

Unintended Uses of a Journal Review System within a Repository for Digital Tracking of University ETDs

Presenters: Jaime Goldman & Keri Baker, Nova Southeastern University

Transcript

Slide 1

Hello and welcome to our presentation entitled: "Unintended Uses of a Journal Review System within a Repository for Digital Tracking of University ETDs." My name is Jaime Goldman and my co-presenter today is Keri Baker. We are the 2 marine and environmental science subject specialist librarians at Nova Southeastern University's Oceanographic Campus Library in sunny South Florida. Today we are going to speak to you about how we utilized the bepress journal review system in our repository to create digital signature pages and a method of tracking our students' electronic theses and dissertations, or ETDs, progress within our graduate degree program. We will discuss how the idea to do this came about, and how you can implement similar strategies in your library if your role includes reviewing, binding, publishing, or in any way managing ETDs. Our institutional repository platform is bepress digital commons, and we fully understand and acknowledge other repository systems may not have a way to track peer review for journals within the repository. It is our hope that this presentation helps inspire creative usage of already owned in-house tools to fulfill a need or demand you see in your community!

Slide 2

The NSU Oceanographic Campus Library is located in the Guy Harvey Oceanographic Research Center on the NSU Florida Dania Beach campus. This remote campus is part of the larger Halmos College of Arts and Sciences. Our small, niche, subject specialty library specifically serves the Marine and Environmental Science graduate and undergraduate degree programs and the Biological Sciences graduate degree programs.

Slide 3

For some background information, which affected the evolution of our ETD lifecycle, here is the history of the NSU Halmos College. Established in 1966, the NSU Oceanographic Center was one of the first schools of what was then known as Nova University, a young university established in 1964. This is the college program where we began our ETD lifecycle journey.

In 2015 NSU underwent an academic realignment. The former NSU OC and the Division of Math, Science, and Technology of the former Farquhar College of Arts and Science merged into the Halmos College of Natural Sciences and Oceanography. We worked to incorporate any thesis and dissertation degree programs from the new Halmos college into our ETD lifecycle.

Then, just last year in 2020, the university underwent another reorganization and right-sizing change. The colleges formerly known as the Halmos College of Natural Sciences and Oceanography and the College of Arts, Humanities and Social Sciences merged to form the NSU Halmos College of Arts and Sciences and the Guy Harvey Oceanographic Research Center.

Slide 4

Unlike the other programs and colleges at NSU, the OC library is the final clearing house for all capstones, theses, and dissertations within the Halmos College programs. We found ourselves with a unique problem and opportunity to become invaluable embedded in our program and today we are going to discuss how we repurposed a tool we already had to create a home-grown ETD ecosystem. We will share how we went from the print ETD collection you see on the shelves, to the digital ETD system you see on the display above them, including our challenges, solutions, lessons learned, and future plans.

Throughout today's presentation we will be predominantly focused on the 2 programs within the Halmos college that we initially worked with prior to the July 2020 merge - the Department of Biological Sciences and the Department of Marine and Environmental Sciences. Although we have already brought other new post merge programs into the fold, it is too new of a development to speak extensively about yet! But more on that later...

Slide 5

NSUworks, our Bepress Institutional Repository, is now 8 years old. Since its launch, we have added 59,000 unique objects to this repository. We have seen over 7 million downloads during this time, and now average about a million downloads a year.

The Halmos collection makes up about 23% of the total collection in the repository and of that, over half of the collection is open access either by full direct download in the repository or by linking out to the item on the web.

We have 1,113 student capstones, theses, and dissertations in the repository. Our Biological and Marine and Environmental Sciences portion of this collection is archivally complete. We have just acquired 3 new departments with graduate publication requirements in July. We added another 220 ETDs to our collection, bringing our total open access to 47%. However, the archival, non-digitized theses and dissertations of these 3 departments have not been archived, even as metadata, in the repository yet and we are working with those departments now to see what the potential for this as a possibility is.

