



UCLA IT Principles
Extract

IT Planning Task Force

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1	Name	IT Investment Strategy
	Statement	<p>To ensure alignment of IT investments with institutional needs, every campus plan must include an IT plan.</p> <p>Planning and budgeting for information technology must be integrated with the institution’s overall planning and budgeting processes. Alignment with a campus-wide three-year IT strategic plan is a prerequisite for approval of funding for institutional IT projects.</p> <p>IT Projects will be justified on the basis of the value they generate for the university and not driven by purely technical considerations. New IT proposals will be approved only when there is compelling cost-benefit substantiation.</p>
	Rationale	<p>IT is a strategic tool for the campus and represents a significant investment of our resources. Our IT efforts and capabilities must be aligned with the goals of the institution to better enable the achievement of our mission and maximize the overall benefit of IT investments. Considering strategic long range needs in addition to short-term tactical needs is a requirement for the development of robust and responsive institutional IT capabilities that can be shared and leveraged by the campus community. Cooperation and collaboration across units is also needed to make this a practical reality and avoid “silo” IT solutions that sub-optimize our institutional IT capabilities.</p>
	Implications	<ul style="list-style-type: none"> • The planning process should include an exercise in setting priorities for funding and such prioritization should be driven by an evaluation of the alignment to the institution’s strategies, regulatory needs, and other perceived benefits and desired outcomes. • Today we don’t have a tool to tell us at the enterprise level what the level of IT investment needs to be. • We need to distinguish between long term investment needs (depreciation reserve) and annual project costs • Requires a commitment to the IT Governance process. • Local IT decisions should not be made to the detriment of institutional goals. • Costing practices and related allocation parameters should be easily understood, and all necessary data should be available on a timely basis and easily accessible for use in the strategic planning and budgeting process. • The IT planning process must involve faculty, staff, and students. • Some activities and investments are in the best interests of the institution and must be supported by all units irrespective of level of use or perceived benefit. • Information technology funding needs should address the Total Cost of Ownership (TCO) over the life of the IT solution including: initial capital investments, implementation support, operational funding and depreciation. TCO should be considered from the broadest perspective to avoid the “Domino Effect” where a unit fails to consider the cost of system implementation across other affected units.

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	<ul style="list-style-type: none">• Replacement cycles should be established for each of the different components of the technology infrastructure (i.e., hardware, software, implementation costs for lifecycle replacement, etc.) and funding to incorporate the cost of replacement should be incorporated into IT budgets.• A contingency or reserve fund should be accumulated to provide for unanticipated institutional IT expenses that arise and were not funded as part of the strategic planning and budgeting process.• The campus should collaborate from an institutional perspective on the purchase of infrastructure hardware and software whenever feasible, enabling cost efficient purchasing practices and support for ongoing maintenance. The budget process for these purchases and ongoing support should be coordinated across all organizational units based on an established institutional funding model.
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3	Name	Federated and Layered IT Services Model
	Statement	<p>The university will operate in a “federated IT” deployment model that is based on a structure of local, regional, and institutional IT services to meet needs. IT services will be delivered and managed through a shared accountability model of institutional and local providers. Shared services will be collaboratively deployed using a layered IT services model that enables core services to be provisioned and supported by local service providers in a timely manner.</p> <p>Baseline common IT Services should be standardized and managed centrally however they must be reliable and responsive to local needs.</p> <p>Local autonomy especially at the research and education ‘front lines’ is highly valuable and is explicitly embraced at UCLA. Our IT Service model will respect and enable this key institutional operating principle with a perspective of also enabling local units to lever institutional capabilities</p>
	Rationale	<p>Unplanned, redundant provision of common IT services by multiple service providers increases overall institutional IT support costs and also inhibits our ability to gain economies of scale.</p> <p>Today there is a false dichotomy between IT services provided centrally versus those being provided by units or divisions. The Layered IT Services Model is a hybrid model that balances a strict centralized versus decentralized approach for delivering IT services. IT services will be created as components on top of shared institutional service components, allowing regionalization and specialization at the local level.</p> <p>A Federated and Layered IT Services model will better enable us to balance IT costs and the need for IT agility. Shared, common IT services should render better economies of scale and allow local IT services to be built more rapidly and cost effectively upon a common institutional IT infrastructure.</p>
	Implications	<ul style="list-style-type: none"> • Close collaboration and accountability will be required across units to identify opportunities to realize this IT principle. Key commodity services will need to be viewed from an institutional perspective in terms of provisioning and service delivery so that all institutional constituents should receive a similar level of service based on a determination of the baseline level of service needed for the campus to meet its responsibilities and established refresh models. • We should consider the possibility of providing support and incentives (grants etc) to enable local and central units to collaborate and exchange expertise on IT innovation and IT service development • Our funding models could be a barrier to the implementation of this IT principle, especially where they require separation of funds on a instruction, research, or other basis. • We need to be proactive in considering when purely local IT solutions or purely shared solutions or a layered mixture would provide more appropriate value to a unit. • The design of the Federated and layered model must consider layering of IT services beyond local and central domains, such as campus regions, the UC system, and broader research and teaching

