



Achieving Total Systems Integration

How to Successfully Integrate Technology and Multimedia in the Higher Ed Classroom





Achieving Total Systems Integration

Nancy Knowlton
CEO



Source of Material

- Conversations with tech coordinators and deans
 - Early implementers of technology in higher ed classrooms
 - Some later adopters, too
- Many visits on campus



Lessons Learned

- Buying the equipment is the easy part
 - Many excellent products targeted at the higher ed classroom
- Softer issues and implementation are the key to success
 - Getting buy-in
 - Gaining confidence
 - Improving understanding and learning
 - Engaging students and faculty
 - External image of the institution
 - Leadership
 - Quality education



Lessons Learned

- Systematically upgrade classrooms
 - Faculty need reasonable expectation that technology will be available before they will commit to learn
- New buildings should be outfitted at the start
- Build modular systems that can be easily updated over time
- Buy the latest and buy the best
- Wireless everywhere
- Content access
- Learning management system



Implementation Considerations

- Create a vision of a 21st century classroom
- Selection of products
- Training
- Technical support
- Review and upgrades



Vision of a 21st Century Classroom

- Start with a concept of what could be
- Ask for input from academic staff
- Share what other organizations have done
- Ongoing conversation
- Include student participation
 - Not just tools for the academic staff
 - What needs do students have?
 - Online resources and materials
 - Lecture notes
 - Ability to add own notes to prof's materials
 - Entertainment



Selection of Products

- Consult with academic staff
- Present alternatives
- Bring in products for trial and evaluation
- Accept suggestions from staff
- Encourage regular information sharing
- Understand classroom use
- Continue enhancement of system



Training

- Timely
 - Before use of systems starts
- Ongoing
 - Regular updates as academic staff needs
- On-campus learning institute
 - Focus on teaching skills
 - Online resources
 - Support putting materials into digital format



Technical Support – Regular Classroom

- Regular maintenance and checking of rooms
 - Notification systems
 - Bulb changes needed
- Available for troubleshooting during class
 - Method of alerting
- Hot-swap systems available



Tech Support – Distance Ed Classroom

- Special suites with just an instructor
 - Special full-time technical support
 - Audio, video and data
 - Local troubleshooting
 - Remote troubleshooting
 - Back-up systems
 - Allow instructor to fully concentrate on materials, not technology



Review and Upgrades

- Commitment to ongoing review of systems
 - New tools and technologies
- Listening for suggestions from academic staff and students





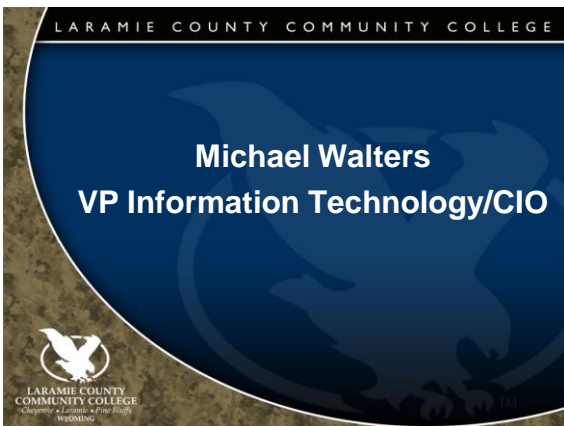
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nancyknowlton@smarttech.com







LCCC

- Located in Cheyenne, Wyoming
- 37 years old
- 4,522 students
- 3,170 FTE
- 26% growth over the last five years
- Three branch campuses



LCCC

- Ranked 2nd in the nation as a digital savvy community college
– by American Association of Community Colleges and the Center for Digital Education



Campus Renewal Project





- Renovated four buildings
- Architect hired a technology consultant
- Designed a “smart classroom”
- Resulting design needed help



- Engaged faculty in the design
 - What features do you want?
- IT staff researched current designs
 - Suggested ideas to faculty
- Finalized a list of features



- **Designed prototype classroom**
- **Faculty buy in was achieved**
- **Hired engineering firm to make all the pieces work together**



Smart Multimedia Classroom Components

- **Two five foot SMART Board™ interactive whiteboards**
- **Two 2000+ lumen projectors**
- **DVD player**
- **VCR**
- **Document projector**
- **Laser Printer**

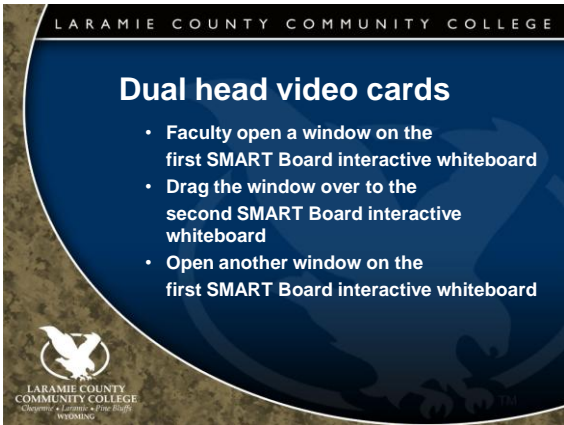


Components (continued)

- **Touch screen wireless control panel – 6x6 inches**
- **PC with dual video cards**
- **Laptop hookup station**
- **Sound system with wireless microphone**
- **Lights controlled from control panel**









Upgrades/Enhancements

- Students assessed themselves a technology fee
 - Very supportive
 - See the vision and support it
- Used to upgrade/enhance classrooms every three to five years



Future Plans

- College committed to adding two full Smart Multimedia classrooms each year
- Add others as funds are available
- Upgrade components to be state of the art



Future Plans

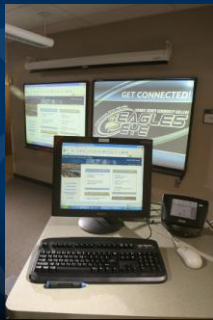
- New residence hall
 - Smart Multimedia room for students to prepare presentations
 - Will also function as a training room



Future Plans

- New building at largest branch campus
 - All classrooms will be setup as Smart Multimedia classrooms







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Questions ?

mwalters@lccc.wy.edu