Slide 6

When Nova University began as a graduate institution in 1964, some of the first dissertations were published in print and cataloged in the NSU Libraries going as far back as 1970.

NSU transitioned slowly from the 90s on with online formats with an in-house collection called MARPS, which stands for Major Applied Research Projects, and then to ProQuest ETD database. NSUWorks was launched by the NSU Libraries in 2014 to celebrate our 50th anniversary, in order to preserve all past, present, and future scholarly output.

After the launch of the NSUWorks institutional repository, several NSU Colleges moved to electronic only thesis and dissertation publication via NSUWorks and/or ProQuest, where all ProQuest ETDs are transferred to NSUWorks. And this is where we began looking for a solution to tracking the entire ETD lifecycle for our college program. (1:10)

Slide 7

We would definitely refer to our journey to create a comprehensive ETD ecosystem an ongoing evolution! We had the end goal in sight, but getting there was a long and arduous journey at times. We created a timeline of all the small steps and things that had to align in order for us to reach our final goal. If you would like to review our timeline, we have linked it here, but I will also show a brief video overview so you get an idea of the scope of this project.

Slide 8

When I joined the OC Library team in 2010, I immediately identified issues with this process and acknowledged frustrations on the part of the faculty, students, program office, and library. Also, as a former student of this program, I personally knew just how frustrating this was from the student perspective .

We tried to attack the problem all at once, but that was too overwhelming for the program office and other stakeholders, so we took a step back and started with some of the biggest issues then worked from there. We are always amazed when we add new milestones and look back on the scope of our journey and work. Please know that we were working to address multiple challenges with this project, but for the focus of today's presentation will be covering the pink and yellow boxes you see on this timeline for approvals & signatures and for tracking student progress. The other colors represent different challenges we are not addressing today, but can be seen in the key of the timeline online.

Slide 9

This slide highlights some of the major challenges you just saw on the timeline that we were facing with capstones, theses, and dissertations at our institution, which led us to seek out alternative workflows and a digital ecosystem where we could track the entire lifecycle. The major challenges we faced with the ETD process at our institution were tracking student progress from proposal to defense to final publication, discoverability and accessibility of the publications, the cost and labor of binding, the inherent roadblocks and issues with print wet-ink signature pages, and obtaining permission to publish historic works due to our opt-in policy.

Slide 10

Today we will focus on how we utilized a tool we already had by repurposing the author submission and journal review process for submission, tracking, checklists, and digital signatures. This not only made the process easier for both administrative and library staff, but also for students submitting their work and the faculty that reviewed it. We will tackle each of these challenges and then go through our home-grown solutions and show where they fall within our ETD ecosystem today.

Slide 11

The approval problem: Traditionally, our capstones, theses, and dissertations were approved via circulated and signed cotton bond signature pages that the committee members signed in blue ink. Students needed enough of these "wet ink" signature pages for all of the bound copies they were getting done. As you will see, there were a lot of problems with this final step that students needed in order to finalize their submissions and graduate. The NSU OC Library served as the final clearing house for these approvals, signature pages, and binding, so we witnessed first-hand the problems and frustrations of this process.

Slide 12

For such a simple, final step, there were actually a lot of problems. It became a huge pain point and source of frustration for our students where, just when they thought they were done, they were facing not graduating on time because their signature pages were not done correctly, came back damaged, or were lost in transit.

1. The signatures were often not signed in blue ink as required, so the library was left to decipher whether a signature was a true "wet ink" signature or a photocopy. We had to ask students to re-print their signature pages and circulate them to their committee again, which was exacerbated when faculty and committee members were not onsite in-house to sign quickly. Then, once we began digitizing historic works for our repository, we struggled with the implications of having our faculty's handwritten signatures available online.
2. There were also problems related to the paper and circulation of physical signature pages. We would often receive final approved signature pages on incorrect paper or ones that were not using the approved program template and they had to go back to the committee. Also, physical signature pages were often misplaced, lost, or damaged during their journey.
3. Of course, the need to send signature pages back for edits, correct paper, correct ink, and so on led to longer time for the degree conferral for students, more work for everyone involved, and additional costs if signature pages had to be mailed around again or if a student exceeded the current semester's deadlines.