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	<p>communities.</p> <ul style="list-style-type: none"> • An ongoing review of duplicative efforts and alternative provisioning models for broadly prevalent technologies and services should be evaluated by established IT oversight committees and reported on annually. • The cost structure for the provisioning and support of institutional IT services, whether provided centrally or locally, should be incorporated into the institution’s IT funding strategy. • Campus will operate with a single data center structure (multiple integrated data centers) for its campus wide systems that is secure, compliant, energy efficient and Disaster Recovery (DR) ready. • Consolidations should not be undertaken at the expense of service quality or without an understanding and assessment of the risk/reward tradeoffs • The beneficiaries of institutional IT services should pay their fair share of the costs of those systems. Cost allocation methodologies should create desirable incentives and avoid undesirable incentives. • IT Services will need to meet agreed institutional production standards.
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4	Name	Shared Core Communications Connectivity
	Statement	UCLA communications infrastructure will be planned and developed to create a shared institutional connectivity capability and will be built on common IT architectural principles.
	Rationale	<p>Connectivity is an essential contribution to the UCLA Mission. The provision of connectivity is an enterprise-wide exercise. We should strive to facilitate innovation through IT connectivity. We should prevent barriers to institutional effectiveness in the form of restrictive connectivity – except where unique local security requirements pertain.</p> <p>The communications infrastructure should act as a UCLA “central nervous system” and enable individual units to take advantage of a robust shared capability when building more specialized local IT solutions. This principle also supports the principle of a Federated and Layered IT Service model.</p>
	Implications	<ul style="list-style-type: none"> • UCLA communications architecture and supporting standards will need to be developed. • The shared communications infrastructure needs to be designed to support a wide variety of common “use cases” yet allow specialization by local units. • While network security must be adequate to protect critical assets it cannot trump all other considerations. Security and the avoidance of risk must be balanced against the need for appropriate access and capability.

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6	Name	Data is an Institutional Asset
	Statement	UCLA is in the knowledge business. Data is the currency that has to be managed, available and accessible as an institutional and strategic resource that underpins our business and academic mission. As an institutional resource, data accessibility and availability should be determined based on the value to the university
	Rationale	UCLA is a knowledge and data dependent organization. Lack of appropriate data integrity, quality, and security can compromise the university’s reputation and impede operational efficiency. In addition, we must find a way to deal with the “digital data deluge ¹ ” that is a consequence of UCLA role as a leading research university and the increasing need for institutional data archival, appraisal, and stewardship. Individual efforts and investments to deal with this issue will be insufficient.
	Implications	<ul style="list-style-type: none"> • There must be a consistent campus-wide policy and behavior for access to institutional information regardless of where it is collected or stored. • Guidelines, policies and processes will need to be established for institutional data management. For example, the demand for data storage continues to outstrip storage capacity. This situation requires data appraisal processes and policies to determine what data is worth keeping. • Accessibility and availability must take place in a trusted environment with the protection of data integrity. • There will be trust issues to overcome in building shared capabilities for data management. Researchers will need assurance that they can put their data into a trusted system. • The campus must strive to achieve an appropriate balance among privacy, openness, transparency and safeguarding confidential information.

