

## MEMORANDUM

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DATE August 13, 2018  
TO University Senate IT Council  
FROM John Bertot, Associate Provost for Faculty Affairs  
SUBJECT Update on Faculty Reporting System Implementation



### Faculty Activities Reporting Background

Prior to 2014, the University used a locally-developed Faculty Activity Reporting system (FAR) to meet certain aspects of our institutional reporting requirements and to facilitate faculty review processes (e.g., annual, merit). The Office of Faculty Affairs (OFA) sought a replacement reporting system on behalf of the University due to the limited functionality of the FAR, the inability to reuse FAR data for other purposes, and the estimated costs associated with modifying and maintaining the FAR to enhance its features and functionality. This initially led to the unsuccessful attempt to implement Lyterati as the replacement for FAR. Since the failure to implement Lyterati in March 2016, OFA and the University have sought to find and implement a replacement faculty reporting system by:

- Building partnerships for the implementation of such a system on campus;
- Forming and working with key constituencies and groups on campus;
- Rethinking how we spec, develop, implement, and roll out such a system;
- Working with faculty, administrators, and key University constituencies to better understand their needs regarding faculty activities reporting, data, and data reuse;
- Broadening our understanding of faculty activity reporting tools in general, including experiences and uses at peer institutions;
- Selecting and procuring a new system (Activity Insight by Digital Measures);
- Learning Activity Insight itself;
- Understanding the issues, limitations, and challenges related to integrating our various University data systems with a product like Activity Insight;
- Mining Lyterati data — and understanding the issues associated with doing so;
- Hosting open forums; and
- Preparing for a phased system implementation and roll-out to the University.

Information, reports, presentations, and other materials related to the above and other efforts are available at <https://faculty.umd.edu/data/>.

### Rationale and Vision

As identified through a number of efforts involving faculty, administrators, academic leaders, and campus constituencies, the University has many needs for a faculty activities and reporting system, such as:

- **Promotion and recognition.** Sharing faculty accomplishments across the University, to the State, our peers, and beyond;
- **Demonstration.** Showing how faculty engage our communities and constituencies – and have an impact.
- **Connection.** Connecting faculty to each other and other campus units such as Division of Research and University Relations to foster innovation, entrepreneurship, interdisciplinary efforts and create communities of practice, service, and scholarship.
- **Administration.** Facilitating various reviews and reporting requirements such as those required by USM as well as state and federal agencies; APT, AEP, and award nominations; accreditation; and unit and college reviews (annual, merit, post-tenure, etc.).
- **Other uses.** Providing data for grant applications, facilitating awards nominations, and to update faculty / departmental web pages.

With the identification of these needs, we are working towards the vision of ***gather data once, reuse many times*** in order to both reduce the burden on faculty for meeting reporting requirements and facilitate faculty and University reuse of reported activity data for research, instruction, and service purposes (e.g., faculty web pages, teaching portfolios, grant submissions, CVs).

Achieving this vision will require a phased implementation over a period of several years; integrating with key campus data systems (personnel, sponsored research, and instruction); configuring the system for campus purposes; training faculty and administrators on the system; and establishing pathways for reusing the collected data to facilitate other identified campus needs.

Below is a more detailed update of selected implementation activities to date regarding Activity Insight, the new University Faculty Activity and Reporting system.

### **Evaluation, Procurement, and Selection**

Between March 2016 and July 2017, OFA and DIT created a collaboration to assess and learn from the failed implementation of Lyterati (see <https://faculty.umd.edu/data/documents/Report0816.pdf>), created a process for seeking a new faculty reporting system, formed an advisory and review committee, developed University specifications for a reporting system, issued an RFP, assessed responses to the RFP, selected a new reporting system based also on faculty/staff input, and finalized a contract. That process yielded the selection of Activity Insight by Digital Measures as the new faculty reporting system.