Slide 13

Here are a few real-world examples of the approval and signature process challenges I just outlined. This was an email between the library and the program office regarding letting non-blue ink signatures slide due to the cost already incurred by a faculty member.

Slide 14

In this example, we emailed an anxious student regarding a delay in binding and degree conferral due to their signature pages getting lost at the off-site bindery. This was especially troublesome as one of the committee members was in Greece! We ended up conferring the degree and paying for the cost ourselves of shipping full bound copies for signatures internationally instead of an envelope of a few pages.

Slide 15

Here a student was worried as one of their committee members was located in France and they were awaiting the signature pages to be mailed back internationally in order to confer their degree. As a global university, circulating print/wet ink signature pages was a delay in the process that often-caused problems and concerns.

Slide 16

Sometime students would be confused about the correct template to use for their signature page or use the wrong one all together and then have to go back through the entire physical signature process once the library reviewed their submission for binding and degree conferral.

Slide 17

Our faculty and committee members were also frustrated by this process, and often asked who should be responsible for the cost, time, and logistics of circulating physical, wet ink signature pages. They made a great point here about other forms and signature options available electronically, and we used emails such as this to make our case for our solution.

Slide 18

When I started in 2010, I tried to address these challenges by creating a library form to track all of the minutia and moving pieces of this process. After many iterations, and a whole new redesign after Keri came onboard in 2013, this was our final best case scenario pre-NSUWorks. The snapshot you see here is just one part of the form, with different kinds of documents with their own formatting guidelines, and signatures pages. We knew there had to be a better way... Keri will now share how we addressed these approval and signature challenges and the unique system of solutions we came up with.

Slide 19

So because we are the final stop in the thesis process for the students and a barrier to their graduation if things don't go smoothly, of course, we were the point where everyone – faculty and students – would come to complain about the “wet ink signature” process; and as you saw from Jaime's quotes above – most of them were highly justified in their complaint. Something needed to be done.

Slide 20

We go live with NSUWorks in Feb 2014. From that point on, for almost 2 years, the main goal was to upload all the historic, even if only metadata, into NSUWorks and reaching out to alumni to see if they wanted to make their thesis or dissertation open access. NSU has decided to have an opt-in rather than an opt-out policy for their ETDs.

In August 2015, we developed an integral relationship with our program office where thesis and dissertation production were concerned. In this meeting, we were able to limit the number of print copies from 3 to 1, no longer hold copies of print manuscripts in the library, and have the students submit their metadata and the full text PDF to the repository themselves. This worked great for about a year when we decided, after a number of issues with the wet ink signatures, to seek out help from bepress to attempt to collect digital signatures in NSUWorks using the journal review system.

Slide 21

So let's talk about this journal review system feature in bepress.

If you've ever submitted an article to a peer-reviewed journal or have done peer-review in the past, this will all be familiar to you. Our students are sent the submit link in almost every email they get from the program office concerning their thesis. If they happen to navigate to the series in the repository, there is also a submit button on the page under the Author corner.

Slide 22

Our students submit their manuscript to a dedicated HCAS ETD series in NSUWorks. They fill out basic standard metadata like title, date, abstract and keywords, but we have also added some publicly hidden administrative fields that helps us with future issues that may arise with their manuscripts. Once they submit, Jaime and I receive an email letting us know a new submission has been deposited.

Slide 23

When we log in to the repositories back end, we can see that Jasmine has submitted her thesis. If we click on her title, we will be able to see what she's uploaded.

Slide 24

From there, we have a publication checklist that allows us to keep track of the tasks that need to be completed before publication. This also allows us to see where we are in the process no matter who is doing the processing of the individual thesis.

