UCLA Academic Senate

Committee on Data, Information Technology, and Privacy

January 28, 2021

To: Lucy Avetisyan
        Associate Vice Chancellor, Information Technology Services
        Chief Information Officer

Re: UCLA IT Assessment Future State Recommendations

The Senate Committee on Data, Information Technology, and Privacy (CDITP) welcomes the opportunity, graciously extended by your office, to provide some of our early thoughts on the proposed revamp of Central IT on campus. While we anticipate discussing these issues further, we are aware that you are seeking input into the current proposal. Committee members carefully read available documents on your website and those shared in earlier meetings. We also discussed the materials via email and in our January meeting. Below is a summary of the comments, concerns, and recommendations arising from this process.

Overall, CDITP agrees that there is a pressing need to modernize the organization of IT services on campus so as to position us for improved efficiencies, security and responsiveness to emerging needs in research, teaching, and administrative activities. Persistent security threats are also an ever-evolving concern and clearly necessitate a campus-wide approach to their mitigation. Some of this reorganization may be fairly straightforward, but other parts are more challenging than the shared portion of the Deloitte report appears to recognize.

As background to our comments, we note that several members of CDITP have engagement in both the central IT architecture of the campus under the purview of yourself as well as the DGIT architecture under the purview of AVC Pfeffer. Hence members of the committee have experience with transitioning from a previous and similarly federated IT model in the health sciences units to the current highly centralized DGIT model and its optimization of IT structures devoted to centralized decision-making, managing security concerns, and enhancing functioning of patient care and administrative components of the health sciences. Given committee members experience with the DGIT transition, we fervently hope that lessons learned there will be used to inform the transformation plan for central campus.

UCLA's current IT infrastructure reflects some of ways in which workforce-driven innovations shape IT services. A need emerges that cannot be addressed by existing structures, money is found, and a new structure is created, sometimes overlapping a less nimble unit that cannot meet the current need. ITS relies on charge backs to support its own budget necessarily keeping it focused on customer service, and as such ITS has a structure that supports listening to the consumer. All of these pressures have resulted in a federated IT landscape, as noted by the Deloitte report, which both facilitates true innovation in the use of technology by the UCLA workforce but can also create inefficiencies if some units are contributing less than optimally to the institutional mission. Portions of this UCLA model are consistent with business models used elsewhere by high performing companies where the need for innovation (their core business purpose) drives changes in the central IT structure. Google, as an example of a business version of a university environment, positions its business requirements for innovation prominently

when deciding on IT strategies and plans IT structures to support the core business need. While Google is no less challenged by security and coordination needs than UCLA, it recognizes that the need for innovation must take priority in designing its IT infrastructure. To that end, they have intentionally built structures to facilitate cross-fertilization across units rather than remaining with formal reporting lines or structures that centralize organizational dictates. Security is maintained by detective and corrective controls rather than a reliance on a principle of centrally mandated restriction, unless absolutely required. UCLA's current approach has similarly built both formal reporting line structures and a highly interwoven network of informal connections where many faculty rely on division- and department-level personal relationships with IT staff and support functions. These relationships are critical to the daily just-in-time activities of teaching and research in which many faculty and staff are engaged. In addition, faculty vary greatly in how much "handholding" is needed to accomplish their tasks.

The CDIPT encourages a similar prioritization of the university's goals of innovative and high quality research, creative activity, and teaching as the fundamental priority of any IT reorganization. Without prioritizing our core mission on campus as a central need to drive resulting IT structures, CDIPT is concerned that problems similar to what has been observed in the DGIT transformation will happen. We note that the consolidation of IT by DGSOM was done several years ago also in response to serious security concerns and a desire to modernize systems, primarily healthcare delivery and administrative systems. These core goals are key to the health sciences mission, of course, but are not entirely overlapping with needs of the research and teaching mission. The DGIT centralization created new administrative positions, centralized decision-making, and moved local IT services, which had been distributed at departmental and unit levels, into a centralized group structure. The promise, like the currently proposed Deloitte model being considered for the rest of campus, was increased cybersecurity and efficiency. However, many faculty have experienced a decline in service levels for their non-clinical activities and a frustrating tin ear from the new IT structure to ideas that have not originated within a more limited group of decision makers. Structures to ensure that this core group is both aware of or sensitive to innovation needs or IT problems arising on the frontlines of knowledge creation appear mostly nonexistent. Many complaints receive either slow or no response. This has already had a negative impact on some health sciences faculty. Let us share two examples. DGIT implemented, without consultation, email access termination to employees when they go on leave. While this reduced the Health Sciences vulnerability to HR concerns pertaining to staff, it caused great inconvenience for faculty going on sabbatical leave as their email was shutoff both unnecessarily and without warning. This has been resolved but should never have happened. Second, data use restrictions and DGIT inefficiency in responding to time consuming, expensive unit responses to these restrictions has led at least one unit to cease pursuing research and lucrative external funding opportunities as to do so would cause a high degree of DGIT intrusion into their operations with no apparent security gain. In other words, centralization as a strategy has woefully underestimated the complexities of current IT at the local level and the required needs of individuals (faculty, staff, students). Unless the IT needs of the research and creative activity enterprise are prioritized, they are not always as well understood as other institutional needs that the administration is more cognizant of.

