

**UNIVERSITY COMMITTEE
ON
ACADEMIC COMPUTING AND COMMUNICATIONS
ANNUAL REPORT 2020-2021**

TO THE ASSEMBLY OF THE ACADEMIC SENATE:

The University Committee on Academic Computing and Communications (UCACC) is charged in Senate Bylaw 155 to represent the Senate in all matters involving the uses and impact of computing and communications technology and advise the President concerning the acquisition, usage and support of computing and communications technology and related policy issues. UCACC met four times during the academic year. All meetings were conducted remotely via videoconference due to the Covid-19 pandemic. This report highlights the committee's activities in 2020-21.

CYBERSECURITY

Cyber-Risk Working Group

Cyber-Risk Working Group was convened by UCOP early in the fall in response to a ransomware attack at UCSF that involved digital research data. The group included Vice Chancellors for Research and IT administrators; the Academic Senate was represented on the Working Group by UCACC Chair David Robinowitz and UCACC Vice Chair Susan Cochran, as well as the Chair and Vice Chair of the Academic Council (Mary Gauvain and Robert Horwitz). Chair Robinowitz led the workstream concerned with "Working with the Academic Senate to develop and deliver guidance to researchers on appropriate security efforts" and solicited UCACC input. UCACC also received updates on the Working Group from interim CIO Mark Cianca, and reviewed a draft of the final report. The core recommendations in the report were:

- Establish location-based research data protection workgroups.
- Develop awareness campaigns for faculty.
- Provide a scalable back-up service for all UC researchers.

The final report and recommendations ("Recommendations to Protect UC's Digital Research Data") were sent to President Drake, who requested the development of an implementation strategy.

Threat Detection Audit

UCACC learned about the results of an internal audit of UC's threat detection and identification (TDI) system conducted last year by UC's Ethics, Compliance and Audit Services (ECAS). The audit concluded that the use of FireEye as UC's systemwide TDI service has enhanced the university's ability to detect attacks and to respond quickly. The audit also suggested some corrective actions and improvements, including changes to the cybersecurity advisory and governance structures at campuses and systemwide.

Cybersecurity Events

In December, FireEye, the company that UC contracts with for IT security, announced that it had been the victim of a cyberattack and that its tools were stolen. The company offered some mitigating strategies and a process for moving forward. Shortly afterward, the software company SolarWinds which is also a UC provider, informed its 18,000 customers that an update of its software had been compromised. In the spring, the Accellion cyberattack impacted UC and over

a hundred organizations worldwide. The attack exposed personally identifiable information (PII) of employees and dependents via UCPath. In response, UC offered free credit monitoring and security alerts through Experian, and strongly encouraged everyone to sign up. Many UC faculty and staff found UC's response unsatisfactory. UCSD's Committee on Academic Information Technology (CAIT) drafted a letter to the UCSD Academic Senate that was shared with UCACC and will likely be taken up next year.

In April, UC Associate Director for Systemwide Export Controls Marci Copeland joined the meeting to provide UCACC with an update on export control guidance related to supercomputing centers appearing on the federal "entity list." Vice Chancellors for Research receive alerts, but the faculty are the folks most likely to know if the centers are being used by colleagues. UCACC suggested contextualizing the situation by inviting faculty to participate in group educational activities hosted by campus data centers or similar organizations that focus on multiple aspects of export control.

UC DATA MANAGEMENT

Director John Chodacki from the CDL joined UCACC's December meeting to review CDL's partnership with the Dryad Data Repository. Dryad is a researcher-led, open source initiative that allows data to be discoverable, reusable, and citable. After one year, the CDL feels that the relationship is exceeding its goals of providing a service that is integrated into workflows, connects UC to the global research community, and supports researcher needs. UC researchers are using Dryad and the repository is connecting UC researchers to open access curated datasets worldwide. The repository is geared toward data that is ready to be published, generally along with a scholarly paper, and it is not intended as an active data space or meant for fields that already have discipline-based repositories. Most faculty find out about Dryad via word of mouth, and UCACC members were encouraged to bring information about the repository to departmental meetings, and discipline-based discussions.

REMOTE TEACHING AND LEARNING

At the beginning of the academic year, ILTI Directors Ellen Osmundson and Mary-Ellen Kreher joined UCACC to talk about online courses and the latest news regarding remote proctoring services and online course evaluations. The Covid-19 pandemic required most faculty to quickly adjust to fully online teaching. In some disciplines, it was felt that cheating was rampant. In response, the campuses contracted with proctoring services such as ProctorU, Examity, or Respondus. Most campuses established agreements with ProctorU, which is the biggest proctoring service, and issued advise to faculty around using remote proctoring services. The biggest proctoring concerns were privacy, equity, and data security, since proctoring services are able to connect to learning management systems. Berkeley – and possibly other campuses – strongly advised faculty to use alternative forms of assessment.

UC's IT Strategic Sourcing Associate Director Tom Trappler joined the December meeting to provide an update on data security appendix (Appendix DS) that is used when UC licenses software and services and provides protection. Appendix DS was revised last year in a process that included representatives from UC's IT security, legal, and procurement offices.

In April, UCACC welcomed UC Irvine Vice Provost of Teaching and Learning Michael Dennin, who discussed online teaching and the need for faculty to be more involved in decision-making and policy. He also noted that summer term has been partially online for years now, and that it

demonstrates the possibility of giving faculty and students flexibility while maintaining quality, as well as equity for students who may not be able to physically be on a campus.

