Hi, all! Please use this space to share points of discussion for our panel at the NDSR Symposium. We'd like to use this doc to give and receive previews of your fellow participants' key points in case they may complement or constructively contrast. There's no need to penetrate deeply into detail here -- just bullet points are fine, to give others a sense of how they might respond if they'd like.

The outline below breaks down the structure of our ~hour and provides space for each of you to comment on each major prompt (in alphabetical order here, not reflective of how the conversation will necessarily go), but do not feel compelled to address each issue if they are not all of equal importance to you.

Feel free to raise any questions right here, or directly with Karl and Morgan.

---

1. Session introduction, 5 minutes
Morgan will introduce the audience to the discussion participants, the concept and context for our discussion, and generally how we will conduct it.

---

2. Participant self-introductions, 5 minutes total (~1 minute for each participant)
Each discussion participant will briefly provide context for the network experience from which they speak. Suggested metrics for describing your "network" include:
- size;
- level of consensus required for goal-setting;
- level of formality in communications/interactions;
- level of trust among network members.

Do not feel compelled to respond to each of these prompts at length. In the interests of time and distinguishing your experiences, please feel free to respond to those that may reveal something distinct about your network. Karl's example description of NDSR below may be used as a guide...

Karl:	Size: ~50 currently, with at least 8 more coming over the next two years and others possible as the NDSR label gets attached to future cohorts. Potentially of interest that NDSR will be a network growing at a somewhat predictable rate.
	The level of trust among members of this network is relatively high because we share an experience as Residents--one which itself emphasizes collaboration across boundaries within and sometimes across cohorts. A possible risk in this model is that its expansion will dissipate this sense of shared experience.
	Level of consensus: Unclear. The network hasn't attempted to define any collective objectives yet and so lacks any decision-making process. NDSR cohorts gain experience achieving consensus in their small groups in order to perform outreach and/or produce documentation or scholarship, but this has not yet been tried at the wider, inter-cohort scope.
	Level of formality: Right now NDSR is a non-homogenous network in terms of its communication methods and levels of formality. Communication currently happens via a Google group email list and informal social meetings that residents organize for themselves. Future possibilities include an official NDSR wiki, blog, and/or group chat venue, but depend upon the goals that current and alumni residents want to pursue.

Alex:	Network of BC unclear - 26 institutions are part of BCC; the Executive council has been engaging in strategic planning for the past five months with the goal of producing a 3 year strategic roadmap - current plan is to outline goals and directions for existing committees. As a core output of our work, software development has been focus. BCC' help desk functionality for bugs and enhancements; public google group for members and non-members to be able to capture and prioritize sustainable release tasks; monthly community call is the fundamental nature of forming a consortium; value the community but perhaps not yet translating enough to join; incentives for changes to software; still in stages of developing processes for prioritization of development tasks
Bethany:	Will very briefly describe how grassroots leadership works in DLF + a little about how we're organized, along the lines suggested above.
Ed:	
Jessica:	The Software Preservation Network (SPN) coordinates software preservation efforts to ensure the long term access to software. Our work currently involves: legal licensing and information policy research; an international registry of software collections; and software development contributions to technical infrastructures that facilitate long-term access to software. SIZE: 7 working groups including ~25 people overall; broader community of stakeholders is currently represents ~36 different institutions LEVEL OF FORMALITY/LEVEL OF TRUST/CONSENSUS: The Working Group Coordinators (7 people) meet monthly and we communicate between as opportunities come up or decisions need to be made to allow a group to continue moving forward. We have developed trust over the last 8-9 months following the SPN Forum last August. The forum was an opportunity to work together to arrive at consensus around those seven categories of work. Each of the working groups has their own way of working internally, but we have reached group consensus on the desire to document transparently so that all output can be potentially be reused/accessed There is a growing level of trust internally and it builds with every new report out, distributed ownership over those 7 areas of work, and the celebration of their accomplishments; still low trust among what we hope to be the future scope of membership And there is a the future development of cohort within the network - software preservation and emulation practitioners that begs the question of the information exchange and relaitonship of existing WGs and the project cohort (Question: How does the pursuit of that public/private partnership effect perceptions of the network's trustworthiness within the field?)
Laurie:	DR ● Size: 4 - 9 ● level of consensus required for goal-setting; totally natural, comfortable agreement. ● level of formality in communications/interactions; constant and informal

	● level of trust among network members. Very high
	DR more broadly
	  ● Depends on which one - core data refuge team = 3- 8 people with tons of trust, easy consensus, very informal. Broad data rescue efforts = dozens, hundreds, thousands, various goals, relatively low level of trust. Libraries+, relatively more formal, medium level of trust, we'll see about concensus. We've hired consultants!
	
	  ● Size: hundreds - thousands
	  ● level of consensus required for goal-setting: unknown - we hope that people will set their own goals, its been hard to get that to happen.
	
