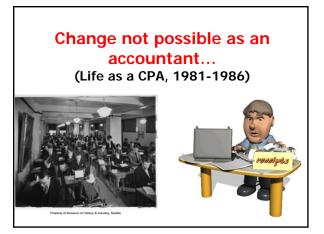


Dr. Curtis J. Bonk Professor, Indiana University http://php.indiana.edu/~cjbonk cjbonk@indiana.edu



Audience Poll #1:Has learning technology has
ever transformed your life.Image: Construction of the second s









Learning is Changing New Technologies = New Delivery Methods...





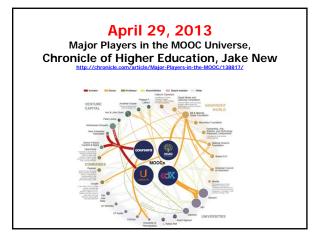


















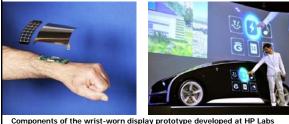








XI. Learning is More Bendable Flexible displays bend what's possible for computers, Jon Swartz, USA Today (May 4, 2012)



Components of the wrist-worn display prototype developed at HP Labs are shown in this illustration. When completed, the device will incorporate a working flexible display powered by solar cells.







Google Glass could change Healthcare, Julie Moore, April 3, 2013 Blue Sky Medical Staff Software http://w 1. Help deaf people to "see" what others are talking about. 2. Communicate with deaf people by showing a live transcription. Real-time medical history taking app that would 3. record & upload doctor/patient interactions 4. Notify the deaf when a loud noise identifies a hazard outside of their field of view



Google Glass - what would you do with it?, Kathleen Poulos, In Crowd Blog, February 22, 2013

Kathi Browne, founder of the Healthcare Talk Community, imagines

- how a physician might use Google Glass... 1. In place of a stethoscope, more sanitary and never cold
- 2. As a means to communicate securely with other physicians To magnify moles or injuries
- 4 Administer visual tests to several patients at one time
- 5. Screen patients for glaucoma
- Access info... CPT codes, drug information, research articles Record office visits via hands-free dictation
- <mark>6</mark>. 7.
- 8
- As a tool in bio-feedback therapy Make a telemedicine consult possible



How Google Glass could revolutionize medicine, Timothy Aungst, iMedicalApps, March 11, 2013

- 1. A nurse scans the medication they are about to give the patient and confirms the correct drug and right patient by overlaying their patient profile with the person in front of them.
- 2. A student brings up their notes and lab reports as they present their patient case to their attending, with data available in real time.
- 3. An oncologist can overlay the MRI scan over a patient, and show the patient and their family where the cancer exists.



How Google Glass could revolutionize medicine, Timothy Aungst, iMedicalApps, March 11, 2013

1. A pharmacist is able to scan medications and verify the proper drugs after comparing the drug with images available in the database, ensuring the right drug is dispensed.

2. A physical therapist can see past sessions with a patient from previous recordings, overlaying their current range of motion, identifying changes as well as progression.

3. Any healthcare professional could walk up to a patient's bed and instantly see all their vitals such as pulse, BP, O2 Sats, etc.



How Google Glass could revolutionize medicine, Timothy Aungst, iMedicalApps, March 11, 2013

1. An emergency responder arriving at a motor vehicle accident is able to live stream to the emergency department the status of the patients and the associated trauma suffered to a patient. The ER is then able to assemble and prepare for a patient's emergency treatment.

2. A surgeon live streams to residents and students a live surgery.



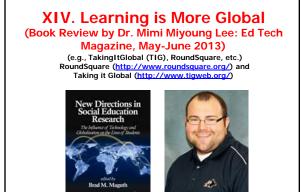
How Google Glass could revolutionize medicine, Timothy Aungst, iMedicalApps, March 11, 2013

1. A visiting nurse seeing a patient in their own home video records and captures images of the patient's wound (for which they are caring for) and sends them back to the physician.

2. A resident's physical exam of a patient is streamed back to an attending physician, who can critique their work and make recommendations on questions to ask in real time.





