Strategic Plan for Instructional Technology at IPFW 2006-2009

submitted by

The Steering Committee for Strategic Planning for Instructional Technologies

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Preamble
The Strategic Plan for Instructional Technology at IPFW was developed by a special steering committee appointed by the VCAA. Using data and input from faculty and staff focus groups, interviews with key administrators, and a student survey, the committee drafted a plan. The plan outlines the goals and strategies which are to guide IPFW’s visioning, planning, promotion, support, evaluation, and funding of instructional technologies from 2006-2009. Instructional technologies are defined as the devices, materials, and related resources used to support the process of teaching and learning; and as the systematic development of instructional specifications using learning and instructional theory to ensure the quality of instruction.

The plan is aimed at optimizing operational effectiveness: developing, implementing, and improving procedures, tools, and methods that will create and sustain an exceptional, accessible learning environment for a diverse community of teachers and students. The plan focuses on processes.

Goals and Strategies
Within the domain of IPFW’s control, the university should conceive, plan, use, support, and evaluate instructional technologies to facilitate and improve the process of teaching and learning for a diverse community of faculty and students by advancing toward the following goals:

1. Pursue continuous visioning and planning in support of faculty-defined needs for instructional technologies with collaboration from students, administrative support units, and the community.
   
   - Implement an institutional planning process which provides for the assessment and evaluation of needs and requirements for instructional technologies and which ensures compliance with governing policies, standards and laws.
   
   - Make available multiple avenues for continuous input into the visioning and planning process.
   
   - Establish the needs of the workplace, economies of scale, and sustainability as criteria for adopting new instructional technologies, and implement their use in planning.

2. Design organizational structure and functioning to transparently support teaching and learning with instructional technologies.

   - Promote reliability, accessibility, flexibility, and security as critical measures at every level of operation, maintaining a balance among them.

   Supporting data
   - In every focus group and interview conducted with faculty, staff, and administrators, respondents emphasized the need for improved reliability of classroom technologies.
   
   - In a recent survey of 237 students, lack of reliability of the wireless network and of WebCT were the two most frequently cited student concerns. More than 50% of students surveyed noted that a more reliable wireless network would allow them to use their laptops on campus.
   
   - Sixty-nine per cent of the students surveyed (n=237) found WebCT, which provides access to course materials via the Internet, useful or extremely useful. (See chart on page 6.)
   
   - Students complained that there were not enough computer lab machines available.
• Students use computers to do their class work in a variety of locations: home, at work, in the computer labs at school. Nearly 59% of them have high-speed access to the internet.

• The fastest growing number of students who enroll in Internet (WebCT enabled) and television courses are “on-campus” students who do so because these courses allow them to schedule around course time conflicts, work, and family.

• In every faculty and staff focus group and interview, respondents emphasized the need for access to classroom technologies (computer, projector, video playback, internet/LAN connection) in every general classroom.

• Having a range of tools (hardware and software) available in the classroom would provide faculty with the flexibility they need to adapt classroom activities to student needs, and to be innovative and creative in their teaching

  o Define in the organizational structure a unit to effectively manage and coordinate instructional technologies across the institution.

    Supporting data
    • The committee was told that the coordination of instructional technologies was disjointed.

  o Organize reliable and consistent support for instructional technologies through coordination with all units and individuals having a role to play in providing them.

    Supporting data
    • Faculty and staff frequently mentioned their need for training, orientation, consistent documentation, and support for all instructional technologies.

    • Faculty, staff, and administrators emphasized that students needed more training in using technology to support their learning, in spite of their high level of skill in using technology for entertainment

    • Faculty stated that either they did not know who to call for help in developing or using instructional technologies, or that they were “bounced” from one support unit to another to seek help on their own.

3. Provide leadership, training, and support to enable faculty to customize course offerings for diverse learning styles and contexts, to enhance student learning, ignite pedagogical innovation, and promote the scholarship of teaching and learning.

  o Promote and encourage the innovative use of instructional technologies across diverse teaching and learning environments.

