Title: Process Mapping as Organizational Assessment in Academic Libraries

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Abstract

Purpose: This paper seeks to describe the value of process mapping to libraries as a first step in promoting a culture of organizational assessment. In addition, this paper offers a case study of the University of Michigan Library's experience in building up a process mapping skill set and the workflow improvements resulting from these efforts.

Design/methodology/approach: This case study is a description and assessment of a program to train library employees on process mapping.

Findings: Process mapping in library settings empowers librarians and staff to identify and implement elements for improvements in routine work. When given the tools to assess processes, employees at the University of Michigan made several such improvements.

Practical Implications: While library staff tend not to be familiar with process mapping, these skills are critical for retaining institutional knowledge, training staff, and identifying areas for improvement in common and rarely used workflows alike.

Originality/value: Process improvements were identified and implemented at the University of Michigan Library when our staff mapped the processes of their daily work.

Keywords: process mapping, organizational assessment, culture of assessment, organizational effectiveness, evidence-based management, workflow analysis

Paper type: Case study

Introduction

The University of Michigan Library successfully experimented with integrating process mapping as a method of organizational assessment in the spring of 2014. A few staff members, the authors of this paper included, received in-depth training on facilitating process mapping for groups. We then delivered both a series of short workshops open to the entire library community, as well as an intensive small group mapping activity to a single department. The

following paper discusses our experience organizing and enabling colleagues in their process mapping endeavors and summarizes the value of and lessons learned from this experience.

Process mapping is an exercise to identify the major steps and decisions in a routine workflow in visual form. It tracks the flow of information, materials, and documents involved in the process and clarifies tasks, decisions, and actions that are needed at particular points in time. Moreover, process maps depict the roles of a variety of stakeholders who impact or act in the process.

Process maps are inherently visual. Workflows to be analyzed can be mapped in a number of ways but two common motifs are the cross-functional "swim lane" maps and the value-added maps, each of which uses a particular lens to assess the process. Cross-functional maps (Figure 1) organize the process by role. These maps allow individuals in a particular role to see clearly the tasks, activities, decisions and information for which they are responsible. Value-added maps organize information around when and how value is added to the department or organization through particular steps (Savory and Olson, 2001). The use of a particular style of map depends on the organization's needs and the processes they plan to map.

Because process maps visually highlight delays and breakdowns in a process, they display information about workflows in a format that enables managers to make decisions based on evidence. Process maps are also helpful for cross-departmental communication, especially when the map provides enough information to understand a workflow without too many details.

While organizations derive value from finished process maps, they also derive value from the practice of process mapping, which creates a shared understanding of workflows, clarifies responsibilities of actors and other more tangential stakeholders, and enables training and education of new team members through passing on institutional knowledge. Process mapping is also a critical first step in process improvement; before one can improve a process, it is important to deeply understand how it works.

There are several ways to go about mapping work processes, and which method is chosen depends on the organization's needs and goals for mapping, the staffing availability, and participants' willingness to invest energy into the mapping efforts. In general, there are two ways to map processes: have a dedicated mapping team conduct iterative and extensive interviews, compile the map and revisit stakeholders to revise and confirm their map's correctness (Tuai, 2006); or gather the main actors in one room and intensively collaborate on creating the process map (Fülscher and Powell, 1999). In the case presented in this paper, we involved critical stakeholders for intensive multi-hour mapping sessions.

Literature Review

After World War II, Japanese manufacturers spurred a kind of manufacturing revolution: one of intense focus on quality (Cole, 1999). As Cole describes, this focus in turn revolutionized managerial philosophies over the subsequent decades leading to a number of approaches including Total Quality Management, Lean practices, Six Sigma, and adhering to the ISO 9000 standard. All of these philosophies sought to produce high quality goods and services, and each involve a series of tools and practices to help them achieve those goals.

Process mapping is one of these tools, now commonly used in many business sectors, to enable process, and more broadly organizational, assessment. From hospital work (Savory and Olson, 2001) to the insurance industry (Fülscher and Powell, 1999), industries of all stripes are evaluating their work processes by mapping them. Indeed, Savory and Olson describe how mapping workflows is a natural and useful first step in a broader organizational assessment campaign.

Huber (2011), a consultant with extensive experience in applying Lean workflow principles in library environments, makes the case for adopting both the philosophy of and practical steps for improving service models in libraries. In an appendix to his book, he lists a number of Lean practices libraries can use to improve operations, several of which use the principles of or are predicated on process mapping. These include value stream mapping, gap analyses, and service chain mapping (Huber, 2011).

