

**THE UNIVERSITY OF TEXAS AT AUSTIN
INFORMATION TECHNOLOGY ADVISORY COMMITTEE**

EMERGING INFORMATION TECHNOLOGY THEMES

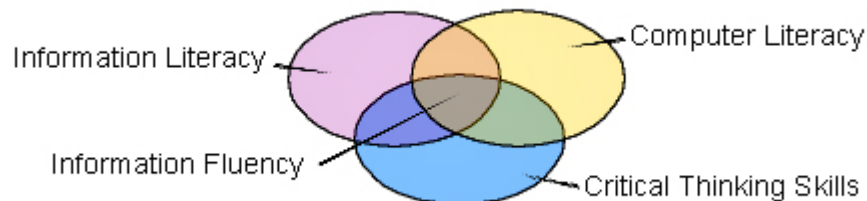
GOAL OF INFORMATION TECHNOLOGY AT UT AUSTIN

Through its role of assessing and supporting information technology on The University of Texas at Austin campus, the Information Technology Advisory Committee supports the goal of the campus becoming “information fluent.”

An important challenge facing higher education today is to anticipate how emerging technologies will change the traditional ways we have taught and learned, to find ways to guide our students in becoming adept at using the varied types and sources of information available to them in productive and responsible ways in their learning; in other words, to become information fluent. Information fluency is a concept of the Associated Colleges of the South which defines information fluency as “Using critical thinking skills and appropriate technologies, information fluency integrates the abilities to:

- Collect the information necessary to consider a problem or issue
- Employ critical thinking skills in the evaluation and analysis of the information and its sources
- Formulate logical conclusions and present those conclusions in an appropriate and effective way

Information Fluency may be envisioned as the optimal outcome when critical thinking skills are combined with information literacy and relevant computing skills.



See http://www.colleges.org/techcenter/if/if_definition.html for more information on this concept.

It is information technology that under girds all three areas of computer literacy (an Outcome of the General Education Requirement at UT Austin), information literacy (defined by the American Library Association in 1989 as learning how to learn), and critical thinking skills (the learning of which are aided by information technology). The Association of College and Research Libraries developed the Information Literacy Competency Standards for Higher Education composed of five standards, 22 performance indicators, and a set of learning outcomes associated with the performance indicators (ACRL 2000). These outcomes describe what students are able to do when they become information fluent.

INFRASTRUCTURE

Transition from development to maintenance – schools/colleges have moved beyond computer laboratories for their students to equipping classrooms with IT technology to enhance teaching/learning, and attention is not focused on finishing IT installation in remaining classrooms and providing replacement and maintenance of existing hardware and software.

Digitization – increasing access to teaching/learning materials by converting them from single copy, originals to multi-copies, digitized format is being practiced in several schools/colleges, namely Architecture, Communication, Fine Arts, Liberal Arts, and Social Work, as well as the University Libraries and the Harry Ransom Humanities Research Center. The materials being digitized range from visual images (paintings, pictures, etc.) to books and manuscripts to audio/video recordings. The DASE program with Fine Arts is an excellent example. Currently there appears to be a substantial backlog of these materials.

Video Capture – a significant number of schools/colleges are interested in capturing lecture/presentation content and making it available to students via pod casts, video streaming, etc. Systems have been developed that significantly automate this process and make it relatively easy for the faculty to take advantage of video capture, and some schools/colleges like Communication and Education have significant experience and expertise in the use of these system.

Teaching/Learning Support Units – the Colleges of Education and Engineering have developed significant teaching/learning support units in the form of the IDEA Studio in Education and the Faculty Innovation Center (FIC) in Engineering. Both of these units help faculty incorporate information technology into their teaching and research and provide workshops, training, and consultation. The FIC also supports the video capture and distance learning activities of the Engineering College.

IT and Renovation – many units request ITAC funds for spaces being renovated, raising the question of whether such costs should be a formal part of renovation planning and bids separate from ITAC requests.

PLANNING

Long-Range Strategic Planning – few schools/colleges/administrative units have developed long-range plans for their IT development and operations. Part of this is undoubtedly due to the rapid changes in IT and the difficulty of planning when such rapid change is occurring. However, developing IT to support equipping computer laboratories, classrooms, digitizing, video capture, etc. comes more slowly and is more purposeful, and there is a need for schools/ colleges/ administrative units to plan for these types of changes and the life-time cycling and costs that go with sustaining any technology. Being able to anticipate funding needs a few years in advance is essential for IT development on campus.

