WHAT IS EDUCATIONAL TECHNOLOGY @ Missouri S&T?

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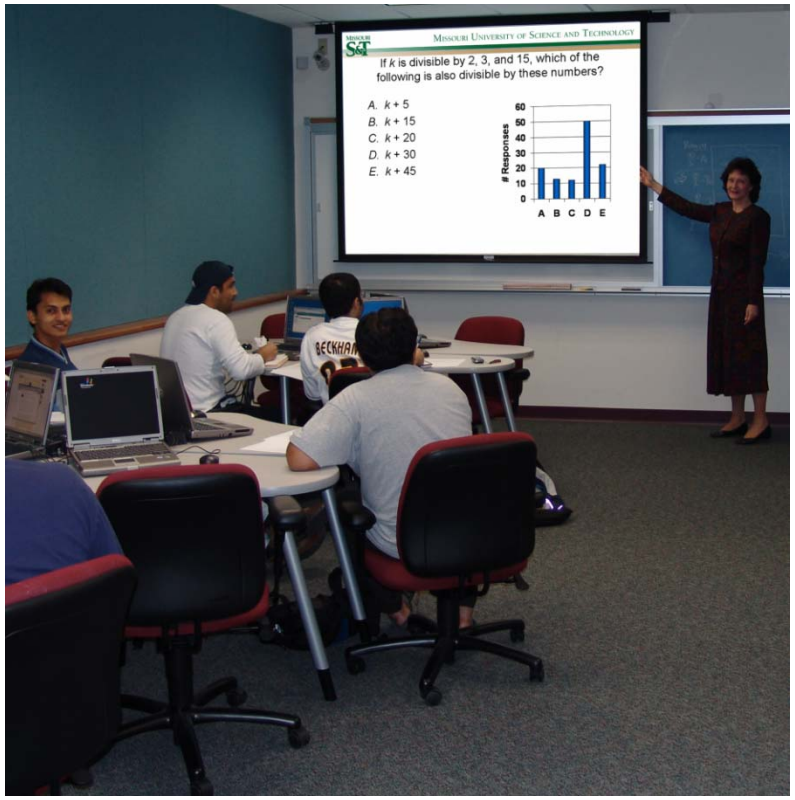
Overview

- What is Educational Technology?
- Meet the Team
- What do we do?
- How can we help you?
- Why is it important?



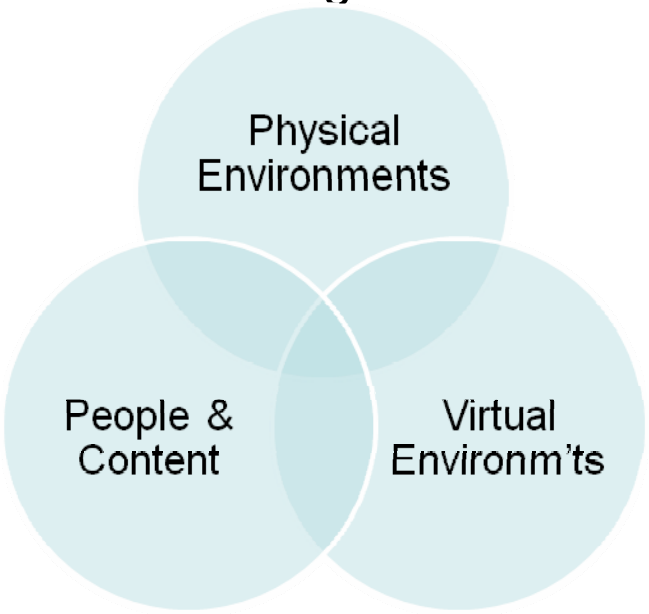
What is Educational Technology?

Definitions of **Educational Technology** on the Web:

- "Includes all components of informational technology used in the delivery of educational materials."
  www.buffalostate.edu/offices/disabilityservices/glossary.htm
- "A complex, integrated process involving people, procedures, ideas, devices, and organization, for analyzing problems, and devising, implementing, evaluating and managing solutions to those problems, involved in all aspects of human learning."
  www.neiu.edu/~dbehrlic/hrd408/glossary.htm

Sometimes referred to as:

- Instructional technology
- e-Learning
- Learning technology



What is Educational Technology @ Missouri S&T?

