ITPC Report 2018-19

This report summarizes the activities and recommendations of the 2018-2019 Information Technology Policy Committee (ITPC). The ITPC received the following charges from the Senate Agenda Committee:

1. The ITPC shall work with the incoming ITS Vice President to ensure that, as a matter of policy, ITPC, along with ITS, has a formal role in the planning and evaluation process related to the design and delivery of ePaws and any other ongoing and future institutional software planning and rollout that will have a direct effect on teaching and research.
2. The ITPC, working jointly with ITS and the Research Computing Advisory Committee, shall develop a set of recommendations regarding IT services and staffing to broaden and deepen ITS support for research computing, and present the plan to the Senate by Dec 2018.
3. Given that ITS and the Provost's Office are in the midst of an outside consultant review of cloud storage architecture and planning across the University, the ITPC shall collaborate with ITS, and other relevant Senate committees to return in Fall 2018 to the 2016-2017 approved Senate resolution on backup, and the 2017-2018 charge to multiple standing committees to coordinate with ITS and other stakeholders to design a comprehensive backup/data storage plan for academic and research computing and develop an appropriate strategy to implement it.
4. The ITPC shall work with ITS and the ad-hoc Co-op Evolution Assessment Committee to provide an assessment of the rollout of the new IT plan for supporting Co-op Evolution by the end of the fall semester.

ITPC Structure and Activities

ITPC Members

Nicholas Beauchamp, CCSH
Cole Camplese, ITS
Peter Desnoyers, Khoury
Joshua Hertz, COE
Stratis Ioannidis, COE
Amy Lu, Bouve and CAMD
Oyinda Oyelaran, COS
Mirek Riedewald, Khoury (chair)
Paul Whitford, COS

Senate contact: David Kaeli, COE

ITPC continued the successful model introduced by the 2017/18 ITPC to include ITS leadership in all communication and meetings. ITS was represented by Cole Camplese, the Vice President for Information Technology and Chief Information Officer at Northeastern University.

Major Activities

ITPC met as needed to discuss matters related to all charges. In addition, most of the work took place offline through data collection and sharing via document repositories and email.

ITPC members communicated with pre- and post-award staff at their colleges to collect information regarding charge 1.

Cole Camplese provided updates about the status of ITS hiring and services, including future plans for a university data-backup plan and possible rollout of two-factor identification for access to university resources. These updates were discussed in ITPC meetings.

Primary Outcomes

ITPC generally felt that IT services and staffing are heading in the right direction. Exploration related to the four charges did not reveal any patterns that would require immediate correction or intervention. The situation should be re-assessed as ITS progresses further with respect to software rollout, ITS staffing, deployment of ITS services, development of concrete options for a university-wide backup plan, IT support for Co-op evolution, and development of approaches for increased security, including the possibility of requiring two-factor authentication for access to university infrastructure. The remainder of this section discusses outcomes for the individual charges in more detail.

Charge 1: Participation in Software Planning and Rollout (in particular ePaws)

ITPC focused on software and IT services related to pre- and post-award grants management. Members of ITPC communicated with research administrators (RA) in their colleges to find out:
- Overall satisfaction with the software rollout process, in particular for ePaws.
- If there were suggestions for improvements.
- If they felt their voice was heard in the process of deciding about software changes.

The key responses are summarized below, grouped by college. To preserve some notion of anonymity, college names were removed.

Major suggestions:
1. Consider changes to document update functionality in ePaws to reduce the perceived risk of document loss or improper versions being used (see ePaws concerns in the Appendix).

2. Simplify award spending reports, so that PIs are better able to understand and track their spending. Khoury has established a widely appreciated system summarizing grant spending similar to a credit card statement. This may be useful for other colleges as well and could be explored by next year's ITPC.
3. Create an activity dashboard to give faculty quick and easy access to the state of ongoing processes such as contract negotiations, so that they can see where the process is stuck or what material is missing. This similarly applies to information about the stages of contractual payment processes.
4. Create a centrally located repository for all materials pertaining to each grant proposal and award, and maintain it throughout the award's lifecycle. All RAs (departmental, college and central) should have the same access to it. This should also take into account interdisciplinary grants for PIs with appointments in multiple colleges. RAs from all participating units should at least have read access for the grant account information.
5. Support for automatic generation of the *current-and-pending* statement.

