Good afternoon, I am Dan Noonan, the Digital Preservation Librarian for The Ohio State University Libraries, and an incoming member of the NDSA’s Coordinating Committee.
WHO ARE WE?

**National Digital Stewardship Alliance:** is a consortium of more than 220 partnering organizations, including universities, professional associations, businesses, government agencies, and nonprofit organizations, all committed to the long-term preservation of digital information; an outgrowth of the Library of Congress’ National Digital Information Infrastructure and Preservation Program (NDIIP)

- **Levels of Preservation Working Group**
  - Levels of Preservation Revision
    - Leads: Karen Cariani and Dan Noonan
  - Implementation
    - Leads: Corey Davis and Abby Adams
  - Assessment
    - Leads: Carol Kussmann and Amy Rudersdorf
  - Curatorial
    - Lead: Bradley Daigle
  - Teaching, Outreach and Advocacy
    - Lead: Helen Tibbo

NDSA is a consortium of more than 220 partnering organizations, all committed to the long-term preservation of digital information.

These revision efforts were handled by a large cadre of volunteers via the sub-groups listed here.
From the call for participant’s in early 2018 to the debut of version 2.0 at iPres and DigiPres this fall, this process took approximately a year-and-a-half.

Granted this does not include the pre-planning by NDSA’s Coordinating Committee, nevertheless this is a pretty impressive feat from my experience in working on national and international workgroups.
In 2013, with NDSA’s unveiling of the Levels of Digital Preservation, Version 1—created through the work of a group that included our very own co-presenter Trevor Owens—Meg Phillips noted that the Levels are “…a tiered set of recommendations on how organizations should begin to build or enhance their digital preservation activities. A work in progress....”

I would stress the use of “a work in progress” as it is intended that this matrix is not a static document; they even called it version 1.

The Levels are meant to address the technological aspects of digital preservation, not digital preservation policy for example.

We stressed the need for an agnostic approach to the concepts used within the matrix that emphasizes common practices and understanding, and not particular local practices.

As an overarching strategy, we worked hard at bringing a sense of consistency across the functional areas and levels.

We entered this process with the expectation for much discussion, where folks
actively listened, were considerate of one another, and were making decisions, even if the decision was to move on and come back later.
The Revision Subgroup, for which I was Karen Cariani’s co-chair, was charged with the actual updating of the Levels’ matrix.

The central objective was to make sure the actions identified in each cell of the matrix are practical, actionable and scalable guidance, not only for those with fully implemented digital preservation programs, but also (and maybe even more importantly) for those just getting started.

In addition to our regular virtual meetings, we spun-off some specific task groups that met between meetings to tackle various aspects of the work.

We reviewed LOTS:
- Amongst our team
- With other work groups
- Externally with broader community,
- And with the key original authors.
And here it is version 2.0 – and yes I expect y’all to be able to read this in detail – well not really and that is why I have the link provided on most of these slides.
While we were not starting with a “clean slate” we did struggle with where to start. Do we start with the Levels and Functional Area labels? OR Do we start with the content of the cells?

Ultimately, it was a little bit of back and forth. We did start with the labels, but then backed off as we felt we needed to address the content within the cells to see how they aligned to the labels.

This eventually lead to a re-alignment of the columns. In v1.0 the columns were Protect > Know > Monitor > Repair your data.

In v2.0 we felt it was more important to “know” your data before one is able to adequately “protect” it. Further, that from a preservation point of view we want to be able to not only repair our data, but sustain our data; therefore the progression is now Know > Protect > Monitor > Sustain Your Data.

We discussed at length the actual purpose of each of the Functional Areas, but feel we have adequately restructured them for simplicity, as well as extensibility. Therefore we made the following changes:
Storage and Geographic Location is now just Storage
- File Fixity and Data Integrity is now more fully encompassed within Integrity
- Information Security was really about Control of our content
- Metadata is well just Metadata
- And File Formats is more broadly conceptualized as Content
As previously noted this was clearly a collaborative community process.

