Library Publishing Workflows
Documentation and Reflection Tools

One of the goals of the Library Publishing Workflows project team is to encourage and enable members of the library publishing community to create their own publishing workflow documentation. The documentation process can be quite daunting, and it can be difficult to determine where to start with documentation. These tools will help library publishers of all sizes and experience levels create documentation and use it to reflect on and improve their practices.

As part of the grant project, we created and released a complete set of documentation for our twelve partner libraries. These tools have been informed by the work we did with those partner libraries, and the experience and feedback the participants gave throughout the project. We encourage you to read through that documentation to get a feel for what those institutions' documentation looks like, keeping in mind that yours may end up looking a bit different than any of the others.

We have created two types of tools: documentation tools and reflection tools. The documentation tools will guide you in the work of describing your current publishing workflow, while the reflection tools will help you use that documentation to reflect critically on your practice in a number of areas. These tools are included in this PDF, and are also available as copyable or downloadable Google Docs using the links below.

Documentation tools:

- Documenting Your Journal Publishing Workflow, a guide to creating detailed documentation about your journal publishing workflow. The output of this exercise is captured in a spreadsheet version of your workflow.
- Diagramming Your Journal Publishing Workflow, a guide to help you to create the type of graphic representation of your journal publishing workflow that we included in our partner documentation packets.

Reflection tools:

- Are Our Values Reflected in Our Workflow?, a tool for reflecting on your publishing program's values and how they are reflected in your publishing workflows
- Is Our Work Sustainable and Scalable?, a tool for reflecting on capacity and costs
- What Standards and Policies Are We Using?, a tool for identifying where standards and policies are enacted and where others could be added
- What Other Documentation Do We Need?, a tool for helping you identify where you may benefit from additional documentation

Additional resources:

- Workflow Documentation Spreadsheet Template, a spreadsheet-style template that can be used to document your workflow and complete the *Is our work sustainable and scalable?* and *What standards and policies are we using?* reflection exercises
- Detailed Workflow Template, a document-style template that can be used to document your workflow
- A single workflow template, or a multi-workflow template, for creating LPW-style workflow diagrams in diagrams.net
- A a shape library, to make LPW-style workflow diagrams in diagrams.net

We are grateful to the Institute of Museum and Library Services for its generous support of this project work, and to our project partners for willingly and excitedly participating in every step of this work with us.

About Library Publishing Workflows

Library Publishing Workflows (2019-2022) is a project to investigate, synchronize, and model a range of library publishing workflows. Library Publishing Coalition and Educopia Institute are working with 12 partner libraries to document these processes, with the goal of increasing the capacity of libraries to publish open access, peer-reviewed, scholarly journals. We hope the resulting workflow documentation will be an essential resource for library publishers in creating or evolving their own workflows, and will allow for peer learning and cross-comparison. This project was made possible in part by the Institute of Museum and Library Services LG-36-19-0133-19.

Documenting Your Journal Publishing Workflow

Documentation Tool

Phase 1: Preparation

Scoping & Goal Setting

There are lots of good reasons to develop formal workflow documentation: onboarding for new staff, providing options to new journals & editors, creating a guide or checklist for consistency, identifying ways to streamline or normalize across different workflows, analyzing diversity and equity amongst the people who work on publishing, communicating the work you do to colleagues & administration, and many others. Which use(s) are you most interested in? Keep those in mind throughout the process and routinely ask yourself if the documentation you're creating will help you achieve those goals.

Having a specific journal (or two) in mind will help you document the workflow accurately. Many libraries use more than one workflow, or at least have a few variations on a workflow. Which workflows do you want to model? Think through the journals you publish and try to pick out one or two representative journals for each of the workflows you wish to document.

Reviewing the existing [Library Publishing Workflows documentation] before embarking on this process (and returning throughout) can help you visualize what you want your documentation to look like, what it should cover, and what an appropriate scope may look like.

It can be really hard to keep your focus on just the workflows—these processes intersect with many other parts of the publishing program! One of our reflection tools asks, "[What Other Documentation Do We Need?](), " and we encourage you to make note of these needs in that tool as they arise.

Partners

This process is best done in collaboration. Because these workflows are often so embedded and labor obscured and distributed, it can be hard to remember and articulate all of the different steps. You will want to be in touch with other library publishing staff in your institution (if there are any) and have them weigh in either in the interview or asynchronously. Additionally, we also recommend having someone at another institution conduct the interview, and/or review the documentation at different points to ask clarification questions. The LPW participants have said that having a partner—particularly someone who is well versed in library publishing, but not familiar with their particular workflow—was really helpful.