    Supporting data
    • 90% of the students surveyed said that they want technology to be used to provide them with specific class materials; 83% said the technology should be used to facilitate contact with their teachers and 75% said that the biggest benefit to their learning was the use of technology to interact with their instructors.

    • Students identified using laptops and access to a reliable wireless network as their current and future priority; only 22% said that they bring a laptop to campus.
Nearly 90% of the student respondents bring cell phones to campus; 74% bring calculators. 22% said they bring MP3 players.

- Establish multiple forums for the exchange and dissemination of innovative uses of instructional technologies in teaching and learning.
- Provide support for exploiting instructional technology to improve teaching and learning outcomes.
- Foster educational research about the use of instructional technology.

4. Engage in **continuous evaluation** of instructional technologies.

- Systematically evaluate instructional technologies and their use with special attention to both implementation and desired learning outcomes, and disseminate the results.
  
  *Supporting data*
  - From central administration the committee heard that the results of pilot studies were rarely publicized; at the same time, the central administration was in favor of continuing experiments.

- Develop a robust and flexible set of metrics for the continuous evaluation of instructional technologies related to standard campus operations

- Periodically review evaluation criteria and data for use in planning and visioning.

5. Commit sufficient **financial resources** for instructional technologies to reach and exceed the stated goals, to maintain excellent service, and to provide for growth.

- Create a comprehensive budget for instructional technologies.
  
  *Supporting data*
  - CELT, ITS, LRC, and DCS all have parts of their budgets allocated for instructional technologies.

- Budget technical support as a function of new facilities or capabilities (for example, .25 FTE for each new electronic classroom).

- Invest in support for instructional design services and technology training at levels sufficient to sustain quality teaching across diverse teaching and learning environments. (IPFW has 365 full-time faculty and approximately 400 adjunct faculty.)
  
  *Supporting data*
  - CELT currently has one person assigned to an instructional design role for the campus and one person assigned to technology training
  - ITS has 3 persons assigned to technology training and support for faculty

- Commit sufficient funds for research and development on the use of new and emerging instructional technologies.
  
  *Supporting data*
  - Central administration was in favor of investing in proven technologies, rather than in being innovative
  - Central administration was hesitant to embrace the idea that developing an excellent system of instructional technology is a key factor in attracting and retaining students and faculty
  - Fifty-two per cent (52%) of the students surveyed deemed it “very important” and 33% said it was “important” to integrate technology into their education at IPFW (See chart, page 13). Students highly valued the role technology played in three key areas: communicating with their instructors, completing assignments on time, and improving their
research skills. (See charts on pages 10 and 11.) New and emerging technologies can be instrumental in leveraging student recruitment, retention, and graduation rates, if central administration are willing to embrace technological innovation as a key mechanism in achieving these goals.

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5/22/06
APPENDIX

Selected Charts from
Student Survey on Instructional Technology

Conducted March 2006
Number of respondents: 237
Characteristics of the 237 student respondents

71.3% Female
78.2% taking 12 or more credits in Spring 2006
45.6% rated themselves as Advanced computer users, 40.6% as Intermediate, 7.5% as Expert, 14% as Novice, only 1 said that he/she did not use one.

Time spent on campus per week, not including time spent in class:

<table>
<thead>
<tr>
<th>Response</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 hour</td>
<td>34</td>
<td>14.3%</td>
</tr>
<tr>
<td>1 to 5 hours</td>
<td>75</td>
<td>31.5%</td>
</tr>
<tr>
<td>6 to 10 hours</td>
<td>53</td>
<td>22.3%</td>
</tr>
<tr>
<td>11 to 20 hours</td>
<td>43</td>
<td>18.1%</td>
</tr>
<tr>
<td>21 to 40 hours</td>
<td>24</td>
<td>10.1%</td>
</tr>
<tr>
<td>41 to 60 hours</td>
<td>6</td>
<td>2.5%</td>
</tr>
<tr>
<td>Over 60 hours</td>
<td>3</td>
<td>1.3%</td>
</tr>
</tbody>
</table>

Survey Questions and responses

Where do you use a computer for class work?