### **Kickoff and Core Staffing**

In August 2017, procurement of Activity Insight from Digital Measures was completed and a kickoff meeting was held. A team of five graduate assistants was hired to configure the

system and work on importing the Lyterati data. Initially, DIT and OFA provided a combined project manager (who led the procurement process, thus providing continuity) and product administrator to coordinate the implementation. Additionally, a project team was assembled with a governance structure, to ensure broad stakeholder involvement. In March 2018, OFA transitioned to a full-time project and product manager within its office to oversee the implementation effort.

### **Project Governance, Management, and Implementation Groups**

Success with the Activity Insight Faculty Activities Reporting project relies on coordination across stakeholder populations in defining the approach to the platform implementation, dissemination of project status in the community as well as effective and timely training and support with the launch. The project has implemented a governance structure that ensures involvement across the campus community. To guide the implementation process, OFA convened several groups that include a(n):

- **Core Implementation Team**, comprised of individuals from OFA; DIT; Institutional Research, Planning, and Assessment (IRPA); the Libraries; Digital Measures; and others as needed (e.g., University Human Resources, Division of Research, Registrar) to ensure campus systems integrations.
- **Advisory Group**, comprised of faculty and campus administrator representatives from all Colleges. The Advisory Group serves to provide critical guidance, input, and feedback into the design and implementation of Activity Insight.
- **IT Advisory Committee**, comprised of college IT staff. The IT Committee serves as a key link to colleges as we seek to rollout Activity Insight within Colleges.

When necessary, the project team creates ad-hoc groups of unit heads to address particular development needs. For example, the project team assembled an ad-hoc group from creative and performance-based disciplines to define the Activity Insight configuration of scholarly work in the arts, architecture, and journalism disciplines. Other ad-hoc groups (such as professional track faculty, librarians) will be convened as needed to address project needs as they arise and as appropriate to the implementation.

The main implementation team is comprised of five graduate assistants and the project/product manager. All are knowledgeable administrators of the Activity Insight platform, and have been involved in cleaning and reformatting the exported data from Lyterati for use in Activity Insight, where possible. The team is developing the training and support materials for the intended Spring 2019 rollout. In addition, the support team now resides on the first floor of the Toll Physics Building, which will enable faculty to drop by for one-on-one support sessions, if needed or desired.

### **Outreach and Communication**

With the kickoff in Fall 2017, the project team launched a [webpage](#) within the Faculty Affairs website to share information on the project – from the why, to the how and the

when. In addition, OFA held three public forums to date (September, 2017; November, 2017 and March, 2018) to directly engage faculty and solicit feedback. These were announced in e-mailed invitations to faculty and academic leaders, the Faculty Affairs newsletter, and copies of the presentation materials are posted on the project website.

To help faculty prepare for Activity Insight, two workshops were held in conjunction with the Libraries on use of Google Scholar and ResearcherID. The workshops offered hands-on experience with both platforms to help faculty get started in curating their publications in advance of their use of Activity Insight, as Activity Insight supports the import of publication citations from other systems.

### **Campus System Integrations**

Activity Insight has the ability to integrate with other systems to facilitate the gathering of faculty activities data (e.g., publications, sponsored research, instruction). Already built into Activity Insight are integrations with PubMed and Web of Science. The initial core campus system integrations are with PHR (personnel system), SIS (schedule of courses system), CourseEval (course evaluation system), and Kual Research (sponsored research/funding system). Along with faculty-reported data, these systems serve to create a faculty member's record of research/scholarship/creative works, teaching, and service as rendered in the Activity Insight. These integrations will enable the creation and updating of faculty accounts (e.g., for logins, appointments) and facilitate the gathering of faculty activity. In addition, the platform is integrated into the CAS single-sign on system on campus; Activity Insight users simply use their UMD login to easily access the system, eliminating the need for additional login IDs and passwords.

<b>System</b>	<b>Anticipated Update Schedule</b>
PHR	Bi-weekly
Kuali Research	Annually (end of each calendar year)
SIS	Five weeks after the end of each term (fall, winter, spring, summer)
CourseEval	Five weeks after the end of each term (fall, winter, spring, summer)

*Table 1. Anticipated system integration update schedule.*

#### *PHR*

The PHR integration ensures that the correct set of users are defined and configured in the system. It also auto-populates personal and contact information, tenure and rank information, as well as appointments. The integration runs on a bi-weekly basis, on the first Monday of each pay period (see Table 1).

