Student Laptop Ownership Requirement and Centralization of Information Technology Services at a Large Public University

Gregory B. Newby
University of North Carolina Chapel Hill, USA

EXECUTIVE SUMMARY

A large, highly ranked public university implemented a requirement for all incoming undergraduates to own a laptop computer starting in Fall 2000. To control increased expenditures for information technology, this requirement has shifted some of the cost of technology to students by decreasing the need for centralized general-purpose computing laboratories.

At the same time, a shift towards centralized academic computing support occurred. This shift was away from information technology resources, services and support based in individual departments. This shift, engineered by the newly formed office of the Chief Information Officer (CIO), was envisioned to generate cost savings through economies of scale.

The educational impact of the laptop requirement is starting to be felt, but adoption is not widespread in daily classroom use. Envisioned cost savings have not yet become apparent. However, laptop ownership has enabled some new classroom activities and helped to reinforce the leading-edge image of the university.

BACKGROUND

The subject of this case study is a large US-based public university with a liberal arts focus. Ranked well within the top 50 universities by *US News and World Report* (2001), and within the top 10 public universities overall, the institution had a solid history of leadership in education. Like most public universities, a large component of the subject's mission was to bring low-cost and high-quality education to the undergraduates of the state. With tuition under $5000 per year for in-state students, and numerous nationally recognized academic programs, the university had a good record of accomplishment on this mission.

Universities, by definition, are composed of schools and colleges. All universities have a variety of undergraduate academic programs based in the schools and colleges, typically including liberal arts (such as humanities and social science), the sciences (physics, biology, chemistry), and professional studies (business, journalism). Graduate programs at the subject organization included the range of undergraduate programs listed here, plus medical professions and others, with more than 100 different Ph.D. and master's degrees offered.

The different schools and colleges within the subject university had different needs and uses for information technology. By 2000, all students and faculty, regardless of their academic program or home department, made significant use of information technology. Students made regular use of email and the Internet for class research, communication with their peers and faculty, and fundamental activities such as course registration and tuition billing.

Within the university, there had historically been inequity across academic units (the schools, colleges and academic departments that compose them) for information technology access and support. Units with strong internal and external funding (from grants and other sources) might have been able to provide laboratory or research facilities for students and faculty, while units without such funding needed to split their technology funds for a variety of purposes.

Laboratory and research facilities would include materials that were discipline specific (such as Bunsen burners for wet chemistry labs), but all disciplines relied on general-purpose microcomputers and servers. In addition, these computers required staff support to purchase, configure and maintain. In many disciplines, specialized software was required that could be quite expensive or time consuming (in support staff hours) to acquire, configure and maintain.

Special-purpose laboratory and research facilities supported faculty and graduate students, but undergraduates tended to require general-purpose computing facilities. The subject university, like most universities of its size, had a centralized nonacademic unit that controlled most general-purpose computing facilities. This academic computing unit ran central servers for the campus (backup servers, email servers, Web servers, etc.) and numerous computing laboratories with microcomputers, printers and a variety of software. The unit also offered training and support on a variety of topics, from basic email use to advanced statistical computing.

Because the academic computing unit focused on student needs, departments could effectively outsource their requirements for microcomputer support, software maintenance and staffing to the unit. Historically, this meant that schools and departments without significant specialized computing needs and flexibility in funding had very little discretionary budget for information technology. The result, which was most apparent in the humanities

10 more pages are available in the full version of this
document, which may be purchased using the "Add to Cart"
button on the publisher's webpage: www.igi-
global.com/teaching-case/student-laptop-ownership-
requirement-centralization/33565

Related Content

ICT Growth and Diffusion: Concepts, Impacts and Policy Issues in the Indian
Experience with Reference to the International Digital Divide
Saundarjya Borbora (2008). *Information Communication Technologies: Concepts,
Methodologies, Tools, and Applications (pp. 160-173).*
www.irma-international.org/chapter/ict-growth-diffusion/22663

The UAB Virtual Campus: An Essential Platform for a European Higher
Education Environment
José Manuel Yábar, Jesús. Hernández, Pedro López Roldánand Joaquim Castellà
(2007). *Journal of Cases on Information Technology (pp. 37-48).*
www.irma-international.org/article/uab-virtual-campus/3200

Online Catalogue of Manuscripts Conserved in Libraries in the Veneto
Region
Barbara Vanin (2009). *Encyclopedia of Information Communication Technology (pp.
631-636).*
www.irma-international.org/chapter/online-catalogue-manuscripts-conserved-libraries/13415

Software Vulnerability and Application Security Risk
Jianping Peng, Meiwen Guoand Jing Quan (2019). *Information Resources
Management Journal (pp. 48-57).*
www.irma-international.org/article/software-vulnerability-and-application-security-risk/216441

Online Communities and Community Building
Martin C. Kindsmüller, Sandro Leuchterand Leon Urbas (2009). *Encyclopedia of
Information Science and Technology, Second Edition (pp. 2893-2898).*
www.irma-international.org/chapter/online-communities-community-building/14000