Libraries, however, have not traditionally utilized process mapping techniques in any widespread or universal way. In the few documented cases where libraries *have* engaged with process mapping, departments that are heavily process-oriented are leading the way. Nozero and Vaughan (2000) discuss how the interlibrary loan unit of the University of Nevada, Las Vegas library improved their ILL processes successfully, by recording fewer delays and eliminating backlogs entirely.

Kress (2008) describes how the University of Chicago Joseph Regenstein Library eliminated inefficiencies and improved shelving turnaround times from two weeks to two days after marrying Lean manufacturing principles with a process mapping project. By identifying the steps involved in their re-shelving process and mapping those steps, the team was able to identify bottlenecks and generate ideas for revising and improving those steps. For example, the team decided to switch to a mode of fully processing a book before starting the next instead of processing books in staged batches, leading to the impressive reductions in turnaround times.

The University of Notre Dame's electronic reserves unit used process mapping to identify where they provide the most value to their patron community. The success criteria laid out for this particular project were less about reducing bottlenecks and breakdowns and more about improving quality of life and goodwill of staff members and "quick implementation" of any improvements to the processes. In reflecting on the library's process mapping experience, Tuai suggests that this work can help many types of organizations, including libraries; not only because it identifies areas for improvements but also because it serves to remind staff members involved in processes of the larger structure of work in which they are involved.

What literature there is on process mapping in library environments does share several commonalities. The literature identifies process mapping as part of a suite of strategies enabling organizational assessment, development, and transparency (Holloway, 2004; Klotz et al., 2008). In addition to discussing the value of process mapping, many of these articles outline the factors that enabled process mapping success at their institutions. Success criteria can be divided into several main categories: (1) attributes of the process chosen, (2) attributes of the participants (loosely defined), and (3) the mapping approach taken.

The process must be appropriately scoped for mapping to be successful, and the process chosen must be one that represents strategic importance for the library (Saad and Siha, 2008). Participants and stakeholders must include the right mix of people: including those who are involved and critical to the process being mapped and assessed. This group needs to be committed to the common goal of assessing and improving the process and it helps if there is a level of flexibility, thoughtfulness, and collaborative spirit (Fülscher and Powell, 1999; Kress, 2008; Nozero and Vaughan, 2000). Both Kress and Fülscher and Powell in particular describe insightful examples of how a willingness to listen and reflect on others' contribution in the time away from mapping can lead to critical breakthroughs in process improvement. Support from managers who may not be directly involved in mapping is also important to the sustainability of any mapping and subsequent assessment projects (Nozero and Vaughan, 2000; Saad and Siha, 2008). Finally, the approach organizations take on process mapping can impact their success. Nozero and Vaughan discuss the importance of focusing on mapping processes first before concentrating on process improvement activities. Siha and Saad also conclude that success is more likely if evaluation criteria are thoughtfully documented before process mapping work begins, and if the organization commits to continual assessment and improvement over time. Both Nozero and Vaughan and Siha and Saad describe how communications around the mapping project and any improvements to be made must be robust and clear for success to take hold.

More broadly, Phipps, in a 2001 article about effecting cultural change in libraries, suggests that to successfully evaluate and improve library services to patrons, the organization has to listen to the "voice" of four library elements: customers, staff, the processes of the work, and the organization as a whole. That she elevates "process" by naming it one of the four voices points to just how critical processes are to program and organizational assessment. Moreover, Phipps asserts that connecting staff to the work of process improvement helps organizations pay attention to that process voice. By listening to this voice, and using process mapping as a springboard for process improvement, libraries can bring about broader cultural change as staff learn to think critically about the processes in which they are involved (Phipps, 2001).

Ultimately, process mapping is a common business practice that enables organizational analysis, facilitates more effective communication, and allows for workflow improvement. With a few tweaks to fit library culture, it can be an excellent tool for organizational assessment and improvement in the library. We will show in the next section that library employees can be empowered to conduct process analyses by learning to understand and create process maps; and through this work, lay the groundwork for having an eye for continual process assessment.

Best Practices for Process Mapping

Business process mapping as it is practiced today evolved from manufacturing and engineering workflow improvement practices. Process mapping is an essential analytical tool in the Lean production methods and techniques, which seeks to reduce waste of human, monetary, and physical resources in manufacturing and office environments.