#### *Kuali Research*

Sponsored research activity managed by ORA is being integrated with Activity Insight to share proposal and award activities for investigators in Activity Insight. Sponsored research

activity data will be loaded once each year, at the end of the calendar year, for use in the faculty activity reporting early in the following year (see Table 1).

### *SIS*

Scheduled teaching activity is being integrated with Activity Insight from the student information system. Teaching activity for faculty associated with a course will be automatically loaded into Activity Insight five weeks after the end of each term (see Table 1).

### *CourseEval*

Course evaluation data is being integrated from the Blue CourseEval system with Activity Insight. The data automatically populated in the Activity Insight platform will be a subset of what is available in CourseEval. It will be shared five weeks after the end of each term (see Table 1).

## **Lyterati Data**

Every effort is being made to reformat the records exported from Lyterati for use with Activity Insight. It is a large undertaking, with roughly 500,000 activity records to rework for importing into Activity Insight. For some activities, the processing is straight forward: some column names need to be changed and reordered before importing. For others, more effort is involved, as the data management philosophy differs between Lyterati and Activity Insight. In all of the Lyterati data cleaning work, the focus is on ensuring that the data that are imported is accurate. It should be noted, however, that not all faculty updated, verified, or otherwise managed – or were able to due to system issues as Lyterati failed – their Lyterati data. Thus, for some faculty, the Lyterati data may be problematic.

## **Summer Faculty Pilot**

In June, selected faculty members in the CMNS and ENGR colleges agreed to participate in piloting the use of Activity Insight. These volunteers were given minimal orientation to the platform before attempting to accomplish a set of tasks. This approach gave the project implementation team valuable insights into the usability of the configuration as faculty attempted to log in to the system, checked their appointments populated from PHR, added 2018 activities, imported scholarly work, reviewed data imported from Lyterati, and ran a report. The feedback from the pilot is resulting in a number of changes currently being undertaken to the configuration of Activity Insight.

## **Extended Pilot**

Based on the insights gained through interactions with faculty in the Summer pilot, and delays in the implementation of the initial campus system integrations, an extended pilot of Activity Insight is planned for the Fall term. The pilot will involve faculty and business staff from across the campus, broadening the scope of insights into the usability of the platform both from the faculty as well as from the unit perspectives. Pilot sessions will

involve data entry, data curation, and report generation. The extended pilot will involve a large number of faculty, administrators, and business staff across campus. A report of the pilot's findings and recommendations will be available in December 2018.

## **Launch Plans**

The current plan is to launch Activity Insight with a phased approach, starting with a staged roll out to tenured and tenure-track faculty in Spring 2019. Plans are not yet finalized but it is anticipated that the launch will be in three groups, the composition of has not yet been determined. Training will be targeted to each group and will likely focus on getting faculty acclimated to the system, understanding how to import their publications from the external sources such as Web of Science, CrossRef, PubMed, or through BibTeX files, add their 2018 activities and complete their 2018 faculty activity report.

## **Next Steps**

This is a phased implementation of the Activity Insight faculty data system. Following the Fall launch, the implementation will be to continue to create and refine reporting capabilities, from APT, AEP and award nominations, to accreditation needs across campus units. Concurrent with those efforts, the user population will expand in phases to professional track faculty and librarians. Additionally, built in to the implementation team's structure is a focus on continuous improvement. The team plans to monitor platform use to identify trends and adjust the configuration accordingly, to evolve the platform and better meet users' needs.

## **Challenges and Issues**

Technology implementations can manifest a number of challenges, such as the limitations and design of the product itself, internal systems and data design and limitations, organizational readiness, and the complexity of the implementation itself.

### *Activity Insight Challenges and Issues*

Although Activity Insight met all the specified selection and requirements criteria established by the University (and vetted by our selection committee), it is necessary to distinguish between selection and requirements criteria and the operational design and implementation of key features.

