

Transformative IT: Critical to our Academic Future

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Innovation happens at the edge, where disciplines intersect. The beautiful typography on a Mac computer would not have been possible if Steve Jobs did not take a calligraphy class at Reed College when he was young. The explosion of “smart speakers” such as Amazon’s Alexa only developed when behavioral psychologists, linguistic specialists and technologists sat together and discussed natural methods humans communicate. Closer to home, the Unified Student Experience Project, a campus-wide effort to unify the online and in-person CU Boulder student experience, would not be possible without faculty, staff and students joining together with those in information technology (IT) all having a voice at the same table. With the challenges and adjustments CU Boulder must make as the world around us changes, it must be recognized that technology is the fabric binding many of our common goals and it is imperative to ensure people are brought to the table from various backgrounds including information technology to tackle these issues in meaningful authentic ways. We call this, bringing IT to the table -- the third level of IT, “Transformative IT”.

There are three levels of IT and most are familiar with the first and second levels from their daily roles. The third, transformative IT, is new and without argument the most valuable level of IT as it will help drive CU Boulder to its future academic vision. At its lowest level, level one or “Infrastructure IT”, information technology is just a set of tools linked together by a network. These tools either enable us to fix something that is broken, such as a failed laptop, get something specific, such as a document to the printer, or obtain something new such as a new piece of purchased software installed on a desktop. Efficiency and speed are important and valued at this level of IT in order to resolve the request or problem. If this basic level of “Infrastructure IT” is not performed well, the campus cannot achieve the next two higher levels. Many faculty, students and staff conceptualize the central IT organization’s goal is to provide these tools with great speed and effectiveness. Although true, central IT must be looked at as much more than a simple level one request and fulfillment organization if campus wants to innovate and drive a future vision.

The second level of IT, “Service IT”, is one that integrates tools into a holistic and integrated service offering supporting the mission of the campus. This level requires a more in-depth understanding of how a campus operates than level one and focuses on serving various academic and administrative units. Examples of central IT providing this second level of “Service IT” include the campus Learning Management System (LMS) which links source systems for grades and has integrations with other applications such as video libraries, e-portfolios and plagiarism checkers that faculty and students desire. The individual tools such as plagiarism checkers and e-portfolios are not discreet programs but part of a much larger single LMS ecosystem. The campus Google Suite and Microsoft O365 offerings are other examples of second level of IT where a platform is provided for collaboration, sharing and storage between

faculty, students and staff. This second level of IT necessitates an understanding of the campus needs so as to knit together the various issues involving access, security and overall design thereby creating a service to meet a campus need. The difference between this second level of IT and the third level or “Transformative IT” is at level two central IT often listens to requirements from discrete units but it often comes later in the process and is not a dialog or discussion from the start.

If a University only operates at level one and two of the IT levels, an environment of silos, complicated processes and overall lack of efficiency emerges. Transforming the campus to meet its future vision of academics requires a level three or “Transformative IT” level to be a part of the solution from the start. “Transformative IT” concurrently supports Infrastructure and Service IT while also helping guide leaders from multiple disciplines to work in concert together and ask hard questions through thoughtful analysis and open dialogue. It results in complete requirements gathering and savvy project management so as to meet the academic priorities of the campus. Level 3, “Transformative IT”, is a collaborative and engaged process where all project stakeholders along with IT work together at the same table from the start to prioritize and successfully execute a vision in a timely manner.

Breakthroughs in our academic futures is not about technology; however, “Transformative IT” ensures leaders will engage with each other in order to better understand the difficult issues and develop innovative solutions together. This bringing together of people and using “Transformative IT” to connect disparate campus entities in a collaborative fashion to solve a common goal is a challenging and innovative method of working but can ensure CU Boulder continues to successfully lead in the shaping of the future of learning and discovery.