

SIPOC, RACI & Brainwriting

An Introduction to Exposing the University Libraries'
Digital Preservation & Access Workflows

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At the beginning of 2020, when the University Libraries was back at full complement with various roles that affect the management of our digital content, a group of librarians and curators proposed the revival of a work group to provide a crossfunctional, consistent approach to managing our born digital acquisitions and our digitized materials, as well as the preservation and access to them.

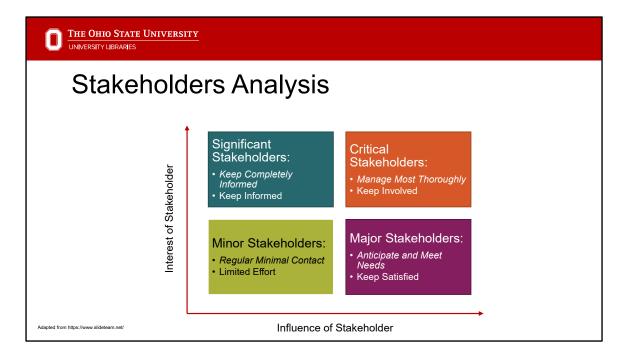
Various work groups over the past decade have come together around issues pertinent to born digital and digitized content with success in developing guidance, while other groups' efforts have not necessarily seen the light of day. Further, there is confusion at times as where to find definitive University Libraries' information regarding digitizing materials, accessioning born digital materials, and where we will preserve and provide access to them.

One of the goals of this group will be to provide a single point of access to find, discover and manage this institutional knowledge. Further, the DP&A, intends to provide transparency in decision-making regarding priorities, guidelines and standards that the Libraries adopts in these areas.

The DP&A will:

- Define, refine, and clarify roles and responsibilities around preservation and curation of digital collections
- Standardize the
 - · accessioning and processing of born digital collections
 - digitization processing for at risk collections
 - digitization prioritization and processing for providing online access to collections
- Work to ensure consistent implementation of metadata profiles
- Implement best practices for digital collection lifecycle management
- Continually evaluate University Libraries' current capabilities, and make recommendations with input from all stakeholders around the evolution of services

The initial charge from the sponsoring Associate Deans, Jennifer Vinopal and Karla Streib, meant to eventually achieve these loftier goals, is something much more basic, to identify our existing workflows that affect born digital acquisitions and processing, digitization, providing access to digital materials and the preservation thereof. Answering the question, "What are the intersections, gaps, redundancies and areas for improvement?"



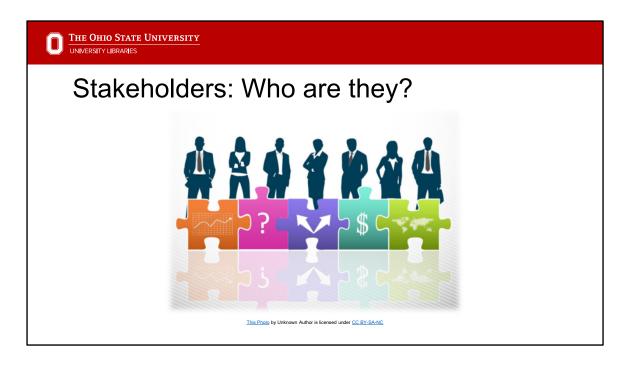
But first we must ask ourselves, "Who are we doing this for? Who are our stakeholders?"

"Stakeholder" is not a one-size fits all category or just a singular target; this is where we can often err in not being transparent enough.

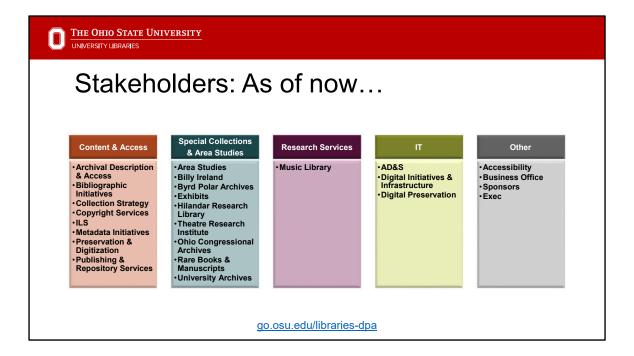
When contemplating who our stakeholders are, we need to gauge their influence versus their interest. Clearly our critical stakeholders are those that have both high interest and influence, and we need to keep them involved and most thoroughly manage them. But who are our other stakeholders?

