

Innovative Instructional Technologies



March 19, 2014

Minnesota State Colleges and Universities

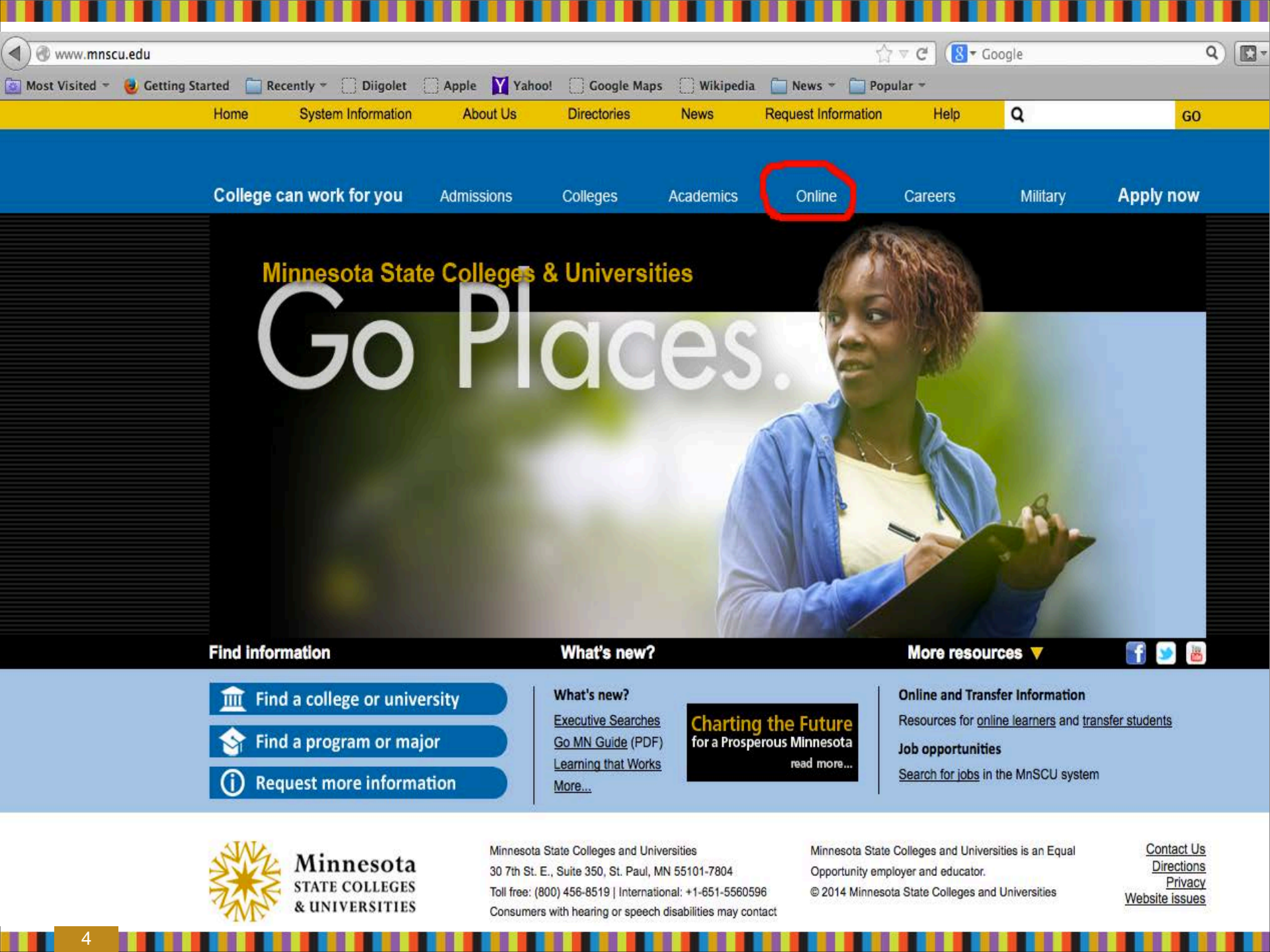
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Charting the Future: Recommendation 4

Expand the innovative use of technology to deliver high quality online courses, strengthen classroom instruction and student services, and provide more individualized learning and advising.

Online courses and programs



Minnesota State Colleges & Universities

Go Places.



Find Information

- Find a college or university
- Find a program or major
- Request more information

What's new?

