

Why IT Matters to Liberal Education

Why does IT matter to liberal arts education? This question is much different from why IT matters, more generally, to higher education. To understand the question (and the answer), we must first consider the defining elements of a liberal arts education and then address the role of technology in learning.

Liberal learning is broad and deep, responding to new dimensions of knowledge and encouraging intellectual development; it promotes learning styles that tend toward creative expression. Since the very nature of liberal education lies in the continuing exercise of a critical and informed intellect, liberally educated people demonstrate ability in the pursuit of specific occupations and understand and assume the responsibilities of citizenship. These attributes, however, are the consequences, not the purposes, of a liberal education.

The liberal arts education provided at St. Lawrence University is education for life—education that inspires students to be lifelong learners, that prepares students to make a difference in a wide array of careers, and that encourages students to find meaning in what they do and to better understand the issues and questions that are at the center of the quest to be a learned, educated person. Many of the agreed-upon outcomes for liberal learning are inextricably tied to technology; in addition to knowledge rooted in the disciplines, these outcomes encompass a long list of intellectual and practical skills (written and oral communication; inquiry; critical and creative thinking; quantita-

tive literacy; information literacy) and individual and social responsibility (intercultural knowledge; a propensity for lifelong learning). Liberal learning outcomes are highly valued by the academy and by employers.

Technology plays a vital role in liberal learning, as it should more broadly in higher education early in the twenty-first century. Technology has permeated every discipline; as a result, technology-based tools enable professionals in the field to think in new ways, and they allow novices to ask meaningful questions of their own. Further, technology in liberal learning becomes more than a tool or a means to an end: technology is also a locus for creating new knowledge and, often, a medium for creative expression. Twenty-first-century technologies in particular are dynamic media, encouraging collaboration and enhancing the learning process.

Making strategic decisions around technology-related literacies is a challenge for any institution of higher learning. At St. Lawrence University, we dissect new media literacies, which incorporate visual literacy to account for the power of images in today's digitally enhanced environment; we discuss the distinctions between information competency and information literacy and information fluency; and we get sidetracked, sometimes, by the definitions. For instance,

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A Global Imperative defines twenty-first-century literacy as “the set of abilities and skills where aural, visual and digital literacy overlap,” clearly emanating from the media literacy perspective; meanwhile, the *Information Literacy Competency Standards for Higher Education* quoted the American Library Association’s Presidential Committee on Information Literacy when it defined *information literacy* as the “set of abilities requiring individuals to recognize when information

is needed and have the ability to locate, evaluate, and use effectively the needed information.”¹

At St. Lawrence, the IT leadership reports directly to the president, fostering the development of a collective understanding of and appreciation for what we’ve termed *critical literacies*: new media, writing and oral communication, critical inquiry, quantitative and other kinds of research, and information literacies, all of which are applicable across the liberal arts curriculum. Co-CIO Sondra Smith, the director of educational technologies and the primary EDUCAUSE representative, has conducted valuable research to gather the information we need to determine how faculty and students are integrating technologies and how they are engaging critical literacies. The amazingly rich and diverse manifestations of their use of technology are evident across campus:

- With *The Weave*, students operate as independent news media analysts by reporting on stories not otherwise receiving due attention from mainstream media (<http://students.stlawu.edu/theweave/>). A blog created by faculty and students in the global studies program, *The Weave* is “a small but determined contribution to the citizen journalism movement that has arisen as a response to media consolidation and the failures of mainstream media to provide the depth of information and the breadth of perspectives that are crucial to a healthy democratic culture.” Since this is a blog, anyone can join the conversation—an invitation to engage in lifelong learning if ever there was one.
- In biology classes, students utilize confocal and scanning electron microscopy for digital image acquisition and analysis, revealing breathtaking minutiae of a natural world otherwise unknown, while conducting serious cellular research.
- Digital scholarship becomes a multimedia-rich course resource, in lieu of a textbook, in *Landscapes of Capital* (<http://it.stlawu.edu/~global/pages/intro/scapehome.html>). In this web-based project about “public, commercial representations of Global High-Tech Capital . . . interested in how space/time (speed), capital and globalization are represented in corporate television advertising,” students are challenged to examine and analyze corporate television commercials as cultural maps.
- Students in a first-year seminar use GPS and GIS technologies to explore nature as a theme that humans have created and to analyze relationships established with the natural world as a result of power or knowledge. One student created a GIS model to accurately predict “Landslide Susceptibility in the Adirondack High Peaks” (http://www.stlawu.edu/gis/kevin_e.html).
- In the Newell Center for Arts Technology facility, powerful IT resources are being brought to bear on the arts curricula in ways that encourage both deep exploration of the arts disciplines and broad collaborative