- Major stakeholders are those that have a significant ability to influence, but
 possibly a lower level of day-to-day interest. These are the type of folks we need to
 keep satisfied by anticipating and meeting their needs.
- Significant stakeholders are those that have a interest in what we are doing, but do
 not have as much influence on our outcomes; these are folks we need to keep
 completely informed.
- Finally, minor stakeholders are those that have low interest and minimal ability to influence; these are folks we need to provide a limited effort to keep informed via

minimal contact.



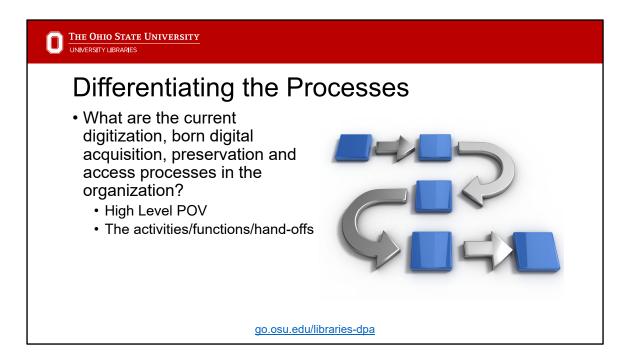
So who are our stakeholders? It is a long list.



Clearly this represents a wide swath of the University Libraries, and some may suggest it isn't wide or complete enough. But it is a starting point. Are these all "critical" stakeholders? That depends...it will vary as we work though the workflow mapping and analysis.

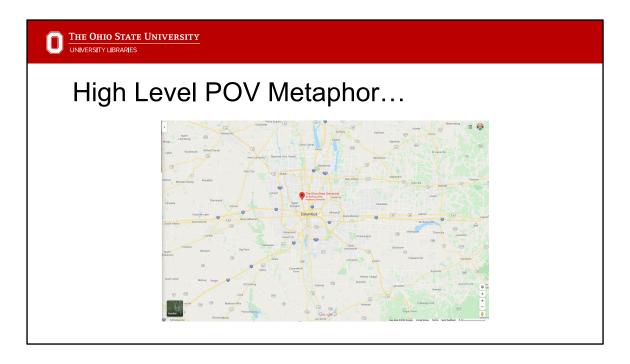
Some stakeholders may have a relatively static role; for example, a couple Major Stakeholders, who we need to anticipate and meet their needs throughout process are our sponsors, Jennifer & Karla, and by extension Damon and the rest of Exec. Whereas, myself as representing digital preservation may have a more fluid stakeholder role ranging from Significant to Major to Critical depending upon the workflow or process.

We also do not necessarily see this as a complete list; we wholly expect to reveal other stakeholders through this process that we may not have previously contemplated.



Having identified our stakeholders, at least initially, what is next?

We need to identify and differentiate our processes and workflows. This initially should be conducted from a high level point of view, identifying the activities, functions and handoffs associated with our work around acquiring and processing born digital collections, digitizing our existing materials, and addressing how we actively preserve and provide access to these digital materials.



By "high level point of view" imagine looking at a map zoomed out to show OSU in relation to Franklin County and surrounding areas, [CLICK] as opposed to be zoomed in to identify campus buildings and roads.