Stakeholder Involvement in Planning – involvement of faculty, students, and staff in IT planning is mandatory if the IT needs of these stakeholders are going to be met. While some schools/ colleges have long-standing committees made up of these three groups to discuss and plan their IT needs, others do not or have only ad hoc planning.

STAFFING

IT Staff – almost without exception, schools/colleges/administrative units are operating shorthanded when it comes to IT – some more than others, of course. Permanent staff are supplemented by students who, on the one hand can understand and relate to the needs of their colleagues, but on the other are performing services that perhaps are better done by permanent staff. An accepted ratio of FTE students to FTE staff or something similar is needed to estimate the number of IT staff that should be employed in the schools/colleges to support operations. Such a ratio would of course have to be adapted to different departmental structures.

BLACKBOARD

The survey of Blackboard use across campus revealed several findings.

1. Implementation of Blackboard on campus has been uneven at best, and usage has often outstripped the capability of ITS to support it and DIIA to train (as a consequence some colleges provide their own training). ITS has been unable to make available the newer versions of Blackboard in a timely fashion. Support of Blackboard has been inconsistent decreasing its reliability. All of these factors have hindered widespread adoption of and confidence in Blackboard.
2. Queries during the Committee's site visits reveal that Blackboard is being used by approximately half of the faculty on campus (more in some schools/colleges than others) and that usage is limited primarily to the basic features of the software. Few faculty are making use of the more advanced features, although it is not clear whether this reflects need of those features or need for training on the use of those features.
3. Some schools/colleges are using alternative course management systems with perceived superior capabilities to Blackboard.
4. Demonstrating the value of Blackboard for teaching/learning, consistent, user-friendly and reliable operation, and effective and pervasive training appear to be the current limiting factors on the use of Blackboard. Significant improvement in all of these areas is needed if the acceptance and use of Blackboard is going to increase to any great extent.

RESOURCES

Transition to Flat Rate Tuition – the transition to Flat Rate Tuition has produced confusion among the schools/colleges about the source of IT funding. Because the IT funding embedded in the Flat Rate Tuition for a given school/college is what was in place during AY2004-05 and because the amounts are generally unknown to the deans, the schools/colleges are unsure of the amount to be earmarked for IT infrastructure and operations from Tuition income. Further, over time it is expected that budget pressures will force schools/colleges to use IT-related funds for other purposes and the AY2004-05 amounts will dwindle in relation to total budgets so that internally generated IT funds will become less and less. Except for those few schools that are graduate programs only and still generate income from their course-related fees, it appears that ITAC funding will become the sole source or at least a significant source of funding for IT in each school/college.

Future IT Funding Sources – future funding of IT on campus needs to be clarified. On the one hand, IT school/college funding could be achieved entirely through funds coming to the schools/colleges from Flat Rate Tuition and course-related funding from their graduate programs, but funding for units like the Accessibility Institute, the University Libraries, and

others would have to come from elsewhere. On the other hand, if school/college/unit funding came entirely from ITAC funding (except for graduate program generated funding), then those units would lose control of a significant portion of their IT funding. Somewhere between those two extremes is the appropriate balance.

Future IT Funding Amount – it is very clear that the funds that ITAC allocates coupled with the funds the schools/colleges generate are inadequate to meet IT needs on campus. Just as the tuition increase approved by the Regents in March was to support infrastructure enhancements on campus, an increase is needed to support IT on campus because of the critical role that it plays in teaching/learning, research, and administrative operations. A significant increase in ITAC funds to allocate is needed.

BEST PRACTICES

Identifying and Spreading Best Practices – through the site visits and Vision Plans, the Committee has discovered that there are clear best practices that have developed in the schools/colleges. For example, the Colleges of Education and Engineering have significant teaching/learning support units; the Colleges of Liberal Arts and Fine Arts have created a searchable digital archive with easy slide show creation capability; the Colleges of Communication and Education are capturing presentations with well designed, efficient, and effective hardware/ software systems; etc. These and other best practices should be described and disseminated to the campus and means developed to help other schools/colleges adopt and adapt these practices. Ways should be found to enhance the involvement of the central units, ITS and DIIA, in this process.

REFERENCES

- American Library Association. 1989. American library association presidential committee on information literacy: Final report. School Library Media Quarterly. Summer 1989, Vol. 17, p244-26.
- Association of College and Research Libraries. 2000. Information Literacy Competency Standards for Higher Education.
<http://www.ala.org/ala/acrl/acrlstandards/informationliteracycompetency.htm>