Slide 25

These committee members then get an email asking them to sign off on the thesis. They click through a series of buttons to review the manuscript again and make comments that are public for the student to see or are for our eyes only. Largely, they have already reviewed the manuscript so the only comment they have is “Approve” or “This is good to go.” Once they have signed off, we can see the submitted reviews along with the dates in which they submitted those reviews. We also, as administrators, have the ability to upload reports for reviewers, in the event they are unable to log in and upload their signature for any reason. We upload the email that they reply to as their “signature.”

Slide 26

This is what the committee member sees when they go to sign off. Notice the “I will review it” / I will not review it buttons. This initially confused our faculty who had already reviewed the manuscript offline. We were not able to change the buttons to say I will sign off or I will not sign off, which was a flaw of the system in the way we were using it.

Slide 27

Once the faculty member agreed to review the manuscript to sign off, they could download the PDF to see it if they wanted, and then they click on the Submit Review button.

Slide 28

The review system allows you to upload a full report as a Word or RTF file or, the most popular choice, as a text file. Since so much of the edits are done in person with the student, the times major edits have been asked for are very rare. Most committee members write “I approve this with no changes” and click “Accept this article with minor or no revisions.”

Slide 29

After the reviewers have all completed the review you can see their time and date stamps, what their recommendation is – to approve, make changes, or not approve; and then we can download their review in whichever form they chose to upload it.

Slide 30

You can see what the reviews look like here. Most are very brief and are some version of the top review. But you can see what a review looks like that comes in with revisions needed before publication.

Slide 31

Jaime and I regularly need to make edit suggestions of our own so that everything complies with citation style requirements as well as our own in-house requirements.

Slide 32

Once we've confirmed receipt of all digital signatures, we can publish the manuscript. In the publication, a digital signature page is generated for the thesis. The standard bepress cover page comes first, followed by the signature page, followed by the manuscript.

Slide 33

So how did the faculty receive this change in process?

Not well...at first.

Largely their disgruntledness was due to the fact that they didn't know how to use the system. Even though we sent detailed instructions with the emails on how to do the new digital signature process, there was a little bit of hand holding that had to take place. Faculty were confused by the wording in the system because the system is set up for journal review, not thesis signatures so we had to do some training on what the different choices meant. Bepress was able to change some things for us but not all things. Again, we are repurposing a tool that is not really meant for this and THAT is the biggest downside to doing something like this - dealing with the little quirks that could potentially be problematic.

Faculty are still having issues with the technology here but it isn't anything we can't handle. Little issues like forgetting their password or not looking out for the full series of emails with the instructions are the most common issues.

Other faculty were very concerned about what we are going to talk about next - the proposal and defense approval portals. There was a thought that our proposals and defense approval forms were being published because they were in the IR, which is a valid concern, but was not the case. Others were confused by the word "review" instead of "sign" and thought they were being asked to put their notes in again to this system.

All of that aside, this system, once taught to everyone is widely accepted without exception. They find it easier to sign off on a manuscript, the system is relatively easy to use, and they can access it from anywhere in the world and on any device. The only gripe is that it is not as pretty as a wet ink signature page but function quickly outweighs form in this case.

Slide 34

The tracking problem: This challenge was related to the tracking of student progress throughout the lifecycle of a capstone, thesis, or dissertation, including proposal, defense, and final submission. We faced unique challenges as the final clearing house for student binding and publication, and serving as the liaison between the students, program office, and bindery. There are a lot of moving parts tracked by various offices and individuals which led to a lot of problems and concerns.

Slide 35

The old way of doing things meant tracking student progress on various forms housed in different offices, or emails between individuals. It was very difficult to quickly ascertain where a student was in the process and to track down the official, and sometimes unofficial, documentation. All the steps were on different, unattached forms that only 1 person in the program office had copies of or access to. When an employee would leave access would be lost to any historic computer files or email trails. This led to concerns with accountability and quality control for everyone involved in the process. As there was no digital trail or checklist to know where a student was, there was no transparency and you could not see the entire process and how a student was progressing throughout it.