College 1: The grants team is happy with the ePaws rollout so far. They feel that they were sufficiently involved and that ePaws will make their lives easier. They look forward to new features that ePaws will offer for post-award management. The grants team was also consulted by Joan Cyr to evaluate aspects of ePaws.

College 2:
"Are you satisfied with the rollout process of ePaws? Neutrally. I can work within any system provided, and they all have their pros and cons

Do you feel that things could be improved? Absolutely, hopefully 2.0 does this somewhat

Do you feel that your voice was heard in the process? Yes and no. They listened as much as they could, but are constrained by what the senior leadership wants to do anyway, and there are always differing opinions amongst dept./college grant admins (and really all variations of research admins) on processes and work styles so it's hard to actually appease them all, especially if conflicting needs/preferences exist which certainly do

Do you have any suggestions? Mainly that a centrally located record or repository for all and any materials pertaining to each proposal and award throughout its lifecycle be created and maintained through it and all RAs (departmental, college and central) have the same access to it (this would include proposal materials, both internal (cost share memos/approvals F&A waivers, course buyouts approvals) and external (proposal materials submitted to the sponsors); all award materials (notices, terms & conditions, agreements (DUA, MTA, etc.), any post-admin requests (NCE, prior approvals, amendments, etc.); all IRB/IACUC/biosafety, etc. materials; investigator materials (trainings, cert, COIs etc.)); More minor - a current and pending report to be auto generated, as Coeus has, would be lovely; someday, include award finance management data/info/software too so it's literally a one stop shop"

College 3: "The ePAWS Phase I rollout isn't until the Spring of 2019 and as such, cannot comment on the end product. The [college name] will be participating in user testing prior to launch. That said, last spring they held two town hall sessions to hear what the end users would like to see post development. All end users had the opportunity to be heard."

College 4: The [people interviewed] reported that although their feedback has been solicited, they are unsure whether their voice has been given sufficient priority in the rollout and design of the ePaws system, as the rollout of the next system has not happened yet. They are eager to see additional efforts be taken in making the next revision more transparent and easy to use on both the support staff-facing and faculty-facing sides of the system.

Specific suggestions for improvement include:
1. *"Greater transparency for faculty during the contract negotiation process*. Contract negotiation can take several months. Faculty are sometimes unaware that contracts are being held up by a trivial thing such as the need to submit a Conflict of Interest form. It would be very helpful if faculty could log on to see a real-time feed on the negotiation process, the stage that it is in, what is causing a delay, and receive status updates. This is currently tracked manually using an Excel spreadsheet, and the ePaws system does not monitor (or report) contract negotiation stages.
2. *Current and Pending Document automated generation*. C&P Documents are required by multiple agencies, and abide by standardized formats. All necessary information is already available in ePaws; a one-click way to auto-generate a faculty member's Current and Pending Activity document would save considerable time across campus and lead to fewer errors in the process. Note that such system is standard practice, and has been in place at other institutions for a number of years.
3. *An activity dashboard*. Since all of the contract information is present in the system, a dashboard of activity that shows summarized data on current, past, and pending proposals for an individual faculty member would be useful. Similar dashboards would be useful for support personnel and administrators, showing data for all activities within their purview.
4. *Increased success rate and other "metadata" transparency*. Allowing access to statistics and metadata, and correlating them with the success rate of proposals, perhaps limited to certain personnel, would allow support personnel to identify areas that require focused attention or effort. Two examples of the use of this data include (a) finding specific faculty members that may require mentorship, and (b) assessing and conveying to faculty, e.g., the correlation between a proposal's success rate and how soon in advance of the due date/time the proposal is submitted."

Charge 2: IT Services and Staffing

ITS staffing had been identified as a major pain point in previous years. Based on the information collected by ITPC this issue is being addressed by the university and by ITS

leadership. Since many positions have only been filled recently or are in the process of being filled, ITPC felt it was too early to evaluate the impact on IT services offered.