The proposed plan, as we best understand it, sets as a priority a desire to generate a coherent hub and spoke structure. The emphasis is on simplifying and straightening out reporting lines, consolidating like units, and increasing decision-making speed through clear pathways that drive information needed to make decisions to the core and allowing the core to distribute decisions in a timely manner. Hub and spoke models have several well-known potential advantages (more efficient use of resources, enhanced uniformity in decisions and operations, easy distribution of management decisions, greater ability to monitor the system as a whole) as well as several potential disadvantages that seem key to a

research/creative activities university environment (clogged decision making which must flow from the central hub, problems capitalizing on more localized opportunities, a lack of intentionally structured connections among the spokes that allow for rapid and innovative solutions, and a tendency for inhibiting free information flow as the workforce's natural inclination is to willingly transmit positive comments up to the hub but suppress negative ones). One of the points of failure in transitioning to such a model is the lack of an upfront, clear definition of what resides in the hub vs. what is in the spokes. A second is that while the emphasis in enhanced flow and control may effectively contribute to security and efficiency, it might also work to slow down innovation which tends to have a more idiosyncratic and less structured path of development. For example, innovation in the use of technology in teaching at UCLA currently occurs in several locations: individual instructors across multiple Divisions and units; university-recognized loci of innovation such as CEILS in Life Sciences, CAT; and the undergraduate and graduate divisions. To the best of our understanding CAT's input was solicited in the construction of the proposal but not CEILS or its equivalents in the humanities, social sciences, or arts and architecture. And certainly, individual instructors have not been polled, though CDIPT and administrative committees with faculty representatives have been a point of input. The committee well recognizes the enormity of attempting to consult with every possible current contributor to the institutional mission and we are not suggesting that it be done. However, the point is that the optimal IT structure will be unlikely to be achieved if the innovation needs on campus, which are highly distributed, are not placed at the center of the discussion. Hence, one shortcoming of the current proposal is the lack of direct alignment with the mission of the university as a generator of research/creative activities innovation. While the report does refer to enhancing, "the end user experience" and, "deploying leading edge technologies and practices," these ideas and how a centralized structure will create these opportunities are greatly underdeveloped.

CDIPT has other concerns worthy for your consideration. For example, the proposed reorganization of IT governance appears to place loci of innovation (departments, distal units) into "advisory and alignment" roles via a proliferation of committees and working groups where the organic nature of IT as used within UCLA is arbitrarily siloed, sometimes into strange bedfellows by measures of commonality that do not truly capture an index of commonality in IT needs. Also, the rejiggering of reporting lines appears to more neatly address those components of the campus that have a relatively easier time of being grouped into independent units: administrative backbone needs (the basic infrastructure, processing of student and personnel data, financial data) and the more academic side of managing our student's common needs. Where the report seems less cogent is the rest of the university's operations—which is precisely where innovation in IT structures and resources is needed to maintain UCLA as an engine of discovery. One example is the severing of the humanities and arts from the sciences although in recent years the emergence of digital IT needs (similar to other major data sciences initiatives) is making strong inroads in the former fields. And finally, the model does not include a structure to capitalize on innovations that arise within the highly interdisciplinary nature of the UCLA campus. We have learned over time the value of crossing boundaries to fuel innovation—but the proposed hub and spoke model will take us in the opposite direction—it is structured to cut off pathways of communication and innovation outside of flowing to the hub where decisions will be made.

