Change Management and Cultural Resistance

Changing an IT organization is difficult. Cultural, institutional, and individual resistances operate like inertia to thwart improvements. Most people like structure, consistency, and repetition, so finding those who truly embrace change, with its uncertain and ambiguous nature, is rare.

At NC State University, we are engaged in a six-year effort to shift the focus of the Office of Information Technology (OIT), our central IT organization, to being more dynamic and forward-thinking. We have an outstanding team of IT professionals and systems doing amazing things; but we must embrace a new strategic direction for the future success of campus information technology.

Like many other industries, higher education is enmeshed in a technology-fueled, globally competitive market to improve quality and drive down costs. At NC State, our challenge is to produce an educated citizenry, perform research, and drive economic development. Change is definitely upon us.

Change in the IT Landscape
Campus IT organizations are partners in innovation; they all work together to improve the campus business processes and to support the goals, strategies, and activities to achieve the institution’s mission: excellent teaching, the creation and application of knowledge, and engagement with public and private partners.

In the past, most innovation has occurred at the department or individual level due to need, cost, and the specific nature of the technology. Faculty have used a particular technology or pedagogy to improve learning, advisors have implemented more personalized uses of social media to support their advisees, and departments have built collaborative environments.

Generally, the central IT organization has moved these innovations to scale and reduced costs. In this age of “X as a Service” and operations at scale, higher education institutions now have huge costs and outcome pressures that require them to look at these efforts from a campus- and system-wide perspective. The funding elasticity for independent, one-off systems for basic campus functions has evaporated. For example, institutions can no longer run mail/archive systems or host websites as efficiently or effectively as can commodity providers.

To bring forth change, college and university IT leaders must evaluate business processes:

■ How do we look at the IT organization as a “business” enabler and not a cost center?

■ How do we balance the efforts of the central IT organization with those at the edge?

■ Which IT efforts do we outsource, and which do we handle in-house?

■ How much of the campus IT services should be on premise versus in the cloud?

■ Finally, what kind of employees does the IT organization need, and how many?

Many IT folks are builders, developers, or system supporters—technical experts on the custom hardware and software platforms that have been used to operate the campus IT “business.” Our custom development work has spawned new software models and businesses (e.g., web services, cloud, learning management systems, identity management). Presently, however, we are doing less developmental innovation because we are spending an enormous amount of time maintaining current systems. We are making mostly incremental improvements—with the exception of major innovations such as InCommon, Kuali, and Unizin. Because our innovation is now derived from integrating and using existing platforms, we’re becoming tool users and not tool developers.

“Be IT”
Clearly, we need to develop and even cross-train our current staff to move them up the value chain so that they become the business analysts, IT subject matter experts, and strategic innovators who can support campus goals.

They should “Be IT.” That is, they should be the technical professionals who help faculty and staff innovate and blend information technology into education and other existing technologies to drive new research. I want the NC State faculty to request my IT staff to participate in research planning because of the creativity and knowledge of the staff, and I want the agricultural extension employees in North Carolina counties to seek our IT innovations for their activities.

When this happens—when the NC State faculty demand IT staff skills—we will require additional funding to increase staffing. One of my goals is to have 30 percent of IT salaries supported by grants.

Using Information Technology as a Driver for Change
At NC State, we developed a three-phase strategic-planning process to improve the use of information technology as a driver for change:
The Strategic Operations Plan (http://oit.ncsu.edu/sp/sop), which establishes internal values and goals on how the central IT organization operates and interacts with its customers and with other IT professionals. As part of this process, new organizational vision and mission statements were developed.

The Campuswide Governance Model (http://oit.ncsu.edu/it-governance-at-nc-state), which gives a voice to all IT professionals as well as to students, faculty, and staff. This new structure allows the campus IT organization to focus on five strategic areas: strategic alignment, value delivery, resource management, risk management, and performance measurement.

The Campuswide IT Strategic Plan (http://oit.ncsu.edu/itstratplan), which sets the directions for all IT personnel to innovate, manage, and collaborate to help the campus meet the goals of the university’s Strategic Operations Plan.

The spirit of collaboration among all campus IT groups was the key to the development of this strategic-planning process, which involved numerous teams and focus and working groups consisting of IT staff and non-IT stakeholders—as well as much data gathering and sharing. Yes, it was a slow process, but as we now say: “The process is the product.” The next phase of the Strategic Operations Plan is to develop initiatives and metrics to measure the success of the strategies and goals.

Embracing Change
Change certainly troubles some IT professionals. Many were not hired with these softer and/or “business” skills in mind. A number of them are deeply technically focused, and they like the build-and-development nature of past structures. We will of course continue to need these deep experts—just not as many as in the past, and they will be focused on unique and high-value efforts.

At NC State, we have been on this path for six years; whereas the pace of change has been slower than desired, real cultural change has occurred. Many employees have already embraced this view and are acquiring new skills, partnering with others, and learning the “business.” Indeed, one of my strongest technical leads, someone who is usually a huge advocate of custom solutions, recently suggested that we use a vendor solution for an application that he would have previously built. Another staff member recently proposed a campus liaison program to improve customer support. Additionally, central IT and college IT directors are working collaboratively, via the new IT governance model, to meet overall campus needs, including share management tools, common software licensing, shared support personnel, and funding for common solutions. Many others projects are emerging.

Currently, we are beginning another improvement cycle and are revisiting how our central IT organization operates to invigorate the process. As with all improvement processes, the cycle repeats. We must constantly reevaluate the needs of the campus and adapt. Change is truly exciting.

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