



NSDL Technical Network
Services

Community
Evaluation
Summary Report

Spring 2010

Prepared by
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Introduction

NSDL's Technical and Network Services (TNS) is tasked with providing infrastructure and technical services to the NSDL community and supporting activities that bring NSDL technology and expertise directly to teachers and students. The TNS evaluation plan articulates several areas of focus for periodic formative assessment to inform improvements to TNS infrastructure, operations, and services; to ensure that TNS tools and services are in sync with community needs; and to inform business planning. To that end, TNS has initiated a biannual interview process with pathways, partners and projects. The Spring 2010 interview focused on community opinion about the value, utility, and perceived quality of TNS operations in support of services and tools, and community engagement.

The first set of interviews was conducted in March and April of 2010 with 16 individuals representing 8 projects. Subsequent interviews will take place at 6 month intervals and involve representatives from different projects.

Methods

A comprehensive list of Pathways and projects PI's and technical staff was assembled from which a smaller set was selected to represent a range of maturity of projects. Interviews were conducted with PI's and technical staff (1-4 participants per interview) as available. Individuals were assured of confidentiality in reporting of results, and as such, quotes and comments are not attributed to individuals or groups in this report. A semi-structured interview protocol was developed in consultation with Kirsten Butcher (University of Utah) and is included as Appendix A. Interviews were conducted over the phone and recorded and transcribed.

Results

Tools and Services Used

Participants varied widely in their interactions with TNS staff and the tools and services offered, from those that rely almost entirely on TNS tools and services to meet their project goals, to not at all. Collection development services were the focus of most groups' interactions with TNS, with the NSDL Collection System (NCS) the most commonly cited tool (4 of 8 groups). Tools and services identified by the interviewees include:

NSDL Collection System (NCS)	Wiki
OnRamp	ExpertVoices
Search services	OAI
Data migration	Metadata schema development
Controlled vocabularies	Metrics instrumentation

Rationale and Value

Reasons for choosing to use a TNS tool versus building something in-house or using another vendor or open source tool varied among the groups, however several themes emerged. Timing and maturity of tools in relation to project schedules drove many choices, e.g. some projects had developed their own solutions prior to TNS's release of tools, or had timelines that led them to choose other tools rather than wait for TNS products. One group was unwilling to be an early adopter. In some cases tool features were not sufficient to their needs – the storing of content within the NCS was one specific example offered. Others, especially those without a strong technical team on staff, perceived using TNS tools as part of being a member of the NSDL community; it was expected that a project would use them, as well as ensured interoperability. Still others saw using TNS tools as an efficient use of project dollars, allowing them to invest more in collection development and services to their audience as opposed to technical infrastructure.

“I think the clear aspect was a savings in cost and time. And that was, you know, of course the primary motivation, so we can stretch our dollars further for actual stewardship of the community. And of course, we wanted to be part of the NSDL and be seen as an example of how a pathway can start relatively quickly without having to worry about the infrastructure so much. So we both wanted to be a test case for future pathways, and we wanted to make sure the development of [XXX] Pathway went smoothly and quickly, and that's why we went – and of course, you know, it helps that TNS is around and is composed of such great people to offer technical support.”

“I think that the search and harvesting services are part of being the NSDL, so being a part, allowing our materials that we're cataloguing to get a wider audience, and then also bringing other resources to our audience from the NSDL. So that's a key to our mission I mean, it doesn't make sense to be a part of – to say you're part of the NSDL and not participate in that aspect of what's going on.”

“At least there is a good track record now that hopefully when someone joins the NSDL or when there's future projects, that people will be able to take this tool set and not spend their dollars on yet another development platform, yet another cyber learning platform for this kind of work.”

Issues and Barriers

Usability: Though the NCS was the most commonly used tool, it was also cited as needing additional work on usability. The tool accomplishes its intended tasks adequately, but several projects spoke about the need to make it a more user friendly tool for catalogers with a range of experience.

“As much as I like those guys, I feel like they are not really concerned with usability, which is a criticism. I mean, I like them and I think they do good work, but there are issues for the wider field that need to be addressed for their tools to be more mainstream.”