[CLICK] It is this broader abstraction that we are aiming for right now



Visualizing the Process Steps



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- SIPOC Diagram
 - 50,000ft POV
 - Identify/verify high-level process from individual SIPOCs
 - Ensure all processes are represented
- RACI
- Brainwriting
 - Generate all the activities in each process step

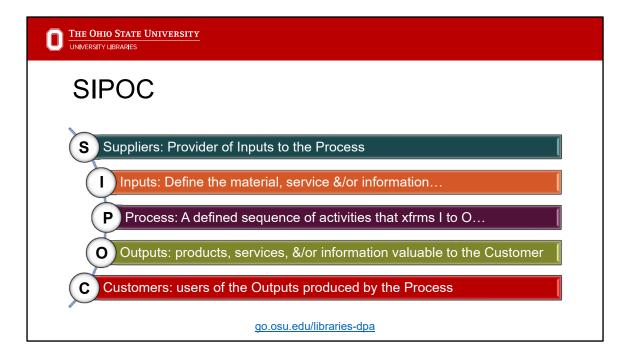
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We will engage in three techniques, to help us visualize and understand the workflows and processes that allow us to provide access to and preservation of, our born digital and digitized content. These techniques come to us from the realm of process improvement, with roots in total quality management (TQM) that continue to be used in Lean and Six Sigma programs.

The SIPOC exercise provides for a very high level view of our workflow or process. The steps in the process are aggregated up to a level of abstraction that still allows us to understand suppliers, inputs, outputs, handoffs and customers. The intent is to ensure that all processes are represented.

Following up on the SIPOC, each group will be asked to conduct a RACI to determine for each step within a process who is responsible, accountable, consulted or needs to be informed.

Finally, we will engage in brainwriting to further tease out the granularities of the steps identified within the SIPOCs.

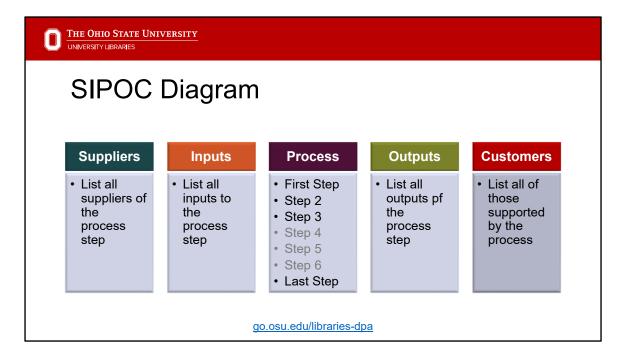


SIPOC and RACI, something we all know Dan lives [I LIVE] for, new acronyms!

SIPOC simply stands for:

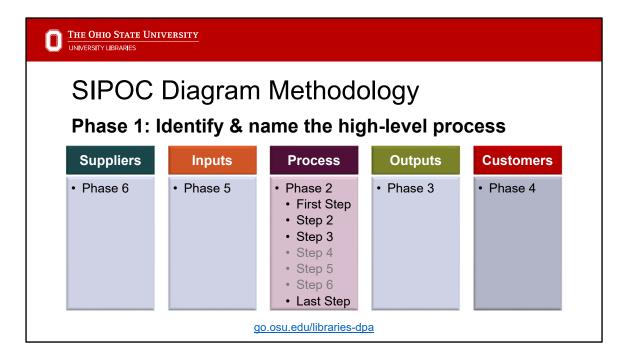
- Suppliers
- Inputs
- Process
- Outputs
- Customers
- Suppliers are the providers of Inputs to the Process
- Inputs define the material, service and/or information that are used by the Process to produce the Outputs
- A Process is a defined sequence of activities, that usually adds value to Inputs to produce Outputs, or transforms Inputs to Outputs for the Customers
 - In a traditional SIPOC, there are at a minimum four and a maximum of seven high level steps that should be constructed in a Verb>Noun structure.
- Outputs are the products, services and/or the information that is valuable to the Customer.
- The Customers are users of the Outputs produced or transformed by the process;

they can be people, organization, machines or software.



Conceptually this is what a SIPOC looks like, and it lends itself well to being documented in a spreadsheet.

