


From The Chalkboard to the Keyboard: Accessible Technology for Teaching and Learning


Valerie Claire Haven




Introduction: So Why Are We Here Today?

- ▶ Chat about how faculty and staff can support student's use of technology.
 - ▶ Explore Synergistic Learning Theory.
 - ▶ Talk about how technology affects social engagement.
 - ▶ Check out productivity tools.
 - ▶ Share knowledge and wisdom.
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Student Issues: The Real Story!

- ▶ Have difficulty integrating Technology into their academic studies.
 - ▶ Learning curve is often high.
 - ▶ Technology is expensive.
 - ▶ Not enough support when problems arise.
 - ▶ Interferes with social engagement.
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Faculty Issues: I Have To Do What?

- ▶ May be uncertain how to implement disability accommodations.
 - ▶ Students don't identify learning concerns quickly.
 - ▶ Not familiar with how Assistive Technology can affect student's learning or learning community.
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Disabilities and Learning Theory: A Square Peg in a Round Hole

- ▶ Progression of Learning Theories:
 - Accessible.
 - Universal Design for Learning – Differentiated Learning.
 - Inclusive Learning – Personalized Learning.
 - Humanizing On-line learning.
 - Synergistic Learning.
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Synergistic Learning Theory

- ▶ Is based on Systemic Synergistic principles and knowledge creation.
 - ▶ Enables a deep interaction between content and learners.
 - ▶ Provides a framework that acclimates itself to the social/cultural uses of technology and its technological requirements.
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SLT “according to Valerie”

- ▶ Every learning event is Synergistic in nature.
 - ▶ Technology is NOT being used effectively:
 - When applied to current pedagogy.
 - In relation to the learner’s participation.
 - In the social engagement of the learners.
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What the Authors have to Say:

- ▶ “This new paradigm can become a creative framework to support the development of learning technology in the age of connectivity so as to adapt itself to the social structure and technological demands of network times and to satisfy the needs of social transformation and learning innovation.”


-Zhiting Zhu, Youmei Wang, and Hongwei Luo




Emotional Presence: the Missing Link

- ▶ Creation of knowledge is an emotional event.
 - ▶ A person's relationship to technology contributes to learning.
 - ▶ Fear of technology limits our capacity to create knowledge.
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Students Feelings About Technology: Inquiring Minds Want To Know!

- ▶ Deborah Lupton and Wendy Seymour's study on users of Assistive Technology and self-hood.
 - ▶ Determined many users with disabilities have an ambivalent relationship with Assistive Technology
 - ▶ Technology is valued for access, but still creates social isolation.
 - ▶ Only technology used by the wider community is socially acceptable.
 - ▶ People refuse to use technology to stay socially engaged.
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Re-Purposing Assistive Technology: Creating Positive Space Out Of Negative Space

- ▶ Consider incorporating accessible communication platforms – (Accessible Events).
 - ▶ Provide students with learner productivity tools.
 - ▶ Demonstrate productivity tools to faculty and staff
 - ▶ Institute a course “tour guide”.
 - ▶ Include activities using various technologies over the first six weeks of a course.
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The Value of Using Freeware For Productivity Tools

- ▶ Can create toolkits designed for learners with disabilities.
 - ▶ Reframe to support all learners.
 - ▶ Allows students to customize their own learner supports.
 - ▶ Facilitates increased learner engagement.
 - ▶ Learning curve is fairly low.
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Resources for Faculty: Learning While Teaching

- ▶ Post lectures on-line.
 - ▶ Provide lecture notes/PPTs in accessible formats.
 - ▶ Incorporate multi-sensory prompts into lectures.
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Tools for Teaching: Stop! Look and Listen!

- ▶ VoiceThread – supports diverse learning styles. 
- ▶ Visual News – Web site with videos and still images of news and other events. 
- ▶ Project Noah – Web site with images and information on flora and fauna. 

Communicating With Learners: What Did You Say?