RESEARCH INFORMATION MANAGEMENT SYSTEMS (RIMS)

In January, 2020, UC Provost Michael Brown convened a Working Group to oversee a systemwide collection of information about Research Information Management Systems (RIMS) and their use at UC. The Working Group is co-chaired by UC Irvine Vice Chancellor for Research Pramod Khargonekar and UCSD Professor (and former UCACC Chair) Maryann Martone, and has representation from UCACC, UCOLASC, and UCORP. Research information systems are generally used to aggregate data and generate metrics and statistics for universities and other institutions. They offer sophisticated evaluation tools, but also present a concern as many are licensed by third parties, including big publishers who already collect faculty data. After conducting an inventory of the systems, the Working Group will develop a survey about use of the systems and will produce a report and recommendations.

POLICIES

- ***Electronic Information Security Policy (IS-3)***

The Electronic Information Security Policy (IS-3) was revised last year. UCACC continued to receive updates on implementation and minor clarification updates.

- ***IT Recovery Policy (IS-12)***

The Continuity Planning and Disaster Recover Policy (IS-12) was distributed for formal systemwide review and received nearly 100 comments. UCACC was kept informed throughout the policy development, and submitted supportive comments for the final review. The IT policy staff are preparing a FAQ and visual aid to accompany the policy when it is officially issued.

- ***Proposed Presidential Policy on UC Research Data and Tangible Research Materials***

UCOP Research Policy Manager Agnes Balla joined the February UCACC meeting to discuss the proposed Policy on UC Research Data and Tangible Research Materials. The policy calls upon campus leadership and researchers to work in partnership to manage, retain, preserve, protect, access and share data. UCACC has discussed data preservation over the years and the need for a UC data ownership policy. UC ownership of faculty data is currently enshrined in “Reg. 4” of the Academic Personnel Manual, although some faculty may not be aware of the specifics. The proposed policy does not intend to change current practices, other than to align with current discipline-based or funder-mandated practices.

ADDITIONAL BUSINESS

Impacts of Covid-19: UCACC discussed impacts of the Covid-19 pandemic throughout the year, focusing on implications for IT infrastructure due to online-only instruction, the extra work for instructors, and security, privacy, and academic integrity concerns around testing and evaluation. Other issues were the recording of courses and lectures for asynchronous learning and assistance for instructors with technology for large classes.

Information Technology Leadership Council (ITLC) updates: Interim CIO Mark Cianca provided regular updates on the concerns of the IT Leadership Council. In addition, Chair David Robinowitz participated in ITLC meetings as an ex-officio member.

Systemwide and campus updates: UCACC devoted part of each regular meeting to discussing systemwide issues as reported by Academic Senate leadership and reports from campus representatives on individual campus activities and concerns.

SYSTEMWIDE REVIEWS AND CORRESPONDENCE

- President’s Proposed Curtailment Program for 2020-21 (October 26, 2020)
- Academic Planning Council Faculty Salary Scales Task Force Report and Recommendations (February 17, 2021)
- IS-12: IT Recovery Policy (February 17, 2021)

REPRESENTATION

UCACC Chair David Robinowitz, served as a faculty representative to the Information Technology Leadership Council (ITLC) and as an *ex officio* member of the University Committee on Library and Scholarly Communications. UCLA member Susan Cochran served in a dual role as vice chair, and also represented UCACC on the Provost’s Research Information Management Systems (RIMS) Working Group. Chair Robinowitz and Vice Chair Cochran served as Senate representatives to the Cyber-Risk Governance Committee (CRGC) and ad-hoc Cyber-Risk Working Group.

ACKNOWLEDGEMENTS

UCACC is grateful for the contributions made by the consultants and guests who attended meetings in 2020-21, including:

- Agnes Balla, Research Policy Manager, UCOP Office of Research & Innovation
- Alexander Bustamante, Senior Vice President and Chief Compliance and Audit Officer
- Mark Cianca, Interim UC CIO
- John Chodacki, Director, UC Curation Center (CDL)
- Marci Copeland, Associate Director Systemwide Export Controls, UCOP
- Michael Dennin, Vice Provost, UC Irvine
- Shanda Hunt, Research Compliance Manager
- Mary-Ellen Kreher, ILTI Director of Course Design and Technical Development
- Greg Loge, Systemwide Cybersecurity Audit Director
- Ellen Osmundson, Program Director, Innovative Learning Technology Initiative (ILTI)
- Monte Ratzlaff, Cyber-Risk Program Manager, UCOP
- David Rusting, Chief Information Security Officer, UCOP
- Robert Smith, IT Policy Director, UCOP
- Thomas Trappler Associate Director, IT Strategic Sourcing, UC Procurement Services

RESPECTFULLY SUBMITTED,

David Robinowitz, Chair
 Susan Cochran, Vice Chair (*and* UCLA)
 Avideh Zakhor (UC Berkeley)
 Matt Bishop (UC Davis)
 Nader Bagherzadeh (UC Irvine)
 Emily Jane McTavish (UC Merced)
 Manu Sridharan (UC Riverside)
 Ian Galton (UC San Diego, Fall)

Avi Yagil (UC San Diego, Winter, Spring)
Jenson Wong (UC San Francisco)
James Frew (UC Santa Barbara)
Brent Haddad (UC Santa Cruz, Fall & Winter)
Leila Takayama (UC Santa Cruz, Spring)
Mary Gauvain, Chair, Academic Senate (*Ex Officio*)
Robert Horwitz, Vice Chair, Academic Senate (*Ex Officio*)
Andrea Kasko, CCGA Vice Chair (*Ex Officio*)
Dan Potter, UCEP Chair (*Ex Officio*)
Mimi (Derjung) Tam, UCOLASC Vice Chair (*Ex Officio*)
Joanne Miller, Committee Analyst