Phase 2: Interview

We recommend recording an interview with a partner, but you can also answer these questions on your own if you're not able to work with a partner on this portion. The interviewer should feel comfortable asking for clarifications and follow-on questions at any point.

1. **Workflow Overview**

- Which workflow are we describing? (e.g. Full Service Journal Workflow, specific journal title)
- For this workflow, what is the basic unit of content that goes through this process?
- What is the starting point for the workflow? You can start with the state of the article or issue when the library first encounters the content, or include prior steps if useful.
    - E.g. reviewed article ready for typesetting, pre-submission article draft
- What is the end point/result of the workflow? In other words, when do you stop actively working with the unit of content?
    - e.g. PDF deposited in IR, journal issue published on OJS, content handed off to preservation system
- What are the high-level stages that make up the workflow? The number can vary based on the workflow, but we've found that 3-7 stages are common. Write down each of these stages.
    - (e.g. review, editing, copyediting, publication, dissemination)

2. **Describing Stages**

   Thinking about the first stage you identified, what are the tasks carried out during this stage? Provide the name and title of anyone involved in these tasks, as well as the systems/tools/technologies that are being used with each step.

   Repeat for each of the stages.

3. **Pain Points**
   What are the hardest parts of this workflow for you? (e.g. Where are mistakes often made? Which parts take the most time and attention?)

   Are there things that you would like to be doing as part of this workflow but aren't currently able to? What is preventing you from doing these?

   You can read our Pain Points blog series for examples and further discussions of pain points for library publishers.

Phase 3: Creating a Detailed Workflow

Using either the recording or the notes you took during the interview process, you can start to distill your answers into a clearer and more distinct set of steps that make up your workflow. You can use our spreadsheet template, our document-style template, or you can create one from scratch to meet your needs. If you're using the spreadsheet template, only focus on the 'Workflow' columns—you can come back and fill in the other columns using the assessment and reflection tools.

If you are planning to document more than one workflow, and you want to be able to diagram or directly compare them, you may want to revisit the stages you've created for each workflow. These direct comparisons will be much easier if you're able to create a list of stages that work for all of your workflows, even if some stages may not apply to all workflows.

This process is also an opportunity to return to the example journal(s) and make sure you haven't missed any steps. Reading this information back led to a lot of clarifications and additions from our partners.

As you are writing out the stages and steps in each stage, resist combining multiple steps together and try to break down each step to be as small as is useful. For example, while "Publishing Librarian sends articles to copyediting vendor" may seem complete and detailed to someone familiar with the workflow, it obscures a lot of important information. Are they downloaded, or does the vendor have access to the JMS? If downloaded, are they downloaded individually, or in bulk? What format are they in when they're sent to the vendor? Are they sent via email, a server, a shared Dropbox or Google Drive, or another way?

Review each of the steps and make sure that each includes all of the people (or automatic process) performing each step, as well as any technology used and relevant file formats. It's also helpful to make sure that each step uses an active verb. It's much clearer to say "Journal Editor copyedits article" than "Article is copyedited by Journal Editor," and it also better spotlights the labor being performed!

Diagramming Your Journal Publishing Workflow

Documentation Tool

Planning

Once you have finished [your initial documentation](), you can begin thinking about how you want to diagram your workflows. If you are diagramming more than one workflow, you may want to make sure that you're using the same stages for each workflow if you haven't already—this will make it easier to diagram them together and compare them more directly.

Diagrams are an opportunity to step back and visualize how your workflow functions. This means that you may benefit from leaving out some details and/or contingencies in order to make the diagram more readable. Before you start diagramming, think again about what you want to get out of this process and how you'll want to use the diagram. This will help you determine what information needs to be included in the diagram, and what information may be best left off the diagram.

Diagram Design Principles

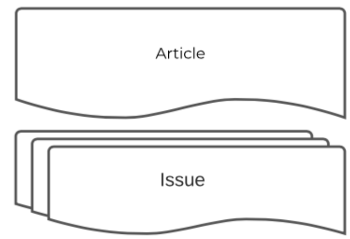
You may want to look at some of the [existing documentation]() and see what some of the completed diagrams look like, and how they differ from the Detailed Workflows. You may also benefit from reading through these explanations of the components of the diagram, which may help your decision-making process as you translate your documentation into a diagram format.

Each diagram represents the process an article or issue travels through from the perspective of the library. The workflow begins at the top of the page and works its way down to the bottom.