- ▶ Use synchronous chat platform as back channel for questions in face-to-face classes.
 - ▶ Have experts in chat room to answer questions beyond scope of lecture.
 - ▶ Divide learners into discussion groups with spokesperson.
 - ▶ Very helpful to shy or anxious learners.
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Communication Tools: The Face-to-Face Without The Face

- ▶ Telegram – Secure messaging among contacts with smart phones.




- ▶ Hands-on Video Relay Service – Web cam communication service for sign language users.




- ▶ Accessible Event – Can be used as stand-alone or integrated into synchronous chat platform.




Making Course Content Accessible: A Serious Access Challenge

- ▶ Will benefit all learners.
 - ▶ Ensure all readings are accessible and usable.
 - ▶ Create assignment or extra credit for students summarizing readings.
 - ▶ Post MP3s of assigned readings in your voice.
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Converting Print Text: Valerie's Inspiration

- ▶ Use photocopier with PDF capability to scan readings.
 - ▶ Check to be sure photocopier has OCR capability.
 - ▶ If no OCR in copier, use Adobe Professional or RoboBraille to tag PDF files.
 - ▶ Tagged PDF useful for mobile learning (M-learning).
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Using Photocopier: It Can Be Your Best Friend

- ▶ Copy machines are readily available.
 - ▶ Copier preserves format of text.
 - ▶ Files can be emailed directly to students if further conversion is unnecessary.
 - ▶ It is really fast.
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Tools For Converting Text: This Is So Easy!

- ▶ RoboBraille – cloud-based conversion service.  RoboBraille.org
- ▶ Convertii – Converts PDF files into MS Word, MS Excel and Text.  Convertii
By CogniView


Reading Tool: I Spilled Coffee On My Book

- ▶ Natural Reader – Free version can be installed on Macs and PCs. 
 - ▶ Suggest learners listen to MP3s while reviewing print text.
 - ▶ Recommend reading while exercising.
 - ▶ Suggest sipping protein drink while studying.
 - ▶ Offer resources for reducing distraction.
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Minimizing Distraction: Tweet! Ping! Video Game?

- ▶ The Zen Productivity Guide: Tools and Tips for Distraction-free Work.
 - ▶ Focus At Will – Brain-based music for supporting work.
 - ▶ View Pure – Reduces distraction when watching YouTube videos.
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Captioning: It Costs So Much!!!

- ▶ Research commercial videos that are already captioned.
 - ▶ Use YouTube auto-caption tool to create captions for short videos.
 - ▶ Auto-caption tool is not precise.
 - ▶ Prepare your transcript in advance and use auto-caption for embedding captions.
 - ▶ Remember descriptive captions for learners who are visually impaired.
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Taking Notes: My Dog Ate My Homework


- ▶ As previously stated posting lecture notes improves comprehension.
 - ▶ Establishing a wiki or blog can assist students to engage in sharing notes.
 - ▶ Allowing students to record lectures and take photos of blackboard illustrations also helpful.
 - ▶ Presenting key concepts in a mind map format is useful.
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Note-taking Tools: Where The Blackboard Meets The Keyboard

- ▶ Audio Note: 
 - Application: That can be downloaded on to smart phones, lap tops, and desktops.
 - Learners can record and take notes which are paired with the recording.

- ▶ Note Pad in the Cloud:
 - Cloud-based note page that automatically saves notes when page is closed. Can be password protected and shared with others.


Continuation:

- ▶ Assessments: Test Anxiety Is Alive And Well.
 - ▶ Create sample tests so learners can become familiar with format.
 - ▶ Offer assessment options:
 - Taking test.
 - Writing Essay.
 - Offer verbal testing option.
 - Offer option of three semester exams or one term paper.
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Questions And Conversation: The Good Stuff

- ▶ Please share your thoughts, comments, and wisdom.

Conclusion: The Final Frontier

- ▶ Educational Technology will continue to evolve.
 - ▶ Mobile learning needs to be considered when selecting technology.
 - ▶ The Digital Divide will continue to affect learning until integrated educational frameworks are perfected.
 - ▶ Recommend decisions be made from the perspective of giving good educational value to all learners.
 - ▶ Things are good and getting better!
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Valerie's Contact Information: Continuing the Conversation

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Thank You!