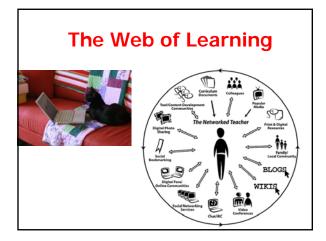


















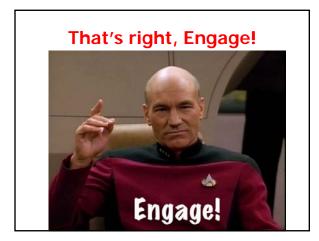
Framework #1: WE-ALL-LEARN: World

- Web Searching in the World of e-Books (i.e., Darwin)
- E-Learning and Blended Learning
- Availability of Open Source and Free Software (e.g., Moodle)
- Leveraged Resources and OpenCourseWare (e.g., MIT)
- Learning Object Repositories and Portals (i.e., shared content)
- Learner Participation in Open Info Communities (YouTube)
- Electronic Collaboration and Interaction (sync and async)
 Alternate Reality Learning (Online Massive Gaming, Simulations, and Virtual Worlds; e.g., Second Life)
- Simulations, and Virtual Worlds; e.g., Second Life)
 Real-Time Mobility and Portability (e.g., iPhone)
- Networks of Personalized Learning (Blogs, RSS)

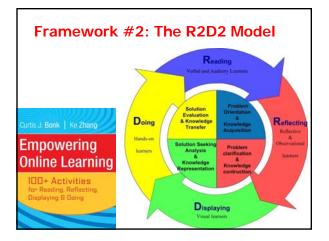




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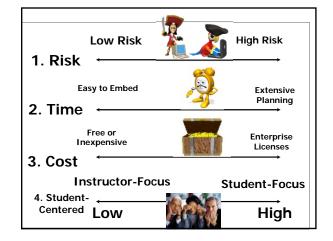


The R2D2 Method

- 1. Read (Auditory and Verbal Learners)
- 2. Reflect (Reflective Learners)
- 3. Display (Visual Learners)
- 4. Do (Tactile, Kinesthetic, Exploratory Learners)







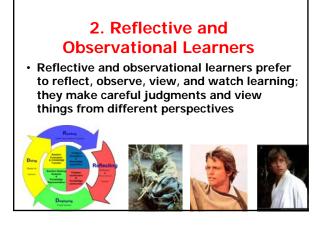










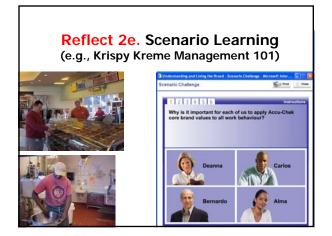


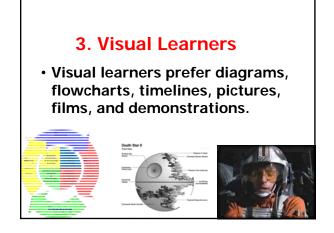


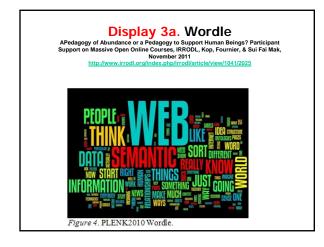


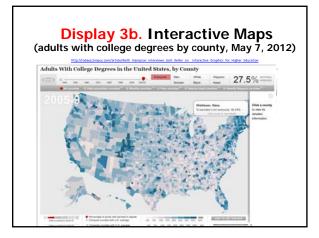


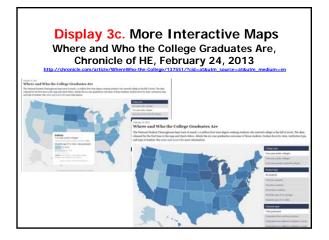


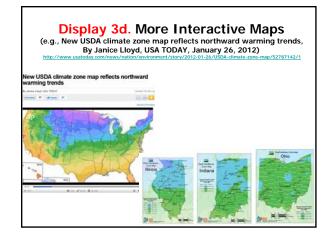


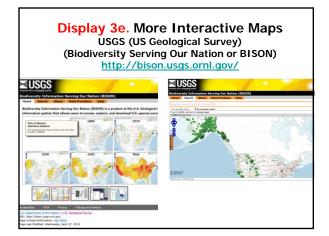