Symbols

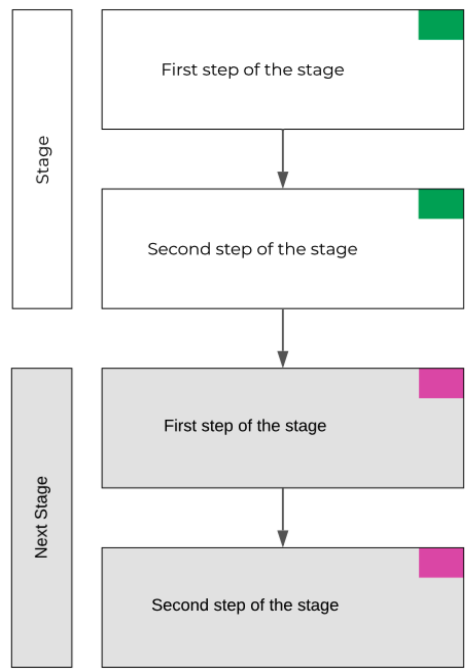
Articles/Issues

With a few exceptions, our workflows track either an article or an issue as it travels through the workflow. We represented these items with document symbols—rectangles with curved bottoms. One of these symbols represents a single article, while three overlapping symbols represent an issue. The rest of the shapes in the diagram—horizontal rectangles—represent a step performed in the workflow.



Stages

Through the documentation process, we identified a set of high level stages that make up the workflow. In the diagram, these stages are highlighted in two ways. First, a vertical bar with the name of the stage is placed along the left side of the diagram. Second, all the steps comprising each stage are the same color—either white or gray—and each stage alternates between colors, making it easier to distinguish where each stage starts and stops.



Steps

Each step is a gray or white horizontal rectangle with one or more smaller rectangles on the right side. The rectangle(s) on the right side allow the reader to see, at a glance, who is responsible for each step of the process.

Software

There are quite a few software options for diagramming, and we've previously published a blog post detailing some of the options. We recommend using either the free and open source diagrams.net or a pro version of Lucidchart, but if there's something else you're more comfortable with, you should feel free to use that. Below we include instructions on using diagrams.net. If you'd like to use Lucidchart, you can import the templates linked below.

Diagrams.net

Diagrams.net (previously known as draw.io) is free and open source software that can either run from your desktop or in your browser. You can save your files locally on your computer, or save to Google Drive, Dropbox, OneDrive, or GitHub, making collaboration easier.

We've made three resources available—a template for a single workflow, a template for 5 parallel workflows, and a shape library for you to be able to add pre-made shapes.

Importing a template

- For the in-browser version, click the link, then at the top, select 'Open with' and select diagrams.net. If this is your first time, you'll need to authorize Google Drive access to diagrams.net. Then, click File > Make a Copy and select the location you'd like. Alternatively, you can click on the download button in the top right corner and save it to your machine, then go to diagrams.net and click File > Import from > Device and upload the file.
- For the desktop version, click on the link above, then can click on the download button in the top right corner and save it to your machine. Once you've installed the desktop program, open it and click File > Import and upload the file.

Importing a shape library

Click on the link above, then click on the download button in the top right corner and save the XML file to your machine.

- For the in-browser version, go to diagrams.net and click File > Import From > Device and upload the XML file. The shapes should then be available to drag and drop from the left sidebar.
- For the desktop version, open the program and click File > Open Library and upload the XML file. The shapes should then be available to drag and drop from the left sidebar.

Editing the Steps

In the diagramming software, each step consists of three layers. The furthest 'back' layer is a colored box—either white or gray. The middle layer(s) are the colored personnel boxes on the right side. The 'front' layer is a rectangular border and the text. This means that you may need to change the ordering to add or edit the personnel boxes. Once you've made your edits, you will want to put the layers back in this order—otherwise the colored personnel boxes can cover up the border.

If you'd like to create a diagram from scratch, make sure your grid is set to 12 pt (File > Page Setup) so that the shape library lines up with the grid.

We also recommend spending a bit of time looking at the diagrams.net documentation for tips and instructions on how to use the platform.

Color Palette

The colors representing personnel were selected to be most accessible for readers with color blindness or other visual impairments. Our palette consists of 6 personnel colors and two different backgrounds. If you need more than 6 personnel colors, we recommend finding a set of colors that work for you using accessiblepalette.com or a similar resource.

Personnel colors
Green - #00aa55
Blue - #009fd4
Pink - #d252b2
Slate Gray - #708090
Orange - #d47500
Red - #cf000f

Background colors
White - #ffffff
Gray - #e5e5e5

LIBRARY PUBLISHING WORKFLOWS

Are Our Values Reflected in Our Workflow?

