment that we've asked the reviewers to make. Creating alternative or

additional means by which reviewers can participate in the project and engage with the material outside the publisher-mediated reading group structure is something we're open to exploring. For example, Fiormonte (2024) has reported on the usefulness of an online meeting with the authors as an open peer reviewer in facilitating 'an open process of co-construction'.

- Considerations around the promotion of the early versions of the chapters to readers have had to be made, working with marketing colleagues to modify approaches that are normally centred around the final publication. This was particularly the case as our systems are not set up for chapter-level metadata, so online data feeds could not be used to support discoverability for the phased publication of the individual draft chapters.
- Questions around the sustainability and resourcing of such projects remain. This project has required significant additional publishing labour, a specific range of expertise on the team and increased demands on the authors. Aside from the notable strengths of the approach for this particular project, we are conscious that this would still be a highly valuable publication for readers even if traditionally produced. We have therefore had to recognise that, as a small press, we will only be able to take on this scale of book project every 1–2 years and only where there are clearly defined aims and benefits in doing so.
- Lastly, long-term preservation of the reviewed chapters is an outstanding question for us. For research integrity reasons, and to acknowledge all intellectual contributions from reviewers (in line with the principles of the Living with Machines project as a whole), we feel it is important to retain the draft materials with annotations; however, they do not easily fall into the categories of preservation that we have for our other open access monographs at present.

As a next step we aim to build on what we've learned for the later stages of this book project and to apply these lessons to new experimental projects that we have underway, such as the collaborative review process we are carrying out for *Reframing Failure in Digital Scholarship* (Sichani and Donnay 2025). We also hope our reflections are useful to the wider scholarly publishing community and will continue to document and share project updates, for example via our [website](#) and through our work with the [Open Institutional Publishing Association](#). Ultimately, in experimenting with the publishing workflows and form of *Living with Machines* we have been able to explore the potential of reimagining the humanities monograph as a 'process' rather than a 'product'. By sharing our approach we hope to join others innovating in this space to offer models for furthering open research practices, and to provide similar options for researchers looking to reflect the collaborative, exploratory, multimedia and intertextual nature of humanities research in its published form.

Author Contributions

Emma Gallon: conceptualisation, project administration, writing – original draft preparation, writing – review and editing. **Jamie Bowman:** conceptualisation, project administration, writing – review and editing.

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Ethics Statement

The authors confirm that this article adheres to ethical standards in publication.

Conflicts of Interest

The authors are both current employees of the University of London Press. The authors otherwise declare no conflicts of interest.

Data Availability Statement

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

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