EdTech@Missouri S&T is a new department within Information Technology (IT) responsible to support the use of technologies to enable and enhance the campus' teaching and learning environments

PHYSICAL v. VIRTUAL

- **PHYSICAL** Teaching & Learning Environments include:
  - Classrooms, lecture halls, auditoriums
  - Laboratories
  - Computer Learning Centers
  - Library
  - Residences
  - Offices
  - Meeting Rooms
  - Hallways and Atriums

PHYSICAL v. **VIRTUAL**

- **VIRTUAL** Teaching & Learning Environments include:
  - Blackboard
  - Web-based environments
  - Email
  - eConferencing
  - Blogs, Wikis, Podcasts
  - Virtual Desktop Environments
  - PCs, Smartphones, Laptops, MP3 Players
  - WiFi Hotspots

Meet the team

Meet the Team

- Meg Brady megbrady@mst.edu
  - Director
- Angie Hammons hammonsa@mst.edu
  - Educational Technology Specialist
- Malcolm Hays mhays@mst.edu
  - Content Support Analyst
- Gandalf Sidio sidiog@mst.edu
  - System Support Analyst & Technician

Meet the Team

- Ken Arvieux
  - Classroom Tech Support (temp)
- Sarah Lewey
  - EdTech Student Assistant
- Lauren Brady
  - Learning Space Design Student Assistant

EdTech Team Objectives

Leadership for development and execution of a campus strategy for physical and virtual ***learning environments***

Focused delivery and support of current technology tools to maximize teaching and learning effectiveness

Exploration of emerging technologies and development of ***new and innovative solutions***

Manage transition paths for educational technologies into campus technology infrastructure and academic practices

What do we do?

- Support Services
  - Direct support of people and technology
- Projects
  - Variety of internally and externally funded projects
- Activities
  - Ongoing efforts to collaborate & innovate

What do we do?
Support Services

- Blackboard support
  - Seminars, training, Faculty Learning Community
- Clicker support
  - Training, classroom preparation, Faculty Learning Community
- Classroom Technology maintenance & support
  - ClassTech preparation, maintenance, training/self help, best practices
- Content & Multimedia support

What do we do?
Our Projects

- Virtual Learning Environment
  - TabletPCs, Wimba, VoiceTools, and more
  - Virtual Desktop Environment (Anywhere Computing)
- Blackboard Intercampus Collaboration (BbIC)
- Classroom Technology Planning/Implementation
  - Auditorium/Lecture Hall Technology Solution
  - Lifecycle maintenance & support plan
  - CS 212/213, Language Lab, Centrally Scheduled Classrooms
- Academic Content Solution

What do we do?
Our Activities

- Foster collaborative partnerships with:
  - ITCC
  - Faculty educational research and other projects
  - CERTI and Instructional Designer
  - VCC and DCE and distance faculty
  - Library
- Foster faculty learning communities around technologies, in partnership with CERTI
- Consult with and survey faculty on instructional needs and tools

What do we do?
Our Activities

- Establish inclusive strategic and tactical planning processes for campus educational technologies
- Explore emerging and innovative learning technologies
- Seek external funding opportunities (grants, gifts, corporate, etc.)

How can we help you?

- Reduce the “front load effort” required to adopt a particular tool
- Find appropriate solutions for teaching and/or learning needs
- Connect you with colleagues using similar tools and to other resources
- Answer your questions
- Improve teaching and learning environments based on your needs

Why is it important?

- Enhance teaching and learning
  - Use of materials not otherwise possible to bring into environment
- Enable teaching and learning
  - Accommodate disparate learning abilities
- Extend teaching and learning
  - Reduce/remove time and distance barriers

Why is it important?

- Maximize campus investment in teaching and learning technology tools
  - Identify the right tools for the right tasks
  - Maintain and support the investment (keep it current)
- *Achieve (and exceed) parity with other Top 5 Technological Research Universities*

Why is it important?

Some ways technology can be applied to enhance, enable, extend pedagogy:

- Enhanced presentation of materials – complex diagrams, video, demonstrations, Internet and off-site resources
- Active learning & student engagement – personal response systems (a.k.a. Clickers)
- Computational problem solving: discipline-specific software, student machines
- Simulations and modeling
- Live “online” content delivery – online office hours, study sessions, lectures
- Video/audio capture of content for supplement/review
- Student group collaboration/communication
- Course management efficiency
- And much, much more…

Why is it important? Faculty Experience

- Faculty have provided valuable input on technology needs through CERTI and other surveys, ITCC communication and informally
- Faculty say, technologies provided should be:
  - ***Easy-to-learn:*** Intuitive interface that operates "at the speed of conversation"
  - ***Easily accessible:*** Available from anywhere on campus
  - ***Reliable:*** Supported and maintained by IT so they are ready to use when needed
- Faculty need access to wide variety of support resources on the new technologies available
  - Hands-on workshops/seminars
  - Self-help materials
  - Content conversion services
  - Consultation and experimentation

Why is it important? Student Experience

- Students have provided valuable input on technology needs based on IT, CERTI and Student Council surveys and various round-table discussions
- Students expect:
  - Availability of basic course materials at any time
  - Ready access to course syllabi
  - Grades posted online (via Blackboard)
  - Ubiquitous classroom technology support

Why is it important? Student Experience

- More students bringing computers than ever before
  - 94.42% of incoming freshman in 2007 brought a computer*
  - 78.19% of these machines were laptops*
- Student benefits of increased usage of technology to support education:
  - Immediate feedback provided by personal response systems and online assessments
  - Access to technology outside of classroom for completing homework, projects and research
- Students express concern about:
  - Possibility of increased cheating with technology
  - Failures of technology, especially during class time
  - Instructors going too fast through materials

* Source: “UMR Entering Student Survey 2007”, New Student Programs Office

Why is it important?