Flowcharts are the heart of business process mapping. A flowchart where roles are designated indicates a cross-functional or swim lane process map. Flowcharts consist of shapes representing different elements of a workflow. For instance, rectangles represent actions, diamonds represent decision points, and rectangles with wavy bases represent documents (Figure 2). Many additional shape types represent various workflow elements. Each shape includes a few words describing the element, and is connected to other shapes by a line and arrow representing the sequence of events. Action rectangles are generally the most frequently used shape.

Best practices indicate that the text in an action should be less than five words total to keep the map readable and manageable. Included within these five words should be a verb (the action itself), the object (the item receiving the action), and an actor (the role fulfilling the action). The actor should be a generic role or position rather than a named individual so when peoples' roles and responsibilities shift, the map remains current. An action rectangle might include, for instance, "Patron returns book" or "Acquisitions places priority order."

A final best practice for process mapping is to always map the process as is first before documenting what could be. Successful organizational assessment using process mapping lies in analyzing the current state while the map is being created and after the map is finished. This kind of analysis can generate wonderful process improvements at both small scales, often identified during the current state mapping activities, and at large structural scales more easily identified while looking at the finished current state. Because assessment is built into the process mapping process, however it is an excellent entry-level and tangible method of process improvement for libraries.

Case Study: University of Michigan Library

The University of Michigan Library recently sought to gain in-house expertise in process mapping for several reasons, but mainly because we had an immediate need to retain the institutional knowledge of several long-time staff members approaching retirement. Three library staff members, including the authors on this paper, attended a two-day professional development session to learn about and practice basic process mapping techniques. To augment the value of this workshop to the library, these staff members designed a variety of activities tailoring the tool of process mapping to the needs and culture of the library.

The authors facilitated a series of learning experiences in process mapping. We had two institutional goals for tailored process mapping workshops back at the library. We hoped that after participating in our process mapping sessions, library staff would regularly think critically about work processes they are involved with in a broad sense. Process mapping is designed to prompt questions that enable reflection and assessment of the workflows people touch: Who is involved in this process? Are all the documents, files, and data readily available to those who need it when they need it? Where do we find breakdowns and challenges in this workflow? Could we improve how this works in the library? In addition, we wanted staff members who participated in our session to have some tangible, hands-on experience making maps so they would feel empowered to return to their departments and map their critical processes as needed.

Library Process Mapping Basics

The first step in bringing process mapping to the library was the design and delivery of a one-shot introductory workshop. While the name of the discipline is properly "Business Process Mapping," we received feedback that the word "business" was a barrier to library staff members' attendance. This was the first of many indications that we would need to adjust our practices to library culture and demonstrate the value of this business practice for our work in the library.

We composed several criteria for success for our introductory workshop. Our learning objectives were to (1) understand when and why to use process maps, (2) engage with the basic process mapping symbols, and (3) be prepared to create process maps on your own. We designed our session specifically to address these objectives.

The workshop began with an introductory overview of process mapping, focusing on how and why process maps are used, and the basics of symbols and layouts. We arranged for the introduction to take just about ten minutes so that the bulk of the time could be spent engaging with these symbols and structures.

To bolster the learning retention of participants, we designed a hands-on process mapping activity around familiar things that happen in libraries. Before explaining this task too deeply, we (the workshop facilitators) demonstrated the activity to the entire group. Then, we identified four user-oriented processes that would be well-known to most library employees: checking out a book, reserving a study room, requesting the purchase of a book, and requesting an instruction session. We divided participants into groups and asked each group to pick one of four sample library processes to map. In groups, participants first individually brainstormed the steps involved for one minute and wrote these steps on sticky notes. Next, each group shared their steps internally for their chosen process and began to order steps in sequence through, at times quite boisterous, group discussion and decision-making. Once the steps were ordered on the wall, the group drew additional elements, arrows, start and end points of the process, decision points, etc., of the process map around them.

After a few minutes of mapping, we asked groups to pause with an unfinished map and walk around the room to see how others had mapped the processes they had chosen. In this part of the workshop, participants noticed how different mixtures of group members could produce vastly different maps, even on the same process and even for the ostensibly simple processes we provided. Finally, we spent a few minutes on a large group discussion to break-down the experience and share how library staff members might use these approaches and skills in their work, what challenges they may face in doing so, and how they could benefit if they began to map some processes. Table 1 documents the flow of this Process Mapping Basics workshop.

In a feedback form, we learned that most respondents (27 of 29) agreed that the session "enhanced my understanding of how and when to use process mapping," and most (26 of 29) also agreed that they were more familiar with process mapping symbols because of the session. One respondent told us, "I came away feeling like I could get started doing process mapping right away and relatively successfully."