	  ● level of formality in communications/interactions; formality has helped in some cases, but there have been efforts to formalize communication as a means of control.
	
	  ● level of trust among network members.
	  ● various.
	
	Libraries Plus network -goal!
	Size 60-80
	Level of concensus: medium
	Level of formality: regular checkins, goal setting, working groups
	Level of trust: high

3. Discussion, 30 minutes
Karl will facilitate a discussion among the invited participants. Participants have chosen the following prompts (or general approximations of them!). Please use this space to provide a few points that you think are most important to your response. This will help other discussants to get a sense of each others' perspectives in advance, to help each other prepare for a more responsive/integrated discussion overall. We hope to do the best we can with some limited time, and will look for opportunities to interweave the discussion among points of confluence and dissonance among your experiences.

3.1 Question: How do the formal or structural qualities of your network reflect the problem that it aims to solve and/or the community that it aims to serve? Have these changed over time, or do you expect them to? [See our discussions of [Diverse Models]]

Alex:	Being open to iterative, emergent problems that come <u>as a result of</u> technological access and use. BitCurator Project and BC Access both designed to address perceived gaps for archivists. The latter project sought to develop approaches for archivists provisioning access to born-digital materials -- yet it became quite clear that the community of use was still very much still in a period of development. Researchers weren't yet pressing archivists for reading room access to born-digital materials. And with few exceptions, archival institutions were not yet presenting public access to born-digital materials. Former project - uptake came from outreach and helped encourage familiarity and thus use of tools.
Bethany:	Will likely discuss pragmatic, practitioner-driven quality of DLF, how the rhythm of the conference calendar works for us, & (in terms of changing priorities/activities), the

	impact of opening up membership to liberal arts colleges, diversity/inclusion initiatives etc.
Ed:	
Jessica:	We have been moving in the direction of formality since August, in large part because the scope of what we are trying to accomplish requires alignment (not only across cultural heritage, but across several sectors). It is this engagement with other sectors that really calls for some level of formalization - to approach the collective impact model with some sense of a united front around software. We roadblock ourselves in this particular space when we choose institutional stake over a topical/issue-specific umbrella. Already, several institutions as well as discrete efforts have approached some of the same software companies. This is problematic. Unless we are all approaching those same potential commercial partners with a message of unity around our professional goals, all we do is make the case for a new commercial service, and then we find ourselves hamstrung to the terms set by those commercial partners - several leaders in our field have pointed to journal subscriptions as a clear example of this. While library publishing may be changing the tide, we are in a moment with software preservation where a clear, unified voice regarding reuse cases and terms of access is key. In Nicole's paper, where she does a beautiful job of describing some of the issues surrounding software and its importance as a cultural object - she discussed copyright as one of the major legal challenges. In the now dominant software-as-a-service model, licensing is at the heart of the conversation. Copyright applies to older, legacy software, but with software as a service, we don't "own" a copy of anything. This drives the importance of collective impact and the pursuit of a nuanced and mature approach to commercial partnership. I think there are two important parallel directions for this effort that result in two different models: broadening adoption and participation in the use of software preservation and emulation workflows is essential for addressing the service needs of the full spectrum of cultural heritage institutions. That calls for more diffusion and distributed ownership over the work. Also, in terms of legal work, technical infrastructure scaling (preservation and access) for existing digital preservation consortia, digital forensics triage for software on existing installation media, etc - this also calls for distributed ownership. However, for the subset of organizations that are not members of these consortia but who need to be able to provide access to software-dependent collections.data, centralized services may prove to be key.
Laurie:	We've had a pretty consistent goal for our various networks, but the biggest question has been whose voices should be heard in the network? In parts of the network, there have been attempts to build consensus about process before we have a shared understanding of the varieties of stakeholders who need to be involved. The notion of a structure has been at the heart of the changes to the network we've seen. What role for tech community, for broad public, for data curation, for scientific community, for libraries, for gov docs librarians, for federal data producers, etc? With an opt-in network of volunteers, we also have the question of whose job is this?
3.2 Question: Your network models intentionally bring together divergent perspectives. What kinds of differences or cross-contextual conflicts emerged among their members? [See of [Culture & Conflict?](#)]	