“My impression so far has been that NCS is a pretty nice tool, and I feel like they have been giving it some good attention to deal with some of the issues that have come up. So my impression – not that I’ve used it a lot yet, but my impression is that it seems like a keeper and something that should continue to be supported.”

Flexibility: Respondents commented on the importance of flexibility and customizability in the tools they use. This was mentioned in the context of the NCS – in appreciation of its ability to support a custom metadata framework— as well as in the context of some of the communication and contextualization tools. OnRamp was cited as being not very flexible and something that one group would not use again.

Development timelines: Development timelines were cited as an issue for several groups, in different ways. As noted above, one group perceived the TNS development timeline to be 6 months behind what they needed, and they were uneasy about being a test case for newly released services. Other projects cited the difficulty of retrofitting their previously existing systems to be NSDL-compliant, and the ripple effect that can have on other related technical systems. Many projects were interested in integrating with the Strand Map Service as a recommender, but were unclear about TNS’ priority and timeline for that as well as how the standards ID “problem” (SMS versus ASN) would be solved.

“The only other thing that I would put into this is – and there may not be a solution to this – a general sense of confusion about what TNS’s plans are in terms of deliverables over various timelines. You know, I know there are things that they would like to do and things I think they’ve said they’re going to do, but it’s all very ephemeral in some ways. You know, the strand map services is a classic aspect of this, where there’s a lot of different talk with TNS about things that can come about on there, and I know they’ve presented some things to NSF. But if you were gonna ask me what TNS is planning to have done with the strand map service in the next six months, year, two years – you know, any of those timelines – I would not be able to tell you right now. I wouldn’t be really clear how to find out, other than to call up Tammy or Mike.”

Awareness of tools available: One project spoke in detail about a concern that there is not enough publicly, easily available information for potential NSDL projects to know what TNS has to offer, particularly while in the proposal and project planning process.

“I’d like to make the suggestion that use of the NCS should be promoted more by TNS.... I don’t think we would’ve known about the NCS if it wasn’t for our previous interactions with the people who are engaged in it.”

Although discussed in more detail in the community engagement section of the interview, several projects indicated that they would like more regular communications about ongoing tool and service development, with specifics on features, functions and release dates so as to most efficiently and effectively intersect with their project workplans.

“We don’t want to reinvent the wheel, so it will be very helpful if TNS can publish their – the upcoming year plan with a tentative timeline with the features. Then probably we can plan our project accordingly.”

Support for Project Goals

Interviewees were asked “Is TNS helping you to meet your project goals?”. The response from all who have had direct contact with TNS was a resounding “yes”.¹ Many groups commented positively on their personal interactions with TNS staff and the level of service they had received as well as detailing again the specific tools used and how they aligned with their mission to reach their specific audience and allowed them to distribute and create content.

“Oh, yes, definitely. I mean, I think we would be a lot farther back – I mean, of course we have some decisions to make before us, depending on how far we’re gonna go with these tools, but it did really help us learn about digital libraries and cataloguing and the features available and it was a great test bed. And I think some of what we made we’re definitely going to keep, so I think overall it’s been a pretty good experience.”

“They definitely are receptive. They’ve helped a lot. They have helped Joe and Sam² when it came to technical issues and potentially changes and modifications, so they’ve been great at that. I mean, you know, I think for what they do they’re pretty unique when it comes to the flexibility and the services they provide.”

“In the sense that the ones that we are using right now are, and I’m looking to the future to take advantage of other things to meet new initiatives that we are now engaged in, in particular standards, standards issues.”

One group characterized TNS as a valuable source for guidance on and models for metadata integration and services development. They look to TNS for expertise and advice in how they (the project) can assist with setting up services and API’s and look to TNS’s experience in offering best practices to the community. The context in offering this comment was both an appreciation of TNS’s skills but also a desire for more contact and activism from TNS in this regard in the future.