Slide 36

Undocumented proposals would show up at defense and publication time that were never approved. In fact, one student who took a leave of absence and came back years later to finish had no documentation of their journey and the program office had to accept their draft on good faith and allow them to move to completion. There was a glaring need for a transparent and accessible digital trail of accountability and progress along the track to graduation.

Slide 37

Many of the steps, including proposal and defense, used to be done through email, which made it extremely difficult to keep track of students and who had sent what and when. With no accessible written record or documentation on student's or on professor's end, there was a loss of accountability, quality control, and accuracy of approvals throughout the entire process.

Slide 38

Without knowing where a student was in the pipeline, some students fell through the cracks and lingered in the program. Lost timelines and documentation led to confusion of where they were in the process for everyone involved. Students often came to the library first to get information their progress, even though we had no record of or access to this information. We would have to serve as the middle-man between students and the program office.

Slide 39

Here is our final, best case scenario for tracking ETDs prior to the launch of NSUWorks in 2014 - a library created and housed form tracking all the moving parts and items throughout the ETD submission process. There were sections for multiple stakeholders to fill out, but the paper form (even digitized in our shared library drive) was only immediately available to the library staff. With the lack of transparency and frustration on the part of the faculty committee members and the program office, there was a clear desire and need for a smooth process that left a visible trail that anyone involved could view.

Slide 40

So we knew there were problems that needed fixing, but it wasn't until the program office approached us for solutions that we were able to help.

Slide 41

I think it is important to step back slightly for just a minute and see what the lifecycle of a thesis or dissertation is for a student at the Oceanographic Center.

Slide 42

With this whole transition from print to electronic and addition of digital signatures, it's important to know we did not start in the beginning. We started in the middle at step 3. By having the students submit to the repository as a requirement of graduation and using the journal review system in bepress to track digital signatures we are able to completely satisfy this step. It is also important to know that we tried, and failed epically, to launch steps 1-3 all at once and it was way too overwhelming for the college so we scaled back and baby stepped our way through this process. We started here as it was the most immediate thing we could change that required the least amount of work from our faculty and program office while also having the most amount of impact.

Slide 43

After the student submits to the ETD portal in NSUWorks, satisfies everything in our checklist including committee digital signatures and final edits, we send an email to the program office letting them know the library portion of the degree conferral process has been satisfied.

Slide 44

Publication rates are high with our students. Most of the labs here are actively publishing their findings in highly rated journals and this includes these theses and dissertations. With the thesis or dissertation already in the repository, it is easy to find and cite for future journal publications.

Slide 45

Bepress has Plum Analytics Plum prints on all of the entries in the repository. This helps keep track of references to the thesis or dissertation in different social medias.

Slide 46

So, with step 3 in the IR, it really helps with stages 4 - 6 of our lifecycle. But as Jaime mentioned, just getting to stage 3 was difficult. Everything was done via email and if someone in the program office left, there was no record unless that person leaving. left paper files. Students were slipping through the cracks. Undocumented proposals would show up at defense and publication time that were never approved. There was no digital trail or checklist to know where a student was, so you could not see the entire process and how a student was progressing throughout it. With the lack of transparency and frustration on the part of the faculty committee members and the program office, there was a clear desire and need for a smooth process that left a visible trail that anyone involved could view. There were also concerns with accountability (for both students and faculty), quality control, and accuracy of approvals throughout the process.

When a new program office chair was hired, she came into the library asking if we had any solutions for keeping track of students in the program regarding where they were in this thesis lifecycle. We were already in the process of launching the digital signatures for the final submission, so it was suggested we create two new series in the repository made specifically for tracking student process through this part of their degree.