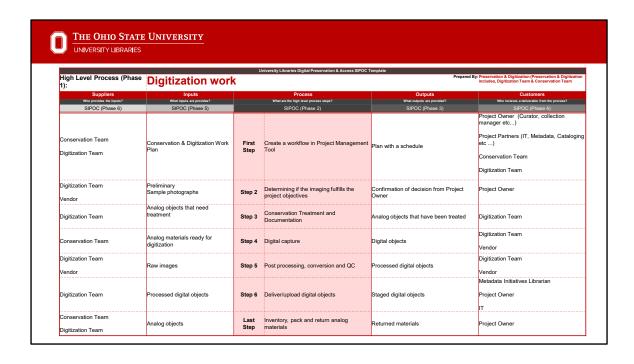
However, the interesting thing about a SIPOC, is that it is not created in the linear manner that the acronym suggests.



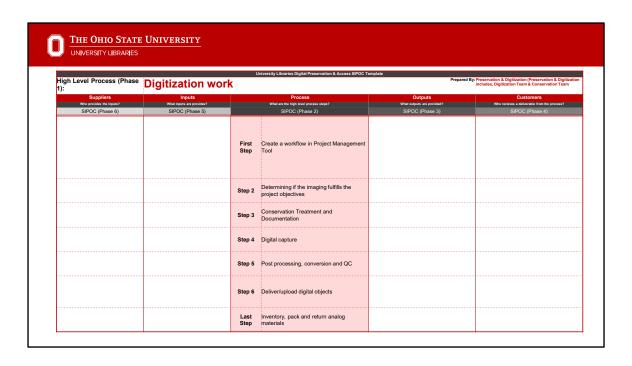
The creation of a SIPOC, actually sort of happens inside out.

- The first Phase is to identify and name the high level process or workflow [CLICK]
- 2. This followed by moving to the middle, and mapping it in 4 to 7 high level process steps:
 - 1. There has to be a First Step and Last Step
 - 2. With a minimum of two and a maximum of five additional steps [CLICK]
- 3. Next we identify the output of these process steps. [CLICK]
- 4. Which is followed by identifying the customers that will receive the outputs of the process steps. [CLICK]
- 5. Now we jump back to identify the inputs required for each of the process steps to function properly. [CLICK]
- 6. Finally, we identify the suppliers of the inputs that are required by the process steps.

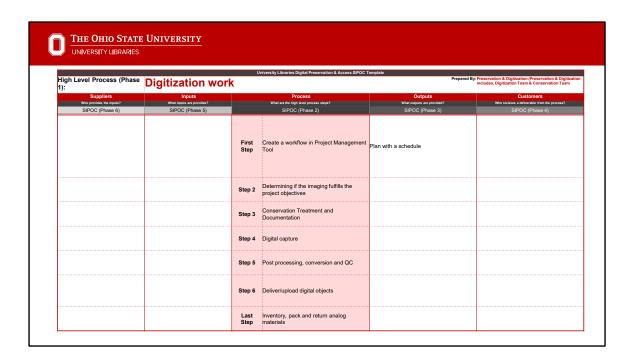
Once you complete a SIPOC, it can be reviewed with project sponsor(s), champion(s) and other involved stakeholders for verification.



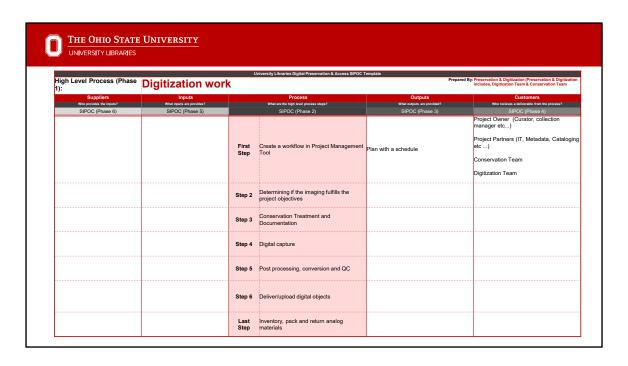
Here we have a completed SIPOC—Digitization Work—conducted by Miriam and her folks within the Preservation & Digitization Group