<table>
<thead>
<tr>
<th>Response</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home</td>
<td>132</td>
<td>55.7%</td>
</tr>
<tr>
<td>Computer lab at school</td>
<td>86</td>
<td>36.3%</td>
</tr>
<tr>
<td>Work</td>
<td>5</td>
<td>2.1%</td>
</tr>
<tr>
<td>Public access point, such as a public library</td>
<td>1</td>
<td>0.4%</td>
</tr>
<tr>
<td>I do not use a computer for my class work</td>
<td>1</td>
<td>0.4%</td>
</tr>
<tr>
<td>Other</td>
<td>12</td>
<td>5.1%</td>
</tr>
</tbody>
</table>

What connection speed does your computer have when you are connecting to the Internet?

2) What connection speed does your computer have when you are connecting to the Internet?
1) WebCT Vista
(Please rate the usefulness of each instructional technology in your course work.)

2) eInstruction (clickers)
(Please rate the usefulness of each instructional technology in your ...)
3) Class web-sites outside of WebCT Vista
(Please rate the usefulness of each instructional tech...)

4) Studio/Channel 55/Video/DVD delivered classes
(Please rate the usefulness of each instruction.)
5) Textbook CD-ROMs/web sites

Please rate the usefulness of each instructional technology in your lecture environment.

- **Very Useful**: 10.5%
- **Useful**: 18.1%
- **Somewhat useful**: 23.6%
- **Not very useful**: 17.3%
- **Never Used**: 31.2%
1) Helps me improve my research skills (Please rate each of the following statements about techn

2) Helps me to complete assignments on time (Please rate each of the following statements abou
3) Helps me interact with my instructor (Please rate each of the following statements about tech.):

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>38.2%</td>
<td>37.8%</td>
<td>7.6%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

4) Makes it easier to work with other students (Please rate each of the following statements about technology):

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>59.7%</td>
<td>31.9%</td>
<td>24.8%</td>
<td>8.4%</td>
<td>2.1%</td>
</tr>
</tbody>
</table>
5) Makes my studying more efficient (Please rate each of the following statements about technologies availa.

6) Gives me more control over my learning (Please rate each of the following statements about technologies.)
5) How important is it to you that technology is integrated into your education at IPFW?

1) Instructors don't use technology (To what degree has each of the following factors impeded your use of...
2) Cost of hardware and software (To what degree has each of the following factors impeded your use of tech.:

- Very large degree: 12.1%
- Large degree: 31.5%
- Somewhat: 20.7%
- Small degree: 15.5%
- Very small degree: 20.3%

3) Time to use technology (To what degree has each of the following factors impeded your use of technology):

- Very large degree: 7.3%
- Large degree: 13.7%
- Somewhat: 30.5%
- Small degree: 24.9%
- Very small degree: 23.8%
4) Time to learn the technology (To what degree has each of the following factors impeded your use of technology?)

- Very large degree: 7.7%
- Somewhat: 24.0%
- Small degree: 28.3%
- 25.3% Very small degree

5) Lab computer problems (To what degree has each of the following factors impeded your use of technology?)

- Very large degree: 13.2%
- Somewhat: 15.0%
- Small degree: 18.4%
- 20.9% Very small degree
How would you like to see technology used in your learning experiences?

<table>
<thead>
<tr>
<th>Response</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>make available specific class materials, such as the syllabus, grades,</td>
<td>212</td>
<td>89.5%</td>
</tr>
<tr>
<td>handouts, etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>facilitate contact and communication with the instructor</td>
<td>196</td>
<td>82.7%</td>
</tr>
<tr>
<td>for assessments (e.g. quizzes, exams, assignments, etc.)</td>
<td>183</td>
<td>77.2%</td>
</tr>
<tr>
<td>increase flexibility of scheduling</td>
<td>183</td>
<td>77.2%</td>
</tr>
<tr>
<td>facilitate access to the library and other resources</td>
<td>178</td>
<td>75.1%</td>
</tr>
<tr>
<td>facilitate contact and communication with other students in the class</td>
<td>172</td>
<td>72.6%</td>
</tr>
<tr>
<td>I am not interested</td>
<td>3</td>
<td>1.3%</td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
<td>0.0%</td>
</tr>
</tbody>
</table>