Report by Cole Camplese on February 7th, 2019: "The newly created position of Associate Vice President for Research Computing has been filled. Dr. Spencer Pruitt has accepted the position and will begin at Northeastern on March 4th 2019. As AVP of Research Computing, Pruitt will join the ITS Senior Leadership Team and work to develop the Northeastern research computing strategy and a plan to bring it to fruition within the Northeastern 2025 framework. He will lead the existing research computing team and add additional staff as approved by the Provost in late 2018 (see Org chart below) in the coming months to make Northeastern more competitive in its support of research computing. Pruitt will prioritize the building and sustaining of partnerships with faculty, staff, students, and IT providers to better understand and meet the community's broad computing and training needs."
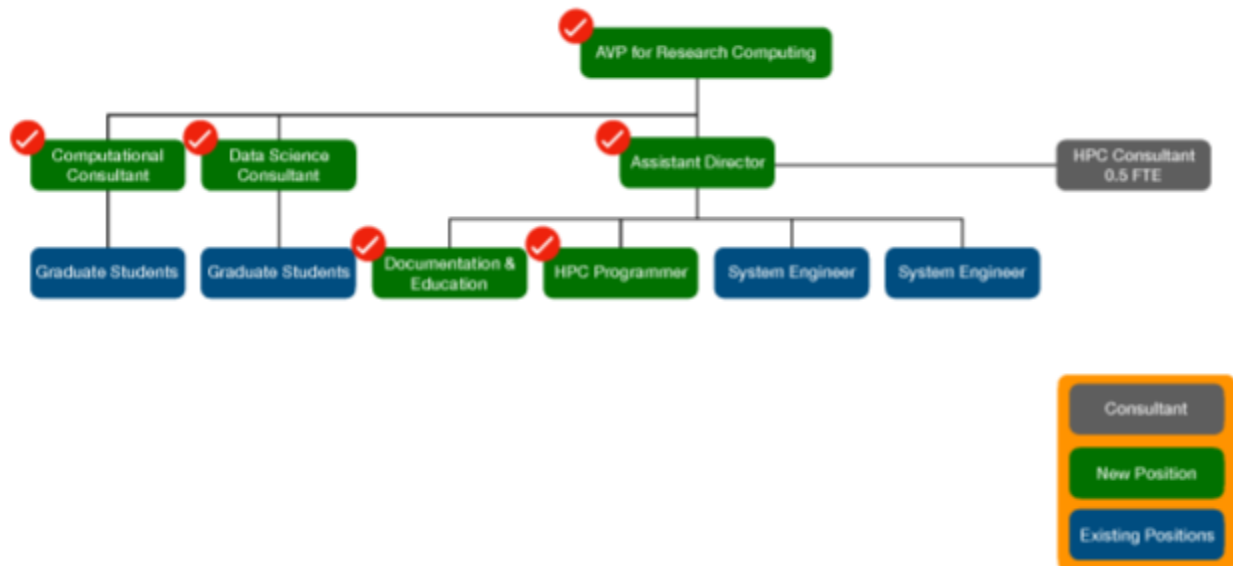
ITS org chart. Check marks indicate funded new positions.

ITPC also recommends that ITS establish a system to better track and follow up on input from the user community, e.g., about issues faced related to licensing of popular software, like this one:

"One little suggestion to the organization of the ITS site. For the software download page, it seems that many of the softwares are not included there and faculty members must request the software download either through an install request or go the the Office 365 site. Recently an increasing problem I have observed with my lab is that a lot of the Acrobat software for reading PDF docs have been asking for log in info because Adobe only allows two log ins per account. Therefore, it became very difficult for some labs with multiple laptops when RAs have exhausted their log ins. The faculty member does not get extra log ins either. So we would have to log out of our own desktop/laptops to be able to use the work computers, which has caused a lot of

unnecessary delays. Any chance to increase the log ins allowed for faculty members with multiple work computers?"

Charge 3: Backup and Storage Plan

Plans for a university-wide backup service have matured, but ITS is worried about the tension between cost and functionality. This will require a broader discussion with potential users. ITS also pointed out the availability of free cloud storage through Office 365 and OneDrive, which may offer sufficient functionality for many users:

"ITS plans to provide back-up as a service in the future. We are currently piloting an enterprise product, CrashPlan, that if successful will provide a modern system-level backup service for any University owned machine. Currently, no funding has been provided to support the costs of this solution, so ITS is working to make this service available at a low cost to end users. CrashPlan has been used to replace existing users of the MyBackup Service that is no longer offered.