Our feedback survey also allowed us to learn some lessons both about running the workshop and the concept of 'process mapping as assessment' resonate with our staff. Because our library's physical space is separated on three distinct, though relatively close, campuses, we offered our workshop at each location. The sessions were all heavily attended with the exception of one, and in retrospect, we realized we could have done more targeted promotion of the workshop at that site explaining how this workshop applied to the work done in that location.

Many participants reported that the hands-on component really helped participants build concrete skills around mapping. We also learned that by demonstrating the participant-involved activity first, we gave people confidence and an understanding of one way to begin a process mapping brainstorm. In addition, the group mapping activity made participants realize how easily pitfalls and breakdowns can arise in potentially contentious mapping work. This is not to say that all process mapping will devolve into argument, but the mini-mapping made real for people how difficult consensus can be.

While participants did not comment specifically on the element of reviewing of other groups' maps, we observed in the session itself that people would openly remark with surprise how varied maps on the same process could be. In our larger group discussion, we learned that the people comprising each small group heavily influenced the resulting map. For example, many groups chose to map "a patron checking out a book." Groups including staff members working heavily with electronic resources mapped whole process offshoots regarding e-books, which were neglected in the other maps. This element of peer review hit home the idea that including particular combinations of stakeholders in mapping activities impacts what is produced and how the process is accomplished.

As a result of this introductory session, several library employees began to implement basic process mapping techniques for assessment purposes in their units and departments. One library employee applied the methods learned in our workshop to assess a work process with a breakdown involving the placement of paper "to do" sheets for student workers on a desk. She discovered by mapping out the process that students were confused about which physical piles of papers on a desk corresponded to what actions they must take. After creating a process map and realizing this breakdown, our participant took steps to reorganize the paper piles and discuss the work process with the students. As a result, students are now less confused and more efficient in completing their tasks.

Participants also offered suggestions for future sessions we could organize. Some requested follow-up sessions on process mapping software, especially Visio, and others requested more opportunities to practice process mapping in the teams they work with regularly. One comment asked, "I'd like to see a follow-up session where we either work on making one for a process we are familiar with, or 'proof' ones we've created. i.e. a little more help in breaking down a more complex procedure." We had anticipated this wonderful suggestion and had already organized such a follow-up with our intensive boot camp, described below.

Process Mapping Boot Camp

After the one hour process mapping basics workshop, we created a process mapping "boot camp" that would give one department a deeper experience in creating a complete map of a single process. The boot camp took place in longer, more intensive sessions over several weeks but was facilitated by two of the library staff who ran the original process mapping workshop. Our goal for this boot camp was to end with a near-finished process map of a single workflow within the department.

The application for boot camps was designed to prompt deep thinking on the goals and scope for the process map so that we could use our time together efficiently. We did not want to spend the bulk of time debating whether something was or was not a part of the process, and so we required answers to the following questions on the application:

- Please give a brief description of the process to be mapped.
- What are your goals for mapping this process?
- What is the audience for the finished map?
- Briefly describe the scope of the process to be mapped, including start point, end point, and major activities:
- Has this process been mapped or documented previously? Please describe briefly.
- If any documents related to this process (including previous maps or workflow diagrams) are readily available, please share them

The application also asked applicants to identify a team captain for communication with the facilitators. This made the process of organizing the meetings, giving homework, and receiving continuous feedback quite streamlined. Applicants also listed the names of people who should participate in the boot camp, though we suggested four to seven participants as the optimal size. Finally, we indicated that attendees needed a basic understanding of process map symbols, at the level attained in the one-shot Library Process Mapping Basics workshop so we could hit the ground mapping.

Special Collections Process Mapping Boot Camp

The University of Michigan Library Special Collections Library participated as our inaugural process mapping boot camp team. The head of the Special Collections department, Martha Conway, wished to map and thereby clarify the process for receiving gifts-in-kind because she felt there needed to be greater understanding of this process across not only her team but with our Library Development staff as well. While Conway took the lead as team captain, a new Associate Director, Athena Jackson, had recently joined the library and was tasked with absorbing as much as possible so as to lead further mapping activities internally without facilitators.

The scope of the Special Collections process mapping boot camp, defined narrowly, was to cover the process for accepting and acknowledging gifts from the time a donor offers a gift to the library to the point at which the donor is officially thanked.