Slide 47

So, what does this process look like? The student submits to the proposal and defense portals just like they do for the final publication. This has an added benefit of the student getting used to adding content to the repository so when they get to final publication, they already know what to do.

All of these are internal submissions. They will never see the light of day as a publication, but the need to have them in here, even just administratively, has increased. Just one example is that faculty refer their students to us for grabbing copies of past proposals, so they see how to structure their own proposal.

Slide 48

We also set up a similar checklist for the program office as our own checklist to track where the student is in the process. All checklists are fully customizable in the system so we can add and remove and fully edit them as need arises.

Every other part of the process, from digital signatures and registering decisions on approval are the exact same process as our final publication process.

Slide 49

Now we now can see the first 3 steps of the ETD lifecycle process in our IR! Not only the final submission, but also the proposal and defense approvals now go through NSUWorks. As mentioned, we started in the middle, but the success of step 3 allowed us to implement steps 1 and 2 in the lifecycle seen here. Like I said, we had to work on baby steps and get approval and buy-in at each one in order to build a robust system that could house the online ETD lifecycle.

Slide 50

So, what is on our plate now?

Slide 51

The impact of having our theses and dissertations online is great. As you can see from this heat map from Feb 2014 to Feb 2021, our reach for just our student scholarship is worldwide. This is a vast difference from the beginning of this journey where our theses and dissertations sat, uncatalogued and, therefore, undiscoverable, on a shelf for years. This map shows all of our Halmos capstones, theses, and dissertations, including our new fine arts departments from the merge in July 2020.

Slide 52

You can see from the number of downloads each year that we are exponentially gaining in popularity with our downloads. We are hoping with continued outreach and digitizing of our historic theses and dissertations from the new fine arts departments we've gained, that we can keep growing in popularity.

Slide 53

Our goal from the start was to be the most complete college at NSU in our repository with an accurate snapshot of our scholarly output from the Halmos College. Prior to the Halmos College 2nd merger, we were the first college program at NSU to go completely 100% digital with our CTDs. We hope to complete the work and reach out beyond our college to the other NSU colleges that produce capstones, theses, and dissertations.

We recently received a DOI prefix and the next thing on our list after finishing the merge is to add DOIs to all of our thesis and dissertation entries.

We want to reach out to alumni again, with updated contact information, soon to see if we can get more manuscripts made open access. We are about 47% open right now and would like that number to be a little higher. We would also like to contact those that we did reach in the previous outreach event to see if they would be interested in doing a brief survey on the impact of having their ETD open access.

We would also love to connect final journal publications to their original thesis or dissertation within our repository by adding the published article linked citation to the original publication.

The second to last bullet point is a tricky one for us. We would love to investigate how we can change the language in our process to be clearer as to what the faculty member is doing in the digital signature process, but our biggest concern is that we have invested all this time teaching them that the wrong language is right and changing it to the correct way might be confusing.

The last bullet is a bit of a pipe dream for us as I don't think the program office will ever take this off of our hands, but it is a nice thought. We are the only library at NSU that provides this service and having this system in place provides us with the opportunity to train and pass off. This system has alleviated a TON of day-to-day work for us, and they've already managed the proposal and defense approval processes fairly well, so maybe it isn't a far stretch, but having the library be the final stop is just the way it has always been done at the Oceanographic Center.

Slide 54

We hope this presentation inspired you to think outside of the box when it comes to identifying a need that your library may be able to meet by creatively repurposing a tool you may already have in unexpected and unintended ways. We did not originally think to use NSUWorks and the journal review system until we were inspired by other home-grown systems out there that we realized we could not implement at our own institution. We then started looking at what tools we had on hand and if they could be leveraged to meet that need. We are now an invaluable, embedded component of the ETD Lifecycle within our college and play an essential role in the creation and distribution of student scholarly output.

We'd love to hear from you about innovative ways you repurpose tools or have used this system or other ETD stories. Thank you very much!