EdTech@Missouri S&T is researching:

- Missouri S&T faculty and student survey data
- National Higher Ed survey data
- What our competitor & peer institutions are doing

SURVEY DATA

949 Surveys	Very Important		Important		Total % of VI / I Responses
C. How important was each of these factors in your decision to attend UMR?	# Responses	% Responses	# Responses	% Responses	
Quality of UMR's academic reputation	712	76.72%	197	21.22%	97.94%
UMR offered desired academic program	729	79.41%	166	18.08%	97.49%
Technology available at UMR	460	49.14%	380	40.59%	**89.73%**
Small class size	375	40.14%	417	44.65%	84.79%
Scholarship and financial aid offer	449	48.17%	332	35.62%	83.79%
Personalized attention that UMR offers	301	32.26%	445	47.69%	79.95%
Costs of education relative to other schools	334	35.95%	392	42.19%	78.14%
Prompt response(s) from UMR	303	32.61%	392	42.19%	74.80%
Friends and family	281	30.37%	400	43.24%	73.61%
Campus visit or interview	264	28.60%	413	44.74%	73.34%
Geographic location	209	22.40%	408	43.72%	66.12%
Opportunities for co-curricular activities	185	20.13%	416	45.26%	65.39%
Honors Program	126	13.68%	395	42.88%	56.56%
High school teachers	152	16.34%	339	36.45%	52.79%
High school counselors	119	12.86%	289	31.24%	44.10%
Other/not listed above	146	17.13%	183	21.47%	38.60%
A UMR Summer Camp Program	167	18.09%	141	15.27%	33.36%

Technology is 3rd most important factor in student decision to attend Missouri S&T

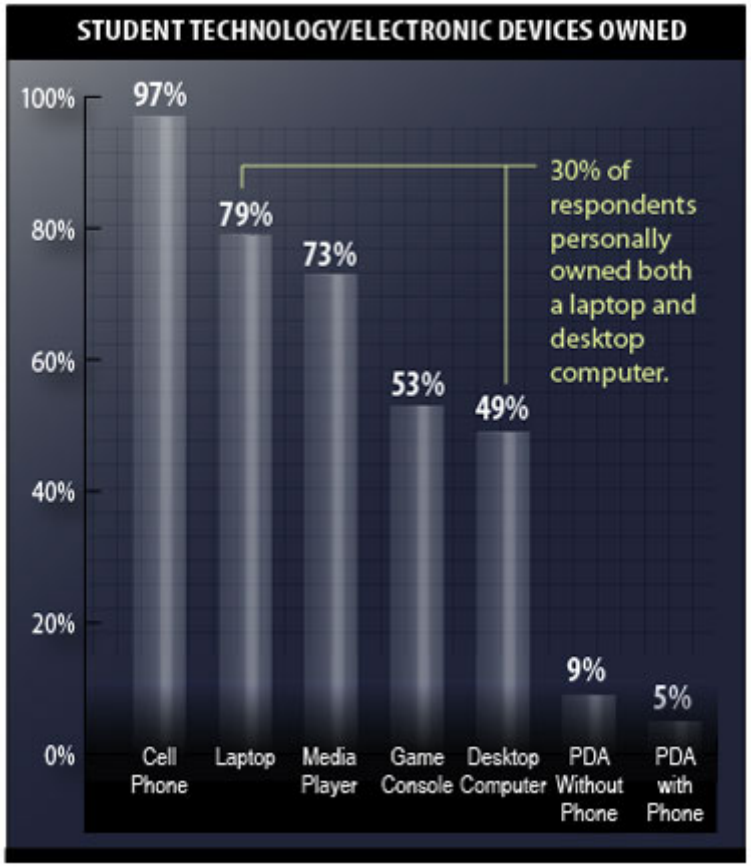
Source: “UMR Entering Student Survey 2007”, Missouri S&T New Student Programs Office

SURVEY DATA

- **92.39%** of students are prepared or well-prepared to use computers
- **67.41%** of students use a computer for social activities (MySpace, Facebook, etc.)
- **97.11%** planned to bring a cell phone
  - An increasing number of students using smart phone technology with email/web access

Source: “UMR Entering Student Survey 2007”, Missouri S&T New Student Programs Office