The team assembled interact in the creation of the process map included the head of the Special Collections Library (Conway), an associate director (Jackson), two curators, and a development officer. We agree with Nozero and Vaughn that having the correct people in the room is essential to successful process mapping and found that this was the case in this experience as well. The assembled team benefitted from a diversity of viewpoints, including interdepartmental perspectives. For example, the colleague from the development department was able to advocate for the needs dictated by University policy and federal tax law. The team was also fortunate to have a range of experiences represented from the Special Collections unit: the associate director and one of the curators were each relatively new to the organization, and by virtue of that unfamiliarity were able to ask questions that illuminated the reasoning (or lack thereof) behind certain steps in the workflow.

These five individuals plus the two facilitators each invested nine hours total in five in-person sessions (and several hours outside of meetings) over four weeks to collaboratively create a process map illustrating the gifts-in-kind process (Table 2).

The first session was a one-hour refresher on the basics of process mapping (similar to the introductory workshop described above). This session covered techniques for collaborative process mapping, including a color-coded system for marking areas of the map in need of further examination: red dots for breakdowns in the process, blue dots for subprocesses that were out of scope at the current point, green dots for opportunities for improvement, orange dots for an area where consultations with other stakeholders were needed, and yellow dots for disagreements. Yellow dots, a group favorite once mapping discussions began, were known as "parking lots" because they served to park disagreements and enable the group to simply move on to another question.

The following week, we facilitated a second session where we dove in to hands-on process mapping for three hours. Using a swim-lane model and naming the main actors as Donor, Curator, Development Officer, and Director, the team started writing steps on the process on sticky notes, hewing to a verb-actor-object pattern, e.g. "Curator sends Gift Agreement to Donor." The sticky notes were then arranged on a large white board, with dry erase marker connections. A week after the second session, we hosted a third in-depth mapping session for two more hours.

Our initial expectation was that boot camp participants would develop Microsoft Visio skills, a software program that enables users to create maps, workflows and other charts and graphics, in one of the meetings. Because of this, we structured our fourth meeting to include migrating the map from the first few meetings into the software program. The mapping process effort, however, turned out to be a greater time investment than anticipated by the Special Collections staff. Thus, while we did spend a little time learning to use Microsoft Visio in our fourth session, the facilitators had already transformed the complicated sticky note and dry erase board draft into a clean copy of a process map in Visio for review at this session. The concept of the map was more important to success of the boot camp than the ability to translate it to a software program, so we stuck to our main goal that staff deeply understand how maps are created by teamwork, iterative discussions, and many disagreements and resolutions rather than impose Visio work where there was not time, and this turned out to be greatly appreciated by the participants.

In this fourth session, facilitators presented the clean Visio map to the team, and the team focused on refining, expanding, and clarifying the steps in the workflow. In this session, participants had completed homework tasks of reading background material and clarifying points from the initial mapping-intensive session. Using this additional information, a facilitated discussion reached resolution of points of disagreement on several "parking lots." Participants agreed that a root source of conflict was the tension between mapping the current state and a desire to reach the ideal state. For instance, both curators and the development officer agree that it would be ideal for curators to send a notification to the development officer at the beginning of any donor interaction. However, curators interact with users more organically in a relationship that may or may not end in a gift to the library, so the reality of the situation will never match up to the ideal state.

The fifth and final session of boot camp went more quickly than expected, with just a few final tweaks to the near-finished map of the gift-in-kind process. We attribute this quick resolution to the helpful nature of using yellow-dot parking lots, allowing time for reflection, and identifying

underlying tensions around mapping as-is processes and future processes. Because we knew from the literature that management needed to be, at a minimum, supportive of the mapping activities, our final map was presented to senior administrators in Special Collections and Development in a debriefing session. This meeting ended up centering on explaining to the senior administrators how the boot camp was structured and what the process was to produce the map. This check-in let us stay on management's radar and allowed us to clarify any unanswered questions by them. In the future, such a session could be used to bolster support from management for any process improvements derived from these mapping activities.

In reflecting on the boot camp process, we realized we needed to address two issues which surfaced from the start. Even in the first hands-on session, different perspectives about workflow threatened to slow the creation of the current state map. The color-coded dot system was key to the success of process mapping. With the "parking lot" yellow dots, the facilitators were able to end lengthy discussions over disagreements by marking the area yellow for further discussion and moving the conversation to a "parking lot" for later resolution if necessary. Individuals saw visual acknowledgment that the point was not yet settled, and so were able to move on to the next task.

The second issue was that the team realized during the first major hands-on session that it had to balance a desire to make process improvements in the moment, and the need to capture the process as it currently exists so as to later make broader, more strategic improvements overall. As facilitators, we feel strongly that process mappers must recognize and embrace a separation between improving a process as opposed to capturing a process accurately. Giving in to the temptation to draw out a process with changes to make it ideal means that valuable information about how it currently works and an opportunity to fix large elements of the workflow at a high level are lost.