As an example: As data mapping activities got underway with Activity Insight, details around the data model used by Digital Measures in working with faculty activity data were uncovered that didn't easily support access to faculty previously associated with a unit (i.e., a joint appointment with a research center that ended), nor historical trend reporting (Activity Insight is designed to store current year activities, typically on an academic year cycle). The short-term solution developed to these challenges was the adoption of another University's model (Washington State), which allows for a multi-year window (we adopted

an eight-year window to facilitate accreditation and other processes) for appointments rather than a one-year limitation that Activity Insight provides as the default. The longer-term solution being sought is the development, design, and implementation of a faculty activities reporting data warehouse that would provide the ability to access historical activities data for trend and other reporting needs not supported by Activity Insight.

### *Internal Systems and Data Design Issues*

Integrating with multiple enterprise campus systems enables the representation of a more complete faculty record (e.g., appointment, sponsored research, instruction). These integrations, however, also present a number of challenges. Some campus systems, such as PHR and SIS, are long-established and have evolved their data elements and fields over time. Accessing that data and rendering it in Activity Insight can be a complex process that involves local data transpositions before importing into Activity Insight.

Additionally, systems change, either through upgrades or complete replacements. Upgrades, modifications, and replacements of any core systems (Kuali Research, SIS, and PHR) will require the retooling of data integrations. The upcoming plans to replace SIS and PHR, for example, will impact these systems' integrations with Activity Insight; both integrations will need to be reworked to continue the data flow from these systems of record to Activity Insight for continued faculty activity reporting, as the replacement systems come online.

### *Organizational Readiness*

Enterprise systems implementations require that the institutions in which the systems are being implemented are ready – infrastructure, capacity, staffing, expertise, user-focused design – to do so. To the extent possible, the design and implementation has brought together constituencies across campus (DIT, IRPA, administrators, faculty, chairs, associate deans, the Libraries, staff, College IT leaders, and others) to help in the design and implementation of Activity Insight as well as building a readiness for faculty to adopt and use the system for reporting purposes. Participating faculty and administrators, DIT, IRPA, OFA and others have devoted significant time, resources, staff, and energy towards the implementation of Activity Insight and as a campus community much has been learned regarding enterprise system adoption and implementation throughout this process.

### *Faculty and University Expectations*

Given the Lyterati implementation failure, the implementation team has taken a methodical and incremental approach to the implementation of Activity Insight by working with a range of constituencies at each stage of the design and implementation; offering faculty numerous opportunities to provide feedback regarding the process; testing each aspect of integrations to ensure that they work appropriately; mining Lyterati data for possible reuse; pilot testing with faculty; and other efforts.

We would note that, as also evidenced by discussions with peer institutions who are also in the process of implementing and/or using Activity Insight (or other similar systems), that faculty reporting systems are implemented in a phased, multi-year process that involves an incremental approach to full implementation. We see our implementation following the same path, with features added over time to enhance what will initially be a basic and operational reporting system.

### *System Implementation Complexity*

The most often heard description of a faculty reporting system is that it is a “CV generator.” While it is true that a key feature of Activity Insight is the generation of a CV (multiple CVs in various formats in fact through its custom CV reporting feature), Activity Insight is actually an activities aggregator that enables the reuse of identified faculty activities for multiple purposes – exporting automatically certain activities to faculty/departmental websites; facilitating promotion and review processes; the possibility of creating an experts database to highlight campus expertise in various areas; facilitating accreditation processes; and more. We also have multiple faculty types – tenured/tenure track, professional/non-tenure track, and Librarians. In addition, we have multiple disciplines and creative activities represented across numerous academic units – each with their own set of expectations for rendering and representing their research/scholarship/creative works, instruction, and service activities. Managing an implementation to meet the needs of such a diverse community and set of needs is complex and requires an iterative and incremental approach that evolves over time.

### **Concluding Observations**

A faculty activities reporting system implementation is complex and requires an incremental and iterative design approach that is based on participation and support from multiple campus constituents. The target campus initial rollout date for the system is February 2019, with pilot and other development, design, and testing occurring prior to that initial rollout. It will take several years, however, to fully implement Activity Insight to realize the University's vision of ***gather data once, reuse many times***.