Alex:	Establishing common terminology; BitCurator was an applied research software development project emerging from an inter-institutional, interdisciplinary collaboration (e.g., "what do you mean by archive") //from BCC perspective, academic libraries and foundations, tools are being implemented but documentation so far has spoken to different audiences
Bethany:	Diversity of professional roles, types of orgs, job expectations/freedoms, etc. -- not yet much international/linguistic diversity, but can discuss how I've seen that play out in other orgs & what I predict we might face as we grow
Ed:	
Jessica:	So, when we started and even now - if you look at the makeup of our community - it privileges the cultural heritage perspective. The reason for this is clear, our perspective and focus are shaped by our embodied experience as, mostly, curators and archivists. However, thanks to Fernando Rios and Alice Bishop, we now have several CLIR Software Curation postdocs that have expanded our scope and our thinking about next steps to be inclusive of a broader spectrum of use cases - within that group there is expertise from a broad spectrum of fields. More recently, we have partnered with Roberto DiCosmo from Software Heritage and their new Metadata Specialist Morane to work together to contribute to a shared body of linked open metadata work for software preservation. SH staff are almost entirely computer scientists - and I think we not only have knowledge to share, but we amplify our respective impact in terms of raising awareness for software preservation because we operate in distinct but complementary communities of practice - Roberto is ACM, IEE - we are PASIG, NDSA, DLF, etc. In terms of what SPN's ultimate goal of preserving software (not just what we currently consider to be legacy software) - I think that again, engaging with industry to participate as a type of member will represent a cross-contextual conflict - Our Keynote speaker yesterday spoke about radical models of leadership, that walking that line between public and private and negociating a more nuanced a mature discourse between our field and for-profit industry may prove to be a key component of radical cultural heritage leadership. We don't know what this will look like yet in terms of preserving software.
Laurie:	An endless, and richly useful collection of perspectives. The term metadata has a multiplicity of meanings. The burgeoning data activist community outside of libraries has a set of vocabularies that were new to many of us, and vice versa. Issues of trust as a technical or social problem was one point of growth for us all. Even issues of speed.
3.3 Question: Given that a leadership network can change perspectives, directions, or objectives, have you discovered anything about your network's core values, and how did they guide your work throughout? [See Values]	
Alex:	Community uptake by engaging in the tools of the network; Core values had to be established and grown through experiences and shifts in the communities of interest;

	in BC Access project, priorities shifted to developing redaction tools as a "known problem." Also - BCC model addressed concerns of sustainability to ensure tools stay vital to community interests; participation in the community and goals/desires/needs of the community central value - align or push community in new directions; lots of institutions are interested in adopting tools in BitCurator suite but might not necessarily be starting with disk images which is the first step in the workflow
Bethany:	May discuss strengthened social justice mission/consciousness of social contexts for tech and how that has impacted types of projects being taken on.
Ed:	
Jessica:	So, thanks to an uptick in interest and activity, we've advanced from a scope statement, to a clear need for a mission, vision and values. These are currently in development in terms of publication readiness but in general, what we all agree on is the importance of transparency, distributed ownership, community-driven design - these values serve the broader goal of alignment because they build trust among members - beyond trust, when an effort relies on a volunteer network (which SPN still is), the value that those individuals derive from the experience of participation is key. Everything/accomplishment/benchmark should be celebrated as their accomplishment - people have to be reminded that the time they volunteer is resulting in concrete outcomes that get us all that much closer to preserving software to ensure meaningful access to our data. By extension - I think that something as big as software preservation can't be left to a handful of institutions - there are certain institutions that are well positioned to take on pieces, as I mentioned before, but the long term success of something this ambitious is to broaden the number and type of institutions taking ownership over some aspect of the work and helping to shape the roadmap - otherwise, the ultimate solutions may not address their contextual needs.
Laurie:	There seems to be different emphases across open source and ethical cultural heritage communities that have been really valuable to learn from. Also, this network is pretty clearly trying to help libraries think through their values when it comes to collection priorities.

4. Open Q&A
Morgan will facilitate questions from the audience for a discussion among guests, Karl, and audience members. In the unlikely event that no questions emerge from the audience, we will have bonus discussion topics prepared!

Question: scope of the field (avoiding narrow definitions - LAMs exclusive practices and ways of conceptualizing of the work) - and so, if we are doing work that requires us to be able to articulate what the work is (and that's zoom in zoom out), how to we facilitate alignment or coherence so we can more effectively interface with not only other sectors but other disciplines? Sometimes I wonder if labels like "information system designer" would help to develop a sense of identify where broader inclusion of what cultural heritage is would be baked in?

Mabye one recommendation for residents - particularly around mentorship would be to look for

professional mentors OUTSIDE of "LAMs"

Or pulling models of cohort learning from things like those software bootcamps that have 99%placement (I can't think of name - there are several). One - if we want to interface with commercial partners, we might want to understand their collective ways of learning

Earlier I was talking with the two NDSRs at the table - and mabye one way to ease them into expansive professional identity/role (understanding of who their communities are) is to match them them with CLIR software curation fellows - because while they are embedded in LAMs, they have their own developed sense of identity that is derived from their diverse scholarly communities of practice - computer science, neuroscience, etc.?

Megan was interested in our talking points - conversation, sharing it out to all attendees of the symposium
When is it appropriate to start visioning? When do you become more than four people talking about a problem?

Each touching on several acronym communities - the perspective addresses a wider range and that solidified the desire to
Put it somewhere -

OSF - using the tools of cognate communities of practice for documentation