Despite the initial emphasis on capturing the current state, process mapping does lead to process improvements. The collaborative process includes a step of marking workflows that are too complicated, take too long, or are currently dysfunctional. Highlighting these processes in a current map with red dots where obvious break-downs are occurring, or with green dots indicating opportunities that are not being tapped, allows for creating an improved iteration of the map later after all options are weighed.

Keeping these broad perspectives of mapping the current state and of using "parking lots" to pause on disagreements reaped many rewards. Several months after the boot camp experience, Conway and Jackson affirmed that the visual product of process mapping was a boon to the Special Collections Library. While still supplemented with detailed written documentation, the

maps provided a ready reference tool for a basic overview of a workflow. The Special Collections Library found that process mapping was a useful tool for creating orientation documentation, and that the boot camp kick-started a culture of process improvement. Workflow improvements included moving responsibility for communication about conservation of items from a curator to a collections assistant, allowing more timely responses to detailed questions about workflow.

The assessment of the gifts in kind process, in particular, led to greater benefits for the organization. Process improvements, particularly in interdepartmental communications between the department receiving the gift and the development officer, proved beneficial for all departments receiving donor materials.

Creating Process Maps as part of your Organizational Assessment Toolkit

Process mapping empowers library staff to identify and implement elements for improvements in routine work. When given the tools to assess processes, library employees at the University of Michigan made several such improvements.

As a result of the two-hour workshop on the basics of process mapping, several employees began creating process maps and seeking feedback from colleagues on the clarity of the maps. The Facilities department requested information on process mapping software to create a map of the building key request process, in order to clarify for both the department and key requestors the steps needed before a key could be issued. For a committee with rotating membership, a process map was created to communicate the workflow for ordering new books for a faculty authors collection. In these ways, process mapping began to enter our organizational culture as method for capturing knowledge and communicating between departments.

Key Findings and Tips for Library Process Mapping

We urge that anyone attempting to use process mapping as an assessment method in their library consider library culture to facilitate success. To that end, we lay out several recommendations.

Emphasize library processes in training and documentation to draw the connection between this technique and library tasks. Use common library workflows from circulation, acquisitions, or cataloging as example process maps to keep things familiar.

Consider using facilitators who are not embedded in the processes to be mapped. In our case, we were not a part of the Special Collections team and this allowed us to ask naïve, open-ended questions without others judging us.

Put careful thought into selecting the number and type of team members and stakeholders before embarking on process mapping. As Nozero & Vaughan found, attitude and aptitude of participants significantly impacts success. Libraries often have an inclusive culture, but not every committee member or department employee needs to participate in the mapping process. Rather, select representative individuals who understand different facets of the process to be mapped, and who also have an open, collaborative approach to work. Finally, clearly articulate the roles of each participant so each understands what they are expected to contribute to the process mapping work.

Clearly define a scope before beginning library process mapping. Library workflows are almost always cross-departmental and can expand indefinitely in scope if left undelineated. Process maps can always be expanded in later iterations; a narrow scope allows a single map to reach completion.

Reach a shared group understanding of mapping the current process before beginning assessment, gap analysis, and process improvement. The natural desire to improve processes as they are mapped will impede progress, generate more divergent opinions, and cause valuable information about the current process to be lost. Record ideas for process improvement in a separate document to be addressed after the map is completed. Process improvement must be a distinct step following process mapping.

Finally, remember to be flexible and willing to adapt the tools to the library environment. For example, we found that in our work with Special Collections, we had to abandon our plans to focus intensively on teaching our staff to use Microsoft Visio in favor of spending more time working through and practicing process mapping. By not adhering to a strict schedule, we were able to prioritize our most important goal: enable participants to develop their fundamental process mapping skills.

Conclusion

Process mapping as an organizational self-reflection and self-documentation technique requires an investment of time and resources. Still, companies choose to engage with process mapping because of the inevitable and profitable returns. The *process* of process mapping - taking "process map" as a verb - not only produces a map of a current or conceived processed, which can help organizations train new workers and retain critical and valuable institutional

knowledge from staff members leaving their positions, but it also produces a greater shared understanding of these processes, their successful flows, and their potential breakdowns.

The visual product of process mapping is especially valuable. Process maps give "at a glance" information at a scale useful for orientation, reference, and interdepartmental communication. Because process maps are by nature easy to interpret, even by non-experts, assessment and process improvement efforts gain participants from across the organizational chart. The visual information, especially areas highlighted as delays or breakdowns, empower managers to make evidence-based decisions about process improvements.