Reflection Tool

Make a copy of this document and use it as a worksheet to find alignment between your values and your workflow.

Gather Existing Statements

Paste your *library's* mission and values, including the formal mission statement, DEI statements, or other values publicly expressed in the space below.
Paste in your *publishing program*'s mission and values, including the formal mission statement, DEI statements, or other values publicly expressed (if any exist). You can also write down informal values or mission statements that have been discussed for the program. If you determine you need to create or revise your mission or values statements, you can make a note of this in the What Other Documentation Do We Need? tool.
Optional: Review the journals published by your program to see if they have expressed any ethics or values and add in any that are relevant at the programmatic level.
Optional: Take a moment to review one or more of the resources listed below. Do you see any values or principles that you would like to incorporate into your program? Paste them into the document as well.

Reflection Questions

Using your completed workflow documentation, your mission/vision/values statements, and additional values and principles you'd like to include, reflect on the following questions:

- Do the mission/vision/values statements accurately reflect your current aspirations for your publishing program? Is there anything missing?
- What impact do you want your program to have in your library? On campus? In the broader publishing ecosystem?
- How do these roles contribute to the impact your program is trying to make? Looking at each of the stages, are there material ways your workflow(s) are aiding in this impact? Are there areas where the workflow could do more to achieve those goals?
- How is this workflow supporting the development of expertise (e.g. What skills/competencies are being developed and by whom)? How might you change your workflow to better develop expertise or capacity in areas most aligned with your values?
- Are the technologies and platforms implicated in the workflow in line with the stated mission/vision/values?
- Beyond the workflow, do budget and staffing models align with these goals?
- After answering these questions and reviewing additional resources, do you think there are changes that need to be made to your workflow? What about your mission/values statements?

Additional Resources

- Library Publishing Coalition's *An Ethical Framework for Library Publishing*
- Next Generation Library Publishing Project's *FOREST Framework for Values-Driven Scholarly Communication*
- Next Generation Library Publishing Project's *Values and Principles Framework and Assessment Checklist*
- Humetrics HSS
- Principles of Open Scholarly Infrastructure
- Force11's *The Fair Data Principles*
- CORETrust Seal
- Next Generation Library Publishing's *Living Our Values and Principles: Annotated Bibliography*

Is Our Work Sustainable and Scalable?

Reflection Tool

Using columns E-H in the [provided template](), walk through each step in your workflow and answer the following questions.

- How much staff time is typically required for this step?
- Are there any direct costs[1] associated with this step?
- What specialized skills or training are required for this step?
- What technologies are necessary for this step?
- What external services are necessary for this step?

Add up the numbers to learn how much time and money you're investing in each article/issue. *Keep in mind that this tool is focused on the costs associated with the production of an individual article or issue, and does not include overhead costs, such as the cost of platform hosting and staff salaries, or work like editor onboarding or staff training.*

Once you've filled out the columns, reflect on the following questions regarding the sustainability of your workflow and publishing program. Keep in mind that since this is only focused on ongoing production workflows, there is other work done by publishers that is not included. This will be captured on the tool What Other Documentation Do We Need?

1. How many articles/issues could you publish with this workflow? How many additional journals could you take on before you would need additional staffing or resources?
2. If you hit a ceiling, what options do you have (e.g. adding staff or funding, consider alternate workflow models, reducing service levels, declining

[1] Direct costs are financial costs that can be traced directly to the publishing of an article or issue. This may include vendors or freelance copyeditors and typesetters, honoraria, or individual DOIs. This would not include things like salary, software licensing costs, etc.

additional journals, using a vendor, doing more work in-house)? Which best align with your goals and mission?

3. Are there per-journal direct costs associated with publishing additional titles (e.g. per-journal hosting costs, vendor costs)?
4. What are the activities that are the most expensive?
5. For the library staff involved, how difficult is it for them to find the time to do these things? What are the other things that are competing for their time?
6. What are your biggest vulnerabilities to staff turnover? Do you have a succession plan?
7. What segments of the workflow are most vulnerable to disruptions (e.g. competing priorities in the library, technology issues or migration)?
8. How is your program currently juggling this workflow work with other types of work, and how might that other work be impacted by this workflow changing or publishing scaling up or down.

What Standards and Policies Are We Using?

Reflection Tool

Journals produced by library publishers employ a range of standards and policies, depending on their program's goals, library policies and practices, disciplinary norms, and editor preferences. Recognizing that, we have identified a range of areas where policies and standards are often implemented and needed, and provided some common examples for most.