- Executive Searches
- [Go MN Guide \(PDF\)](#)
- [Learning that Works](#)
- [More...](#)

Charting the Future
for a Prosperous Minnesota
[read more...](#)

More resources ▼



- Online and Transfer Information**
Resources for [online learners](#) and [transfer students](#)
- Job opportunities**
[Search for jobs](#) in the MnSCU system



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MnSCU.edu

smarthinking

GPS LifePlan 

 TRANSFEROLOGY™

i seek

HippoCampus.org
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Minnesota
Transfer

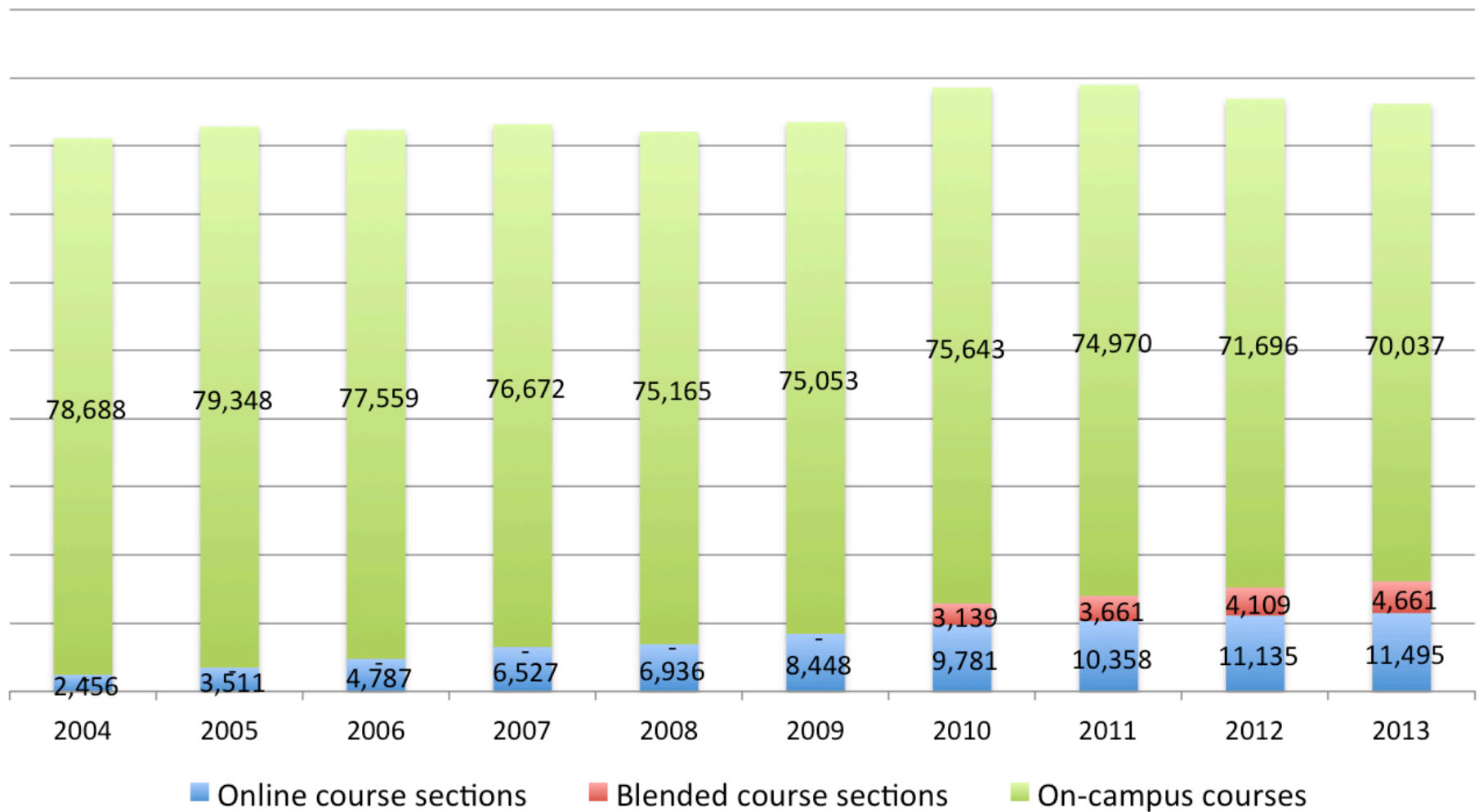
PALS 
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Minnesota
STATE COLLEGES
& UNIVERSITIES

20% of courses are online or blended

10-Year Trend: Online, Blended and On-campus Course Sections



Students...



Mary Beth

"You actually are getting the same material as the students who are on campus."



Jon

"The online option was something that really worked for me."



Deb

"I've been raising a family for many years and I just wanted something totally new."



Frank

"It worked for me because of family."