As libraries look to conduct more assessment of organizational activities, process mapping is an excellent addition to the assessment method toolkit. This method is particularly effective in departments in which assessment is not traditionally practiced widely, such as circulation. The collaborative act of process mapping, in which analysis is conducted by participants in the workflow, broadens the culture of process of assessment within libraries.

Note: the authors will present an in-depth workshop on process mapping at ACRL 2015.

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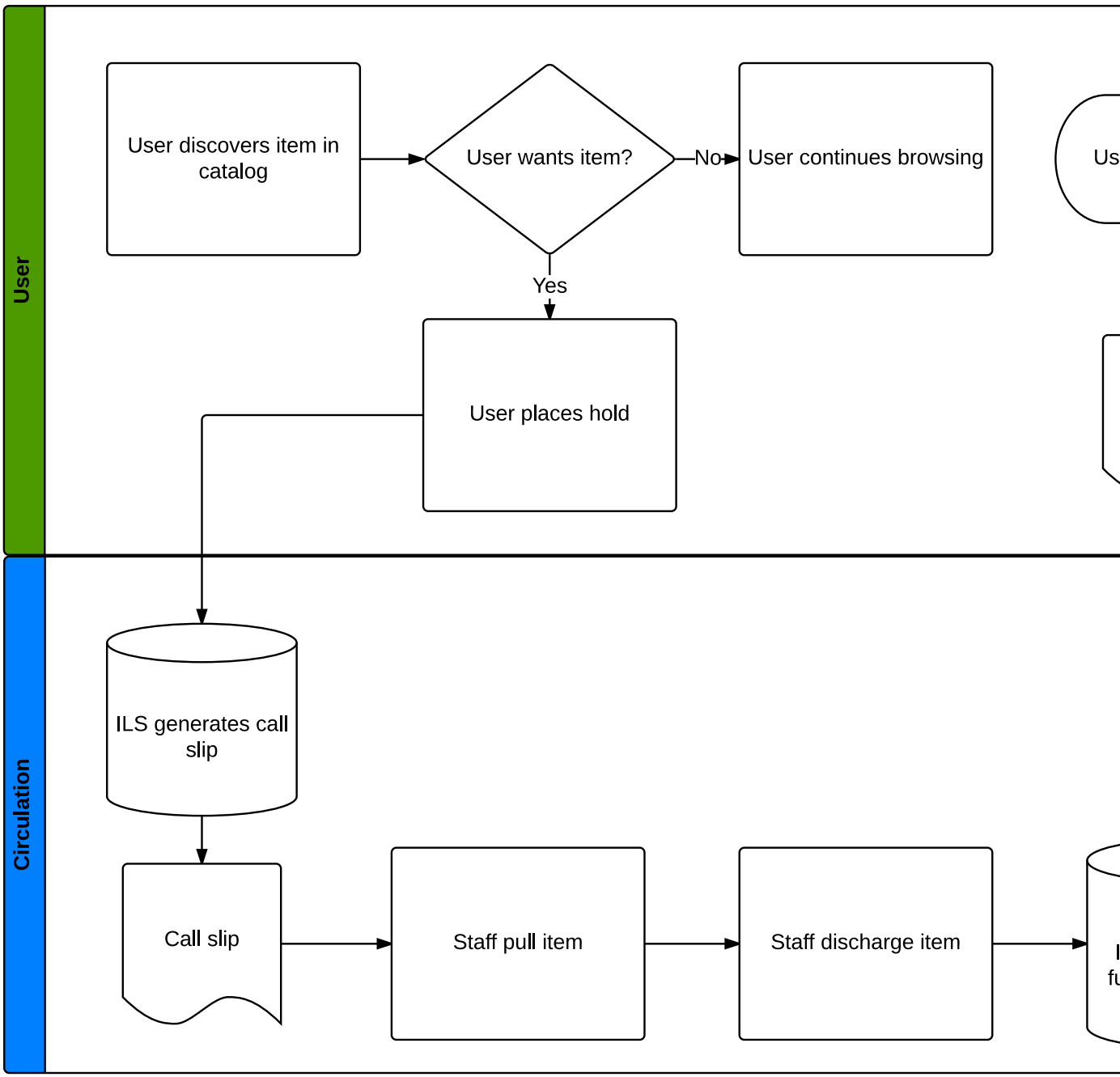