¹ Berman, Francine. *Got Data? A Guide to Data Preservation in the Information Age*. Communications of the ACM, December 2008, Vol. 51 No.12, 50-56.

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9	Name	Innovation and IT Project Risk
	Statement	All innovation entails some degree of risk. Innovation through information technology will be encouraged through an appropriate tolerance for risk.
	Rationale	Risk is part of innovation and innovation is an inherent function of a research university. The challenge is balancing the risk of innovation against the potential benefit of a positive result. For any innovative project there should be an effort to understand the degree of risk and whether the degree of risk is appropriate to the degree of benefit.
	Implications	<ul style="list-style-type: none"> • Most innovation will begin locally without input from the central campus. The campus does not want to impede this innovation. • The problem is when there is an unanticipated (not budgeted) need for institutional resources to support the innovation. • Innovative projects with significant risk should start as pilot projects to minimize risk exposure and gain a better understanding of the risks and challenges involved in a full scale implementation • There should be mechanisms to handle and encourage innovation with local, central and external resources. • Wherever possible campus resource should be leveraged with opportunities for external funding. • If innovation is supported centrally, a mechanism should be developed to allow “grant” applications for central support. The availability of this type of central support needs to widely known to the faculty. • Innovative projects must be defined as to budget and time line. This is built into external funding and should be a part of any internal funding. • For innovation that uses campus support in real dollars or campus support of applications for external funding, it should be determined in advance how the pilot will advance to full campus resource and how that full campus resource will be funded.

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11	Name	Institutional IT Oversight and Governance²
	Statement	<p>Institutional oversight of IT will be in place to guide the realization of the IT strategic vision and ensure close alignment of IT efforts in support of the campus strategic direction.</p> <p>This will be achieved through an institutional IT governance structure (institutional entities/processes and units/process) in which decision rights are allocated and understood. The institutional IT governance structure will provide a nimble and effective decision-making framework.</p> <p>Final accountability for the IT Governance structure and allocated decision rights rests with the Chancellor/Executive Vice Chancellor and Academic Senate Chair.</p> <p>The CIO and the Office of Information Technology (OIT) will be responsible for management oversight of the execution of the UCLA IT Strategy and the IT Governance framework to actively engage campus leaders to achieve the strategic IT vision.</p>
	Rationale	<p>IT governance is the framework of decision rights and accountability that drives desirable behaviors around the use of IT (IT strategic direction, policy, collaboration, architecture, standards, needs, initiatives and investments).</p> <p>Successful achievement of the strategic IT vision requires the orchestration and integration of the governance process, and many different UCLA stakeholders, needs and initiatives to create appropriate synergy and forward momentum towards the vision. At times this will also require difficult trade-offs to be made between local needs and the overall needs of the campus. The CIO will provide a single point of accountability and the leadership to accomplish this task in a neutral manner that maximizes the benefits of IT for the whole institution.</p>
	Implications	<ul style="list-style-type: none"> • The current IT Governance framework should be reviewed for its effectiveness and efficiency in meeting this IT principle in terms of structure, process and alignment with the new vision, principles and strategies • The distinction between IT Governance and operational management responsibilities for IT efforts must be clarified to avoid conflict and enable organizational agility. In some cases today the lines are blurred between the responsibility of IT governance entities and the fiduciary obligations of operational managers. All key IT stakeholders and sponsors need to understand and know how to use the UCLA IT Governance structure when required and how it will integrate with operational management. • Need to have strong oversight and buy-in from faculty. Having faculty representation and participation in the governance entities will be crucial • IT governance “calendar” may be required to manage

² ‘Institutional IT Oversight and Governance’ should not be confused with Management Oversight or Operational Management

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	expectations on the timeline for decisions by the governance bodies and to accelerate the process.
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