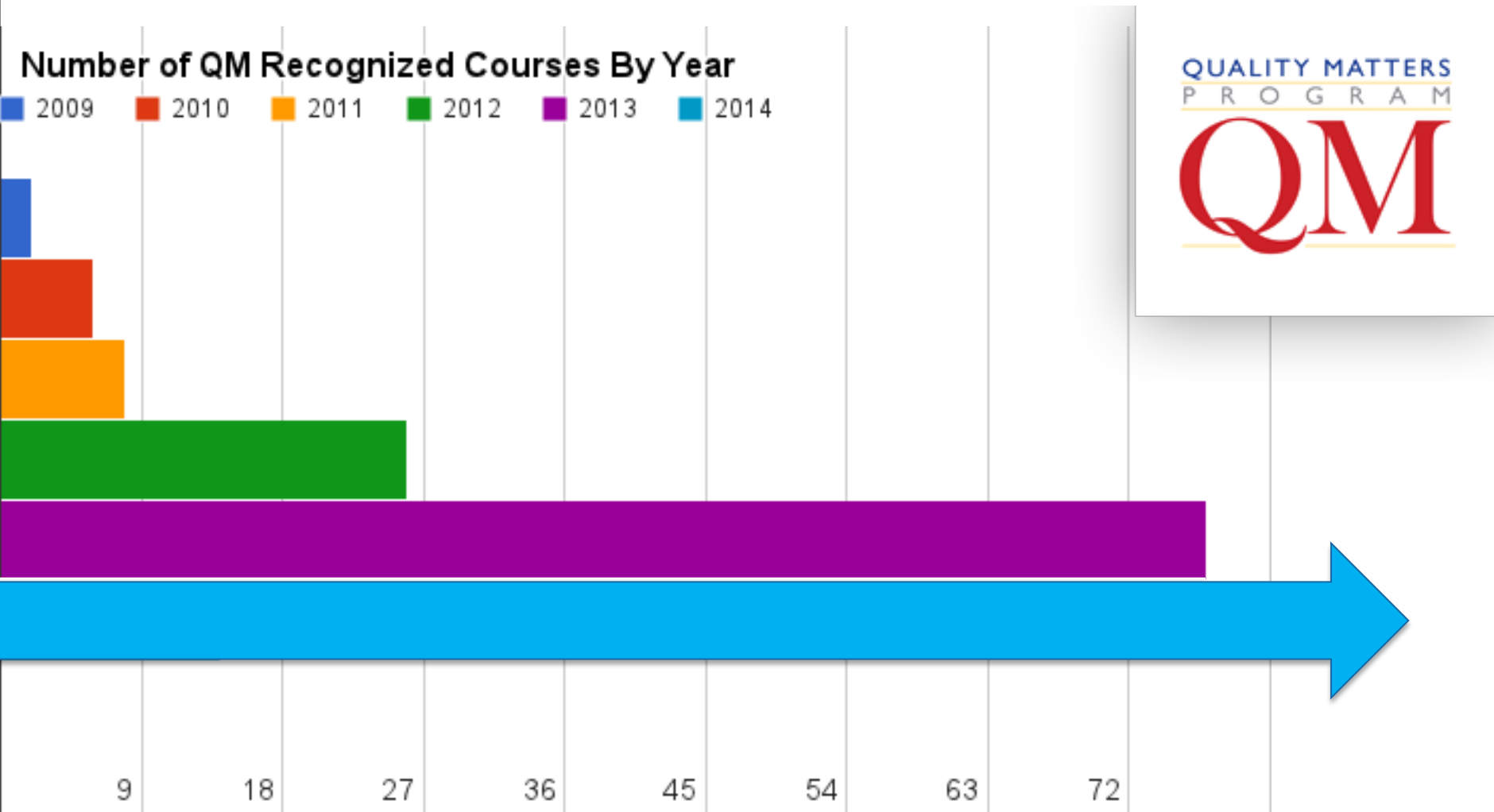
Quality focus

Deliver high-quality online courses

- Quality Matters
 - Faculty-centered peer review of online and blended course design
 - Minnesota Online Quality Initiative
 - Northland Community & Technical College
 - MSU, Mankato
 - 750 faculty trained in QM review process
 - 92 faculty are certified peer reviewers



135 QM-certified courses to date



Why Quality Matters?



“Before Quality Matters, I thought my courses were good. Since I’ve gone through QM, now my students think the courses are good.”