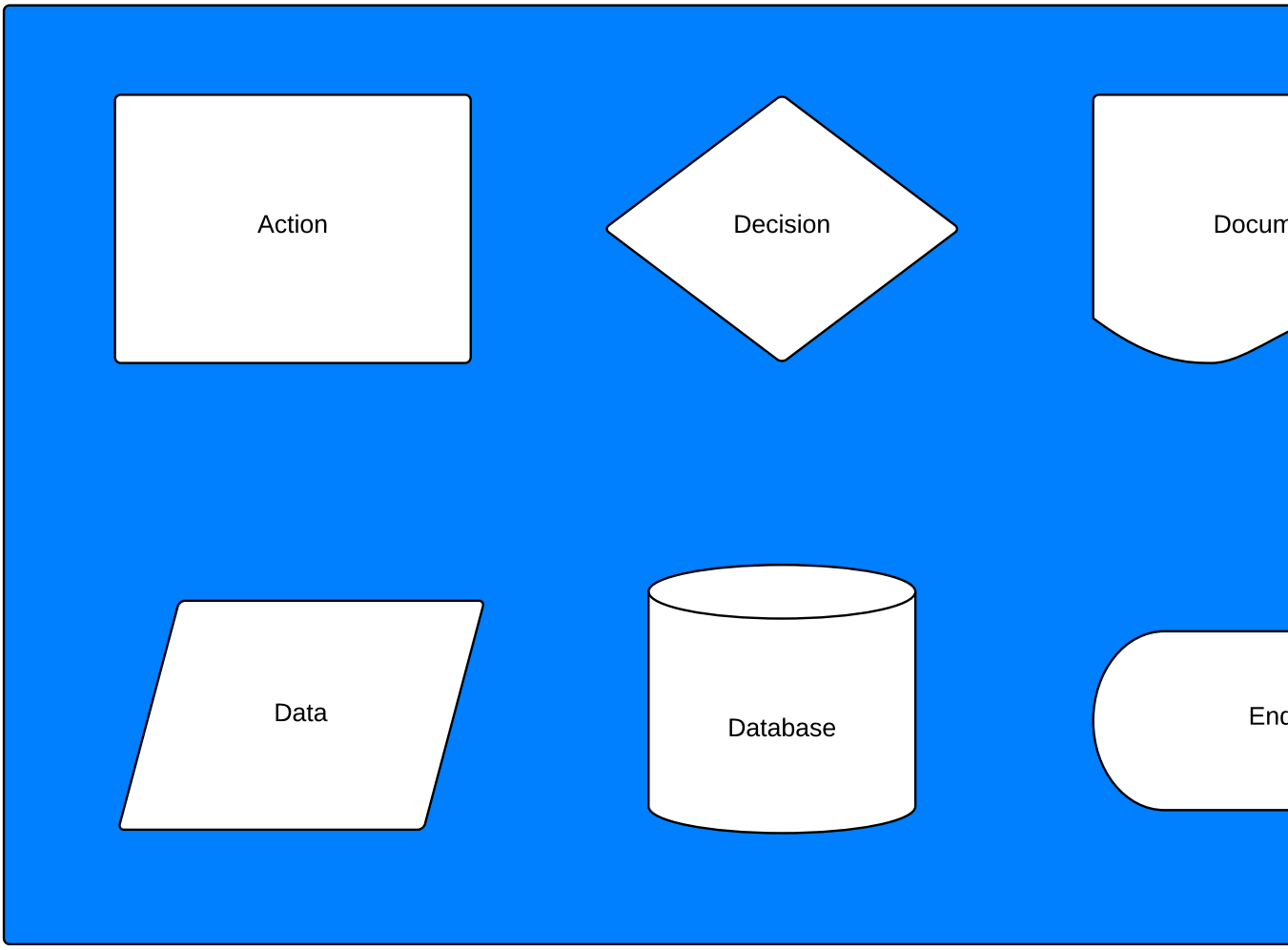

Workshop Element	Time (minutes)
Introduction	10
Process mapping overview	3
Reasons to use process mapping	6
Basic process mapping symbols	10
Demonstration of process mapping	5
Hands on activity	18
Process mapping software	3
How to implement process	5
Total	**60**

Boot Camp Session	Time (hours)
Session 1: Kick-off & Process Mapping Basics	1 hour
Session 2: Hands-On Mapping	3 hours
Session 3: Hands-On Mapping	2 hours
Session 4: Refining the Map & Microsoft Visio	2 hour
Session 5: Final Edits	1 hour
Present to administration	1 hour