SURVEY DATA

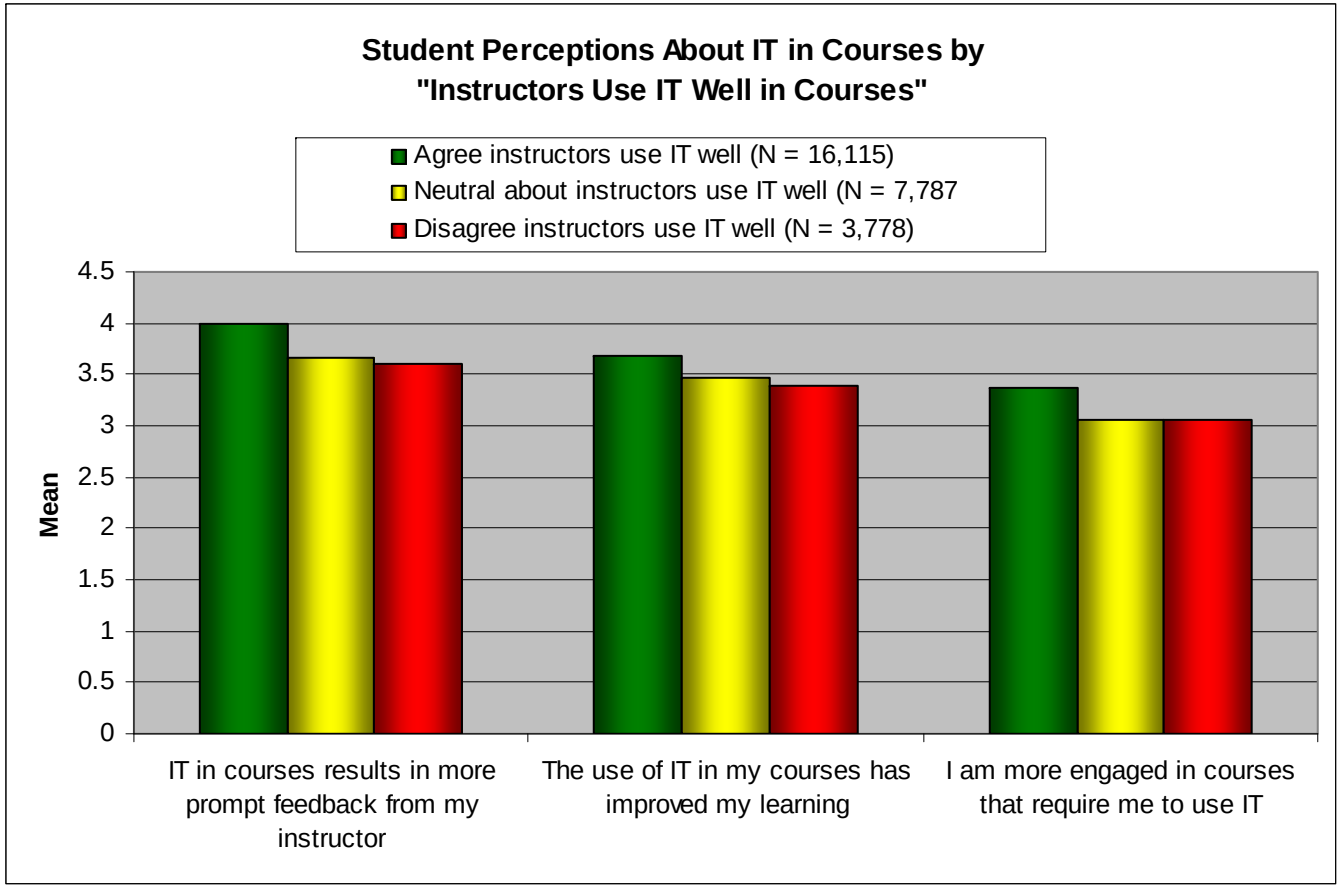


- Research conducted by Eduventures:
  - Most students spend up to 5 hours a day on the Internet
  - Email most popular communication tool
  - 30% of students own both a laptop and desktop machine

Source: *"Snapshot: Personal Electronic Devices Owned by Students,"* Campus Technology, 1/8/2008, http://www.campustechnology.com/article.aspx?aid=57155

SURVEY DATA

Educause Center for Applied Research



Source: *"The ECAR Study of Undergraduate Students and Information Technology, 2007", www.educause.edu/ecar*

SURVEY DATA

Educause Center for Applied Research

- OBSERVATIONS:
  - Instructor skill with IT greatly impacts student perception of the value of IT in courses
  - Curriculum matters when it comes to student use and skill with technology
  - IT in courses is about convenience
  - Overall, students prefer moderate amount of technology in courses
  - Students are increasingly mobile
  - Students expect IT to be available

Source: *"The ECAR Study of Undergraduate Students and Information Technology, 2007", www.educause.edu/ecar*

QUESTIONS?
SUGGESTIONS?

Contact Us At

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http://edtech.mst.edu