Al Erdahl - Biology Instructor, Riverland Community College
2013 Board of Trustees Educator of the Year

Classroom instruction

Technology in our classrooms



Technology-enabled collaboration

CHEM_ProvostJoseph: CHEM_ProvostJoseph: Using_pH_Meters

» log



Playback Rate: 1.00x (normal)

Contents Notes Comments Search Info

- 0:00 Using and Calibrating pH Meters...Introduction:...
- 2:00 Cautionary Notes...Use a two pt calibration for...
- 4:09 Preparation...Inspect Probe: look at bulb for...
- 5:22 Calibration...Calibration - should be done each...
- 7:03 Use...Press the MODE key to wake up the meter a...
- 11:50 Taking pH Measurements...If measuring immediat...
- 11:53 Finishing Up...Troubleshooting - If the instrum...

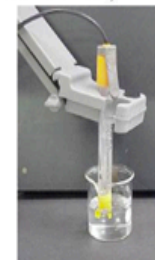
Slides



Using and Calibrating pH Meters

Introduction: A pH meter is a simple voltmeter measuring hydrogen ions through a very thin porous glass bulb.

- Voltage is converted to pH using a standard pH solution and a standard curve.
- Probes - can vary depending on use and meter (ion selective, reference and thermocouples)
- Temperature - Temp can change the activity (H^+ conc) and the probe function and may need to be taken into consideration.



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Cautionary Notes

- Use a two pt calibration for most uses.
 - pH 4-7 or pH 7-10: pick the range for your pH
- Never use probe to stir, let sit on bottom of the container or let the stir bead touch it.
- The probe should be suspended
- Store probe in CLEAN deionized water or pH 4.0 buffer in separate tube
- Never put used buffer back into stock containers!



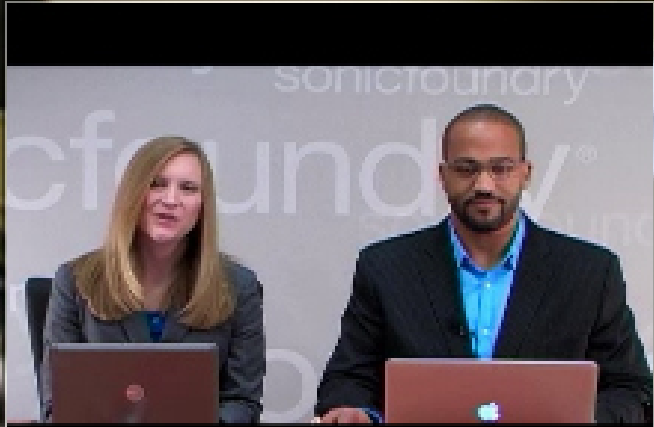
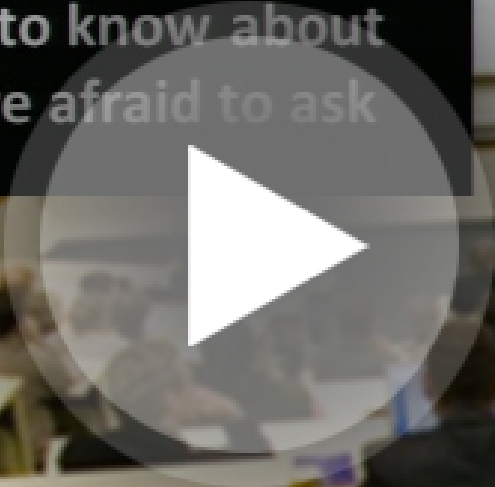
Preparation

- Inspect Probe:
 - look at bulb for intactness
 - Look for filling solution - if less than half way it should be filled. Not all probes use same material - ask instructor
 - Look for the probe to be connected to meter



Lecture Capture 101

everything you wanted to know about lecture capture but were afraid to ask





Simulations









ANDERSCHÖNEN BLATTAREN DONAU

Handwritten text on a scroll, likely a manuscript or historical document, displayed on a wall.



NEUER KINER NACH

Handwritten text on a scroll, likely a manuscript or historical document, displayed on a wall.