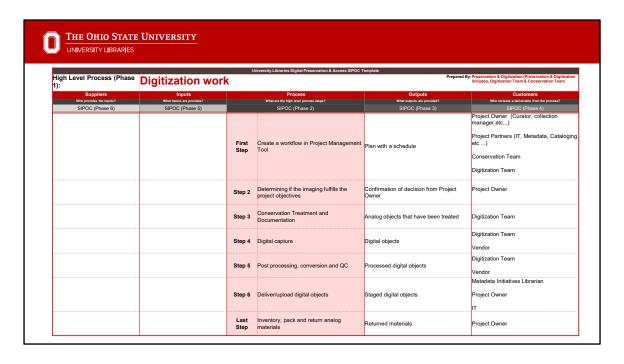
However, this is where they started from, having identified the seven process steps...



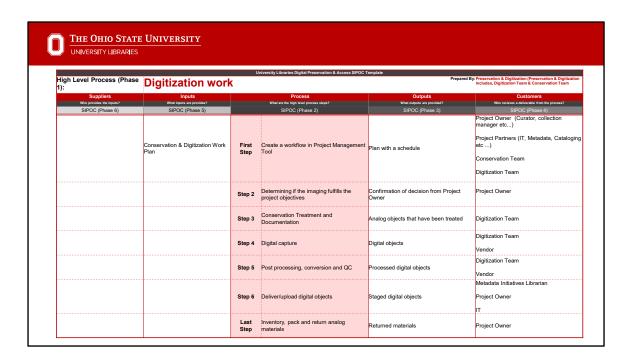
...that subsequently progresses to beginning to identifying Outputs...



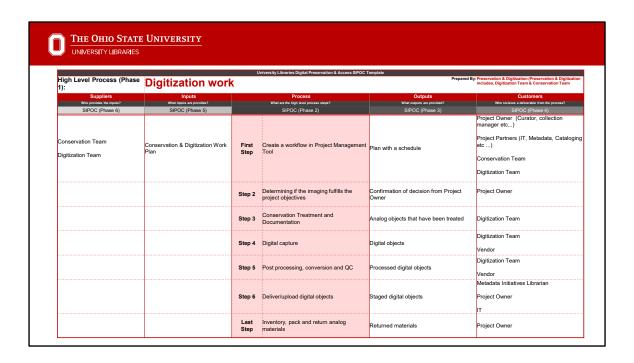
... and Customers.



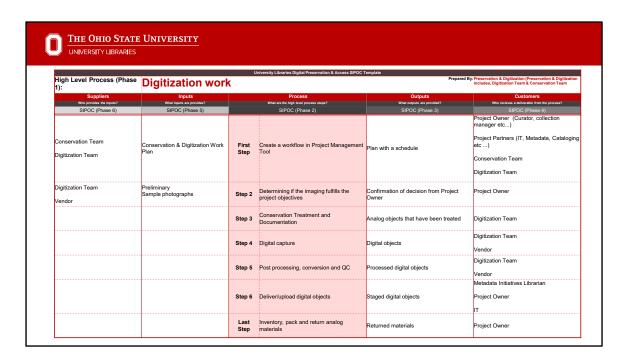
Next we complete identifying Outputs and Customers...



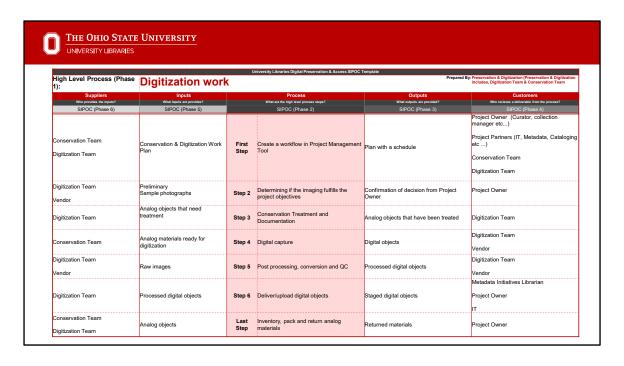
...before moving on to identifying Inputs...