Project goals not supported by TNS

Social networking features and content management were most frequently cited as project goals not currently supported by TNS tools and services. Projects rely on other open source or vendor based tools to meet these needs, including ning and Drupal. Several projects mentioned the desire for TNS support for Drupal, and an NSDL users group on this topic. The discussion of goals not supported seemed to

¹ One group, a mature Pathway with in-house technical staff and tools has operated predominantly independent of (and predating TNS) so this question did not apply.

² Names of project staff are fictionalized.

focus mainly on technical development and functions, and led naturally into the next area of discussion on the projects' priorities for the year ahead.

“So the only part that we’ve really had to go outside of TNS for is the social networking, and that’s not a problem. I can’t imagine why TNS or NSDL would develop their own social networking interface when there are so many good – not so many, but you know, there’s a few out there that are free and that do an amazing job.”

Priorities for next 12 months

Although there were a range of priorities identified, several strong themes emerged across multiple projects, focused on enhancing resources and metadata in a variety of ways including standards association, and other types of contextualization and personalization. In terms of standards association, groups were interested in integrating the CAT suggestor tool into their own systems, and utilizing the Strand Map Service to recommend resources aligned to standards as well as a “view” on their own collections. Creating and exposing connections and personalization aligns with many of the prior comments regarding social media integrations. Although there is not the expectation that TNS will develop social networking tools per se, guidance on selecting and integrating, and interoperability is needed. The idea of “reusable widgets” that are interoperable and available to all projects was put forth by one group, with the notion that TNS would offer guidance and leadership in this vein. The NSDL annotation framework is regarded as critical to supporting the effort to collect commentary and other value-added information and relationships about resources. The ability to customize ones own site with NSDL tools such as Expert Voices, OnRamp and the SMS was also mentioned by multiple groups.

Other priorities include completing the accessioning process into NSDL, and assistance with outreach and evaluation of impact. One group cited an interest in the STEM exchange, but was unclear what exactly it was or how that might proceed. Another is interested in more community discussion about what it means to have your object in the path of the user.

Community engagement

Interviewees were asked “Can you describe for me what you know about the TNS roadmap process and strategic planning?” with a follow-up question and probes about their participation and preferred mechanisms in offering feedback. The responses and discussion in this section of the interview resulted in a challenging paradox. While all groups were keenly interested in what TNS was planning, and wanted to be kept apprised of strategic plans, priorities and schedules, they also admitted to a lack of time to devote to offering feedback via responses to emails or visits to the wiki. All the groups indicated some familiarity with the existence of the RoadMap documents and their intent, but their understanding of when and how they may have been solicited for feedback was unclear.

“But the thing is, you probably did <ask for feedback>, and I chose not to because I was so busy doing other things. So I think that NSDL has been really good about providing opportunities and getting the word out on everything from the collection development policy to whatever. But it’s – I think in general it’s really hard to provide in-depth feedback on some of these documents or ideas just because everyone is so darn busy.”

Discussion about specific mechanisms for transmitting information and gathering feedback did offer some helpful suggestions however. Participants expressed a preference for more targeted, directed communications, with personal follow-up. Emails directed to the group as a whole in which those interested are instructed to respond by visiting and posting comments to a wiki was seen as too many steps and not in the path of their daily work routine. It was suggested that TNS should be aware of the staff of the pathways and their role or expertise, and direct emails specifically to those people. For example, if technical expertise and advice is being sought, ensure that messages reach the technical staff of that project directly. Working groups were cited as an efficient means to accomplish this, as with the current metrics work group. It was suggested that when crafting email communications, the subject line and introductory passage should clearly state that a response is needed, and by when. Additionally the content should be contained within the email and not referencing a link if possible. Despite the projects' interest in general social networking features for their projects and audiences, a personal contact is the preferred means to sift out issues and discussions that are important enough to warrant participation. In that vein, follow-up with personal phone calls for key issues (as with this interview process) is welcomed.