ventures, helping the university to put the “arts” in “liberal arts.”

- Students taking a course in Chinese language combine digital imagery with an original poem written in Chinese. At a campus Poetry for Peace event, the poems are recited in both Chinese and English. Many students use original and stunning visual imagery, captured digitally while studying abroad.

Engaging critical literacies is an essential component for meeting the mission of a liberal arts education. Consider even a small sample of technologies applicable across the disciplines: social networking, 3D modeling, virtual worlds, web mapping, and mashups. What does it mean to remove physical boundaries or diminish traditional barriers to learning about our place in the world? Consider also digital scholarship and emerging forms of publication. What does it mean for students to co-author in a truly collaborative fashion while benefiting from feedback of academics around the world, from the insight of a professor across campus, or from the perspective of student scholars at another institution? Consider too the epistemological implications of new media and of information and communication technologies. What does it mean for students, in using these technologies, to become creators of new knowledge? The role of technology in liberal learning is decidedly as complex as the university’s mission.

And there is a catch. As has been widely reported, the millennial and post-millennial generations of young adults have never known a life without digital technology, but neither are they technologically savvy. Often they don’t understand ethical uses of technology or the concept of intellectual property rights. Their critical thinking skills are notoriously weak and their reflective capabilities sorely lacking. It would seem that the digital native is primed to benefit particularly well from liberal education, technology notwithstanding.

Surveys administered to hundreds of students at St. Lawrence indicate that regardless of their perceived level of expertise, incoming first-year students

have a strong desire to improve their technology skills: 55 percent believe that it’s very important for faculty to expect students to keep up-to-date with their technology skills, and 72 percent believe that advanced technology skills are very important to their career objectives. The challenge for educators in the liberal arts is to integrate technologies in such a fashion as to engage critical thinking, stimulate intellectual growth, and encourage reflection in students who must fully embrace twenty-first-century literacies in order to succeed as global citizens in an increasingly diversified and technologically dependent world.

Of course, technology is expensive to provide, perhaps nowhere more so than at the small liberal arts institution, where infrastructure and support costs per student are significantly higher than at other kinds of institutions—with few, if any, economies of scale. Still, those of us at liberal arts institutions cannot afford to underfund technology if we also expect to excel at our mission. In addition to all of the traditional technology costs—computer labs and classroom technologies, administrative systems and learning management systems—we must also build and invest in technology-rich programs and space. As a result, liberally educated students will learn to reason and research quantitatively, will develop written, oral communication, and rhetoric skills, will hone research and information literacy skills, and will utilize creative suites of software to digitally compose or illustrate.

IT matters to liberal arts education because a truly liberal education is one that prepares students to live responsible, productive, and creative lives in a dramatically changing world.

Note

1. New Media Consortium, *A Global Imperative: The Report of the 21st Century Literacy Summit* (Austin, Tex.: NMC, 2005), <http://www.nmc.org/pdf/Global_Imperative.pdf>, p. 2; Association of College and Research Libraries, *Information Literacy Competency Standards for Higher Education* (Chicago: American Library Association, 2000), <<http://www.ala.org/ala/acrl/acrlstandards/standards.pdf>>, p. 2.



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