In addition to full system backup, ITS provides unlimited cloud based storage for all members of the University community through Office 365 and OneDrive. While not an automated backup solutions, OneDrive provides an environment that permits the secure storage and sharing of digital files. There is no cost for this service for all members of the University community." (Cole Camplese)

Charge 4: IT Plan for Co-Op Evolution

ITPC received a report from ITS: "ITS has worked closely with members of the Provost's office to address many of the ongoing IT related issues that have hampered NU Careers. ITS has added redundancy, load balancers, and critical systems monitoring to the existing environment to provide new levels of stability, reliability, and business continuity. ITS is fully engaged in overseeing system performance and continues to work closely with the NU Careers group. ITS is also a member of a review group looking at future system needs." (Cole Camplese)

Recommendations

We strongly recommend that **high-level ITS leaders continue to be appointed as ITPC members**. The committee is mindful of the time constraints faced by faculty and ITS leadership, and organized all meetings and electronic communication accordingly. Cole Camplese's presence and participation have been essential for effective communication.

ITPC also believes that while progress has been made, university leadership can further **improve involvement of future users during early planning, pilot testing, and product selection for major software products and IT services** affecting teaching, research, and award management.

Our discussions with faculty and RAs revealed several promising ideas and suggestions from end-users of major IT services. We recommend **a system be established where such suggestions are collected and shared with ITPC, IT staff, and university leadership**. University employees should be able to quickly and easily track the status of all suggestions, so that no good idea "falls through the cracks." In addition, ITPC's role should be advertised more prominently across the university, encouraging more employees to share their IT-related feedback and suggestions with ITPC.

Since pilot studies of the CrashPlan **backup service** are ongoing, we recommend next year's ITPC be receiving a **detailed report about the outcomes**, including tradeoffs between cost and functionality. The process of report evaluation and decision-making should involve a representative group of potential end-users from all colleges. This may require involvement of faculty who are not members of ITPC.

Appendix

Concerns about ePaws

This detailed feedback was shared by an RA who expressed concern about the risk of losing important documents in ePaws:

"It's still in the midst of becoming ePAWS 2.0 sometime in 2019 with more capabilities, so I'm assuming this questioning is in regards to the first version of ePAWS? It is certainly more simple and user-friendly than Coeus was, but that is also worrisome in some ways. There is less to fill and complete, but then it also becomes a less useful record to find things out about the proposal after the fact or for others who did not originally work on it. NU-RES/ORAF grant officers (GOs) complete more of the record than dept grant administrators so things can be wrong as they are more removed from the PIs and likely don't know the answers to some lines of questioning (Activity Type; Proposal Type; Percent Effort, Total Cost) so dept admins have to be sure to check the records extra carefully after routing through to NU-RES to be sure all is accurate. There is no swapping out of materials after uploading & routing (this was done in Coeus constantly, drafts in place for routing, finals swapped out after) – instead you can only add new ones – this causes extraneous docs being attached to each record in some cases and creates confusions on which versions/uploads to look at. Time stamps don't always work accurately when swapping out before routing (which is possible among the four main uploads docs: budget, justification, abstract, and full application fields anyway). The Other attachments section needs to allow swapping out, it doesn't at any point, only delete and add. One problem that scares me is that anyone can delete a document, anytime if it's an "other attachment". And once in a while in the beginning glitches would happen where the doc in there is not the one you uploaded-and while this has not happened to me at all recently, this is worrisome again for what can be lost unknowingly if it begins to occur again. The appropriate time for routing is more

confusing, with Coeus you knew once all drafts were in place it was ok, here you can send forth with only a budget, justification, and summary, yet if there is nothing else intact, when and what will GOs look at for review? What is the point of sending only those things forward? The routing approval ladders I find problematic also because if you choose to wait until a GO has approved it on a proposal you are not lead college on, but have an investigator for, they might not route until well after submittal, and yet there were things that should have been fixed for your investigator/college. So non-lead college approvals seem almost pointless here whereas in Coues it all hinged on everyone having looked at and okayed all aspects of a proposal. Now that might be a good thing for some unresponsive approvers, but not if things need to really be seen and approved. The style of the notification emails also make PIs ignore them as they look like junk mail to them. I have a feeling they are trying to make systems more streamlined and better for PIs lack of time to learn new processes, but they aren't actually the ones using them – the research admins are…and more is always better in this field for aiding us in performing our responsibilities to full capacity."