...and Suppliers.



This process continues row by row, until...



...we have a completed SIPOC.



When we have completed the SIPOC we can begin to conduct the RACI exercise. This exercise allows us to identify the roles and their accompanying responsibilities that they may have for each process step. This acronym stands for:

- Responsible
- Accountable
- Consulted
- Informed

We need to make a distinction between a role and individually identified people:

- A role is a descriptor of an associated set of tasks that an individual is capable of completing; these may be performed by many people, for example:
 - Role = scan technician
- Whereas, an individual, is one person that performs a particular role or roles.
 - Individual #1 = scan technician #1
 - Individual #2 = scan technician #2; and maybe conservation technician #4

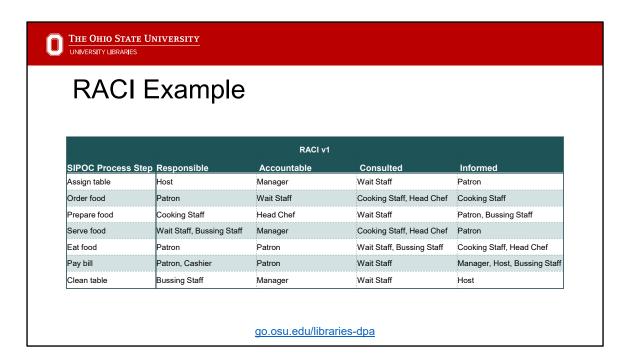
In a RACI we need to determine which roles are, Responsible, Accountable, Consulted and/or Informed

A role is "Responsible" if they are those who do the work to complete the task. There has to be at least one role that is responsible, although others can be delegated to assist in the required work.

The role who is ultimately answerable for the correct and thorough completion of the deliverable or task, is deemed Accountable. They ensure the prerequisites of the task are met, and delegate the work to those responsible. There must be one, and only one accountable role specified for each task or deliverable.

The first of the two optional roles are those that are Consulted. These are roles whose opinions are sought, typically subject matter experts; and with whom there is two-way communication.

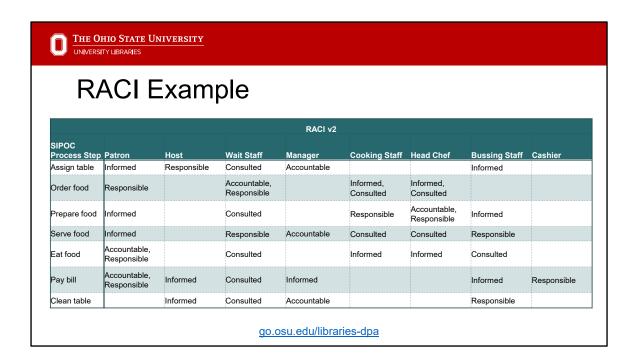
The final role is that of the Informed. These folks are kept up-to-date on progress, often only on completion of the task or deliverable; and with whom there is just one-way communication



The RACI can be completed by creating a matrix where the rows are at a minimum the process steps from the SIPOC, but could be augmented with more granular steps.

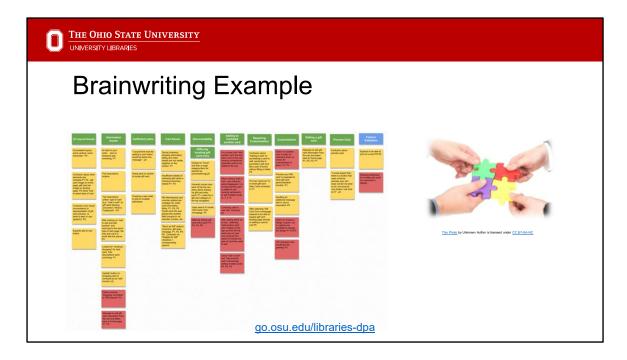
Here is an example based upon a restaurant visit workflow:

The RACI can be then be filled out in one of two manners: in version 1, the columns represent R-A-C-I and for each process the roles or persons are identified. Each step must have someone responsible (can be multiple) and accountable (can only be one). In this version one can quickly identify who is responsible, accountable, consulted and informed, for each step. In this example, we can quickly see that yes, there is one and only one accountable person for each step, while there may be multiple roles/people responsible, consulted or informed.