We propose several recommendations for your consideration:

- We encourage prioritizing the university's mission of innovative and high quality research, creative activity, and instruction at the local level to be at least equal to the current prioritized needs in the plan that focus principally on creating a structure manageable by a central team. UCLA, as evidenced by our rise in standing among R1 universities over the years, has greatly

benefitted from its distributed model of decision-making, which encourages high levels of engagement and has allowed us consistently to punch above our weight. In practical terms, it would be wise to recognize the strategic goals of the divisions. Every Division and professional school has been engaged in strategic planning initiatives. These initiatives both address teaching and research missions holistically and embrace increasingly high levels of interdisciplinarity across units on campus. On south campus, much of this work is conducted both within the central campus IT architecture and the DGIT architecture. For some purposes, a more centralized IT system might be an advantage, but the current plan focuses primarily on how the proposed structure will contribute to more effective centralized decision-making. It seems critical to articulate the ways in which centralization will fuel innovation as well.

- We suggest that there are multiple opportunities to learn from the benefits and weaknesses in IT operations that have been created by the DGIT transformation, especially if consultation openly queries about the experiences across multiple levels of the operation and its users.

- The current model siloes customer service considerations into a centralized location. Another approach would be to ensure that customer service responsibilities are broadly distributed across the units with some guarantee for some level of customer service at the unit/departmental level. Faculty, for various reasons, are often uncomfortable with seeking help from centralized mechanisms who may be unfamiliar with their discipline specific needs and often prefer more local solutions from staff who are familiar with normative technologies in the unit. This is also more efficient for their work.

- We encourage intentional efforts to mitigate the weaknesses of the proposed model by incorporating within a consolidated IT structure, hard-wired structures to prioritize the "end-user/innovator" perspective/experience. One simple, but effective way, is to embed a service transaction analysis (STA) in every end-user interaction with the IT system (i.e., the end-user creates a digital ticket and at the end of the interaction, receives a service transaction survey. The STA (via a dashboard https://www.tableau.com/solutions/survey-analysis) would allow components of the hub and spoke to systematically analyze the quality of their service processes at a detailed, or transaction level, from a faculty/staff perspective. The approach could focus on four critical elements; the service requested, the service process, transaction quality assessment, and messages - the customer's interpretation of the service. The key benefits of this approach are that it will instill a "customer orientation" in managers and staff and encourages managers to engineer their service processes by identifying the root causes of transactions that do not accord with the intent of the IT restructuring. Currently, the only measure of user satisfaction is indirect (reliance on chargebacks for services) and much of the challenges faced by users lie outside the awareness of IT managers on campus. For example, one member of the committee had the experience of attempting to set up a simple Amazon Web Service (AWS) Instance to host a patient-friendly portal for a clinical service. The process took over three months with 35 emails to various parties–OIT, DGIT, purchasing, finance, AWS, etc. Another member experiences frequent outages of ethernet connections on campus and though the member has complained for years to the IT service providers, the problem persists. These issues are not currently tracked in a central fashion.

- The model of hub and spoke does not have an articulated structure to actively encourage connections across the spokes that will support and reward innovation. The proposed plan assumes that ideas, in a cumbersome manner, migrate up through narrowing information flow systems to the hub. However, much of innovation is likely to be moving on a faster clock with immediate needs for IT assistance and solutions. Making use of the IT infrastructure to encourage this innovative activity will benefit the campus. The current plan does include a siloed sandbox for IT staff but placing innovation in a fixed location within the structure is

unlikely to be nimble enough to respond to the idiosyncratic nature of innovation especially when generated by the faculty who work within a high number of diverse units with an equally diverse set of IT tools and systems. The UCLA workforce, like knowledge workforces everywhere, is more likely to be engaged and productive within a management system that prioritizes and rewards initiative and discovery on the knowledge frontier.

- Define, with each of the current IT groups, what can be centralized and what cannot. Build in autonomy and policies for things that need more rapid decision-making than is possible with the proposed infrastructure.
- Find ways to reduce the increasingly divisive iron wall between central campus and DGIT infrastructure. While this division may have little impact of staff or faculty who live completely in one world or the other, faculty across the campus are increasingly working across the IT divide and it is leading to inefficiencies. It may be possible, for example, to house some IT aspects of the health sciences within the central campus architecture to remedy the HIPAA concerns that are prominent with DGIT, although many of the researchers are using non-human or anonymized data.

If you have any questions, please feel free to contact me at cochran@ucla.edu and the Interim Committee on Data, Information Technology, and Privacy Analysts Taylor Lane Datmude (tlanedaymude@senate.ucla.edu) and Estrella Arciba (earciba@senate.ucla.edu).

Sincerely,

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