We relied upon survey feedback conducted by other workgroups, as well as our own.

We considered adding a functional area for “Documentation” but ultimately felt that it was out of scope for the matrix.

We constantly struggled with vocabulary. We’d make proposed changes, come back a week or so later, struggle some more over content, propose some more changes (or changes back); and then maybe go through the same process a few weeks later. Heck, I don’t even remember how many times we revised the metadata row at this point.

It was clear that vocabulary and verbiage was important enough that we have created a set of working definitions. Even calling that “working definitions” vs “glossary” or some other term was up for debate.

Finally, we also created the matrix as a table that can be re-arranged, and have provide one alternative view.
This alternative view flips the columns and rows, where one can read across a row for all Functional Areas for a particular Level. In theory, this could be sorted with Level 4 at the top.
The Implementation Subgroup was created to explore the use and adaption of the Levels framework to implement or improve digital preservation infrastructure, administration, and maintenance.

Further, the group was charged with developing guidance, based upon the results of this exploration and the revised matrix, for the use of the Levels.
To this end, eventually a collaboration between the Levels Revision and Implementation subgroups led to this document which provides an introduction and background to contextualize the Levels matrix. It goes on to provide recommendations for implementation, and supplies the working definitions for terms used within the matrix.
The Assessment Subgroup was charged with investigating the use and adaption of the Levels as an institutional benchmarking tool for identifying gaps in practice, an assessment of digital preservation readiness, as well as to review progress.

- Reviewed how others were using the Levels as an assessment tool
- Found multiple ways organizations were using the levels as an assessment tool
- Documented findings in a report: https://osf.io/47kqm/
To that end, in addition to the report, the working group devised an initial spreadsheet based tool.

It is developed with conditional formatting to create a “heat map” type of result. The user enters

- 2 if the item has been Achieved
- 1 if it is a Work in Progress, or
- 0 if it has not been started

The results provide a visual representation of what is being done, and what might be something to focus next efforts on.

Keep in mind most institutions and organization will not necessary progress in lock step “up” the levels or even necessarily complete each aspect of a functional area before progressing to the next level. That is why this tool can be useful in easily visualizing those gaps.
The Curatorial Subgroup was tasked with exploring a new angle on the use of the Levels, that of a non-technological decision-making overlay or layer, which will allow curators and collections stewards to make initial preservation decisions that map to the Levels.

They have had a heavy lift of defining what “curatorial” means in this situation and how to utilize it in this overlay of the Levels.

In the end the came up with four curatorial viewpoints
- Collection development (including appraisal and acquisition)
- And three for Collection Management:
  - Security
  - Intellectual access
  - Technical access

The application of the curatorial layer is not meant to be strictly linear, but is designed to be useful at any point in curation. The workgroup is in the process of developing exemplary workflows for consideration, which we do not have time today to demonstrate.
Based upon the existing work of the aforementioned work groups we have already begun to identify use cases for the Levels of Digital Preservation. From:

Assessing the capacity and readiness of a digital preservation program… TO

Outreach and education about technological issues surrounding the preservation of digital content… TO

Being a flexible way for curators to assign appraisal values at whatever level is appropriate for the resource at hand, even mixing appraisal values within the same collection for different resources…

Certainly, this list is not exhaustive.
Finally, it is time to begin to promote, as we are today, the revised Levels. In addition to presenting at conferences and meetings, we are developing a webinar and a strategy for poster presentations at conferences this next year.

It is also time to establish a regularized feedback loop to gather suggestion for future iterations and refinements of the Levels.

To facilitate this work we are spinning up the latest subgroup, Teaching, Outreach, and Advocacy, which will also explore the use and adaption of the Levels as a teaching tool for understanding digital preservation concepts and pragmatic use, and to advocate for preservation resources.
Thank you!