What MnSCU students expect

- Personal laptops
- Multiple devices
- A single sign-on for everything
- Abundant computer labs
- Access to all services online
- Wireless everywhere
- Technology-rich content
- Program and graduation planning tools

Better learners, more capable grads

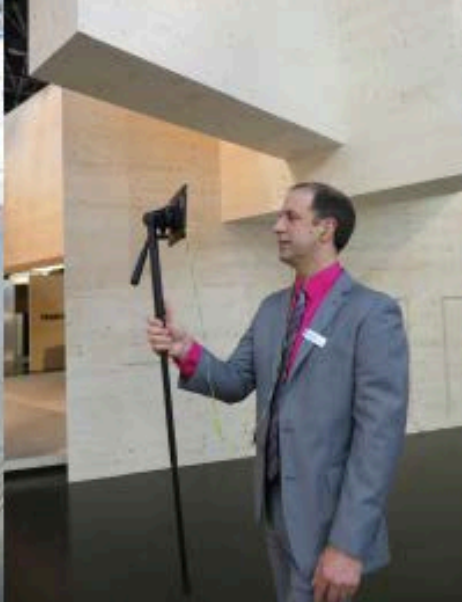


64%

of WSU alumni reported in 2012 that Digital Life and Learning led to the development of computer skills that exceed their co-workers'.

Technology-enabled collaboration



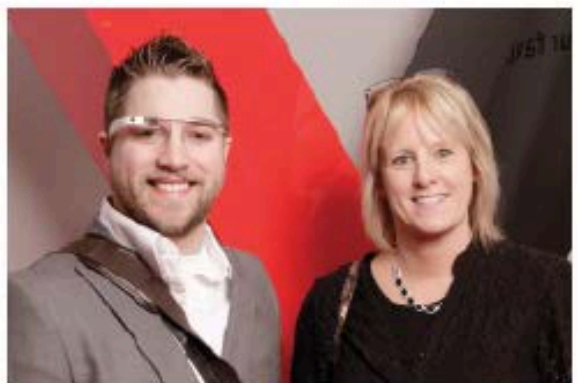


DANA ESPOSITO
Creative Director
Elevation Exhibits
Shrewsbury, MA

RANDY ACKER
President and COO
EXHIBITOR Media Group
Rochester, MN

HANS BRUDER
Managing Director
Octanorm
Filderstadt, Germany

DANIKA STELTON
Bemidji State Design Student
Recently hired by MG Design
Pleasant Prairie, WI



SACHEL JOSEFSON
DR. BONNIE HIGGINS
Bemidji State Art & Design Professors

Bemidji State professors, BSU student and industry experts bring Euroshop to classroom through a realtime virtual field trip from Dusseldorf, Germany to Bemidji, MN with Google glasses and iPad mini.

Danika was the winning designer in a contest that earned her an all-expense paid trip to Euroshop2014.

Collaborative programs

Distributed Learning in
Teacher Education (DLiTE)

OUR SPRING COHORT IS FULL

Apply NOW for Fall 2014 which begins
August 2014

 **e-lect**
e-learning for early childhood teachers

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Think full circle.
THINK MANUFACTURING.



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Individualized learning and advising.

Individualized Learning



Individualized student support

- Predictive analytics
 - Instructors: timely information on students at risk
 - Students: early feedback from instructors
 - Student support staff: data about student needs for out-of-class support
 - Advisors: a more complete picture of student interests and performance

Would you like to chat?



Minnesota State Colleges and Universities

An associate is available to help.
Would you like to start the session?




Yes


No

Chat




Status: Connected

 Kristi (Responding)


 Kristi: Hi, my name is Kristi. How may I help you?


 John O'Brien: Good afternoon. Where are you located?

 Kristi: Hi John, This support center is open seven days a week - and located in northern Minnesota.

 Kristi: How can I help you today?

 John O'Brien: A colleague was asking me if there were any online programs related to graphic design...

 Kristi: Let me do a little research - Hold on please.

 Kristi: There are several online programs - Do you know if they are looking for a certificate, diploma or associates degree?

Type your message here, then click Send or press <Enter>



SWOT Analysis

Strengths

- Systemwide catalog of online offerings
- Online course enrollments
- Quality Matters established
- Solid technology infrastructure (systemwide D2L license, hosting)
- Online student services in place (registration, tutoring, helpdesk)
- Centers of excellence and models for innovation

Weaknesses

- Little coordination in program and course development
- IT resources and strategic placement on campuses
- Need to address new technologies, new markets (mobile; instructional gaming; out of state and international)
- Lack of individually tailored instruction

SWOT Analysis

Opportunities

- Address several CTF goals
 - Collaboration in curriculum development and academic planning;
 - Competency certification
 - Online and classroom-based teaching
- Online and blended could be key in metro baccalaureate strategy
- Deliver high-quality, high-need programs statewide
- Develop virtual centers of excellence
- Individualized learning

Threats

- Need for new investments in technology, infrastructure, and training
- Need clear purpose and strategy
 - Develop new markets
 - Only in Minnesota?
- Lost market share/reputation if we fall behind

Questions

- What developments are most promising?
- What is most concerning?
- As Charting the Future moves forward, what else should we be exploring?