In version 2, the columns represent the various roles, and could be further broken down by individuals. For each step, one indicates if the role or individual is responsible, accountable, consulted and/or informed. In this version, one can see how a role or an individual's participation changes throughout the process, and aggregates their responsibilities.

Both versions provide us with valuable insight into the workflow and its processes.



The RACI is an important bridge to the brainwriting process. It helps us identify who needs to be in the proverbial room for the brainwriting exercise.

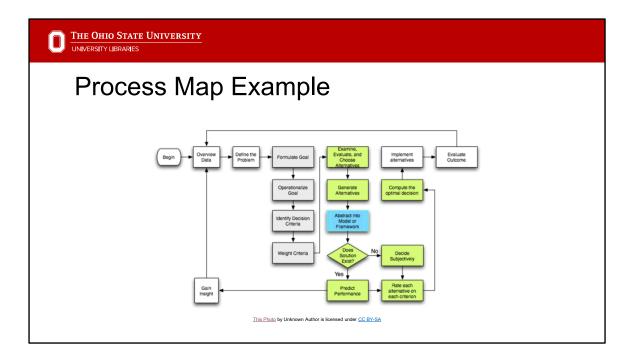
We are using the term "brainwriting" not "brainstorming" (and, no, definitely not brainwashing). What is the difference between brainwriting and brainstorming? In a brainstorming session we approach the exercise with an open mind where the sky is the limit, trying to get all the potential disparate ideas on the table from various points of view.

However, the objective in front us, is to document the now, and what we are currently doing; not what we want to be doing, regardless of whether we are doing the right thing or not. Brainwriting allows us to dive deeper beyond those four to seven process steps and examine our processes with a finer granularity.



Once we have our SIPOCs, RACIs and brainwriting complete, we will be able to analyze the data, along with validating and confirming it.

Based upon the validated/confirmed results, we will be able to develop the process maps with accurate information about the steps within the process, the roles and individuals involved, and where there are intersections and hand-offs, as well as missed opportunities.



The ultimate goal will be to assemble a larger visualization of all of the processes, identifying not only the steps within the processes, the roles and individuals involved, and where there are intersections and hand-offs, but the organizational redundancies, gaps and best practices. It is the intention that this will allow us to chart a more holistic, cohesive approach to acquiring, accessioning and processing born digital materials, digitizing existing content, then actively preserving, and providing access to this digital content.



As a recap of the steps in this overall project:

- We will be identifying all existing processes related to providing access to and preservation of our born digital and digitized content.
- We will use the SIPOC, RACI and Brainwriting tools to complete the list of process steps, capturing roles, individuals and handoffs...
- ...leading to the development of a process map.
- The draft process map will be shared and validated with the stakeholders, and presented to the Digital Preservation and Access work group for final considerations before sharing with the Sponsors and greater University Libraries community.



The key deliverable to our Sponsors is the finalized process map of what our digital preservation and access workflows are. Additionally, DP&A will be making recommendations for process improvements and suggested next steps to effect the improvements.







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- SIPOC Template (go.osu.edu/ul-sipoc-template)
- · SIPOC in Wikipedia
 - https://en.wikipedia.org/wiki/SIPOC
- Lean Six Sigma Technique Tips SIPOC by Pyzdek Institute
 - https://www.youtube.com/watch?v=AIN7eNOBPzg (7 minutes)
- How to complete the SIPOC Diagram by Six Sigma Development Solutions Inc.
 - https://youtu.be/x8_I19PJBY8 (1 minute)
- SIPOC by LeanOhio
 - https://www.youtube.com/watch?v=_2_ljfg4EVk (4 minutes)
- SIPOC Diagram explained (with example) by Bzhwen A Kadir
 - https://www.youtube.com/watch?v=j9oWnnbtkOo (7 minutes)

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