This reflection exercise has two parts: The first part attempts to note areas in the workflow where standards and policies may be enacted, checked, or enforced. The second part is a list of standards, criteria, and policy advice that are commonly used by library publishers.

Standards and Policies in Publishing Workflow Stages

We recommend using the list below to parse through your workflow to determine where adherence to the standards and policies is being enacted or checked, and identify the responsible party for each. We have also included links to some of the relevant common standards and policies used for each step. You can use columns I-K in the provided template.

- Submission
    - Author agreement
    - Rights/license statement
        - Creative Commons
    - DOI links in references
        - Crossref
    - Author identification
        - ORCID

- Review

    - Guidelines for editors
        - COPE Editing peer reviews guidelines
        - COPE Text recycling guidelines for editors
    - Guidelines for peer reviewers
        - COPE Ethical guidelines for peer reviewers
- Production
    - Accessibility
        - Web Content Accessibility Guidelines (WCAG)
- Publication
    - Content formatting
        - ANSI/NISO Z39.96-2021, JATS: Journal Article Tag Suite
    - Metadata quality control
        - Indexer-specific standards
        - Institutional repository
        - PREMIS
- Post-Publication
    - Correction/retraction
        - Noting changes to publication
        - COPE Retraction guidelines
        - PKP Corrections & Retraction Guidelines
    - Local cataloging

Commonly Used Standards and Policies

Below is a list of standards, criteria, and policy advice commonly employed by journals and publishing programs. You may use this list as a starting point for developing policies yourself, or as a way to find widely used standards you may want to employ in your publishing program.

Publisher Standards and Practices
Open Access Scholarly Publishing Association (OASPA) Membership Criteria
NISO RP-24-2019 Transfer Code of Practice
Memorandum of Understanding with journal editors

Editorial Standards and Practices
PKP Journal Policies and Workflows Documentation
COPE Editorial board participation guidelines
COPE Principles of Transparency and Best Practice in Scholarly Publishing
COPE A short guide to ethical editing for new editors
COPE Editing peer reviews guidelines
COPE Text recycling guidelines for editors
COPE Ethical guidelines for peer reviewers

COPE Retraction guidelines
PKP Corrections & Retraction Guidelines

Identification Standards and Practices
ISSN Manual
Crossref
ORCID

Copyright and Licensing Standards and Practices
Creative Commons

Indexing Standards and Practices
DOAJ Criteria
Discipline/indexer specific examples:

- PubMed Central
- Google Scholar
- Scopus
- Web of Science

Publication Format & Accessibility Standards and Practices
Web Content Accessibility Guidelines (WCAG)
ANSI/NISO Z39.96-2021, JATS: Journal Article Tag Suite

Miscellaneous Standards and Practices
Committee on Publication Ethics (COPE) Guidelines
Plan S Principles and Implementation
Preservation

- PREMIS
- Keepers Registry

Discipline-specific requirements

- (e.g. registering clinical trials, informed consent, IRB)

Funder-specific requirements

What Other Documentation Do We Need?

Reflection Tool

Publishing workflows are only one part of the work that goes into publishing a journal. Our focus in the Workflows project is on the routine, ongoing work of regular publication, but we recognize that other types of work are very closely tied to it, and that it's impossible to discuss workflows in a vacuum. Since documentation may be needed for other types of work, as well, we wanted to provide a lightweight tool to support steps in that direction for those who are so inclined.

Documentation needed

We recognize that creating workflow documentation is likely to spark ideas about other types of documentation that are needed for your program. This section is a parking lot for those ideas, so that you can come back to them when you are done with your workflow documentation.

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Reflection questions

These questions are intended to help you identify, based on your needs and goals, other pieces of the process that need to be documented, or to help you pull together existing pieces of documentation.

If you have existing documentation, when was it last updated, and who maintains it?

What ongoing maintenance and technical support is needed for continued publication?

What does the journal onboarding process look like?

What happens when journals change or get new editors?

What does it look like when a journal stops publishing? And who is responsible for that decision and work?

What are the basic things that people in the publishing unit need to know? What does training look like?

Do you have any kind of regular assessment of journals or the publishing program as a whole?

What other work does the library publishing unit do that is not reflected in the workflow?

How do non-publishing unit staff, including interns or practicum students, intersect with your publishing workflows? What is their onboarding process and/or set of responsibilities? How are they rewarded for their labor?

Does your workflow or its ongoing assessment include reflection on diversity, equity, and inclusion in terms of people and content (as appropriate)?