"They – you know, we had presentations on that and they told us where they were going, and specifically there were things about the NDR API and various features they were adding. Those were interesting to us; I don't know how much, you know, we really are counting on those, how much of our development is really tied to that. I think it's interesting to us, but our development is not strictly tied to those deliverables. I think it's a decent pathway for TNS to take; however, I also feel like there's some issues that are coming up with us that we would potentially want to see on this roadmap, especially to do with Drupal, especially to do with the annotations. So it's a good strategy; I think it's a dynamic one, and I don't think it's gonna be fixed in stone, and it will just – you know, it will be a five-year plan or something. It's a good start"

Summary

One respondent summed up the perceived role of TNS in the NSDL community of pathways and projects as follows:

"I think the expectation is a partnership where not only do they help us set up pathways and set up the infrastructure and support the infrastructure, but we also give back to them critical feedback, suggestions, and even tools like ones that we've created here with their help that we're using now to put back into the community. So not only are they technical support, but they're the broker for new ideas and emerging applications to go back into the NSDL."

This statement reflects the overall understanding of those interviewed and provides a clear vision and mission for TNS of the way forward.

The objective of our evaluation plan is to gather formative data to inform improvements to TNS infrastructure, operations, and services; to ensure that TNS tools and services are in sync with community needs; and to inform our sustainability planning.

This semi-structured interview is designed to gather formative data on community opinion about the value, utility, and perceived quality of TNS operations in support of services and tools, and community engagement.

Targeted participants will be primarily grantees that are collaborating contributors (via the 15% agreement) to the TNS budget allocated to provide these services, however selected other work partners or potential partners will also be invited to participate.

Intro:

- Thank you for agreeing to spend this time with me and share your views and insights into the current and future work of TNS.
 - Your feedback is valuable in ensuring that TNS is on track in meeting its goals both operational and in community engagement.
 - I have been tasked with gathering evaluative information for both RC and TNS and your comments will be confidential unless you wish me to bring them to the attention of a staff member for immediate attention.
 - I have a set of questions to guide our discussion, but feel free to comment on additional topics you see as important.
 - This is not a test of what you know or don't know – we just want to get a sense of your current perceptions of the work TNS is doing.
 - We'll be focusing on TNS operations in support of NSDL services and tools, and community engagement efforts. We'll talk for about 15-30 min.
 - Any questions before we get started?
-
- **Services and Tools – Use of and satisfaction with TNS services and EduPak platform/tools (both overall and individual services/tools)**
1. Can you describe to me what you, personally, know about TNS and its tools and services?
 2. Please tell me about any TNS services and/or tools that you are currently using.
<If response is “not using any services/tools”, follow-up: “What are the reasons that you aren't using any at this time?” >
 - Expect to have responses fall into these categories:

- metadata development
- data migration
- cataloging – using hosted NCS/installing NCS/cataloging training
- collection accessioning/updating
- jOAI

3. What led you to use these services?
4. Have you experienced any issues or barriers to using TNS tools or services?
5. Are TNS services helping you meet your project goals?
 - a. (Positive follow-up): In what ways?
 - b. (Negative follow-up): Can you tell me more about that?
6. Are there any goals in your project that are not supported by TNS tools or services that you would like to be supported?
7. Are there any additional supports you need to be successful in your role in the NSDL community?
8. What are your priorities for the next 12 months and what TNS services do you anticipate needing to meet these goals?
9. Can you tell me what you understand the TNS role and goals to be?
10. What are your perceptions of the TNS role and goals as you understand it?
 - **Community Engagement – degrees and venues of participation, perceptions of personal engagement and quality of community process, overall satisfaction with influence on process and annual roadmap outcomes.**
 1. Can you describe for me what you know about the TNS Roadmap Process and strategic planning?
 2. Were you able to provide feedback during the Roadmap development process?
 - a. If yes, through which mechanisms (nsdl community wiki, PW meeting, annual meeting)
 - b. If no, what prevented you from doing so?
 3. Did the options available to you for comment work for you? What worked or did not work for you?
 4. Do you feel you were able to provide the kind of feedback you wanted to?

Thank you again for spending this time with me. You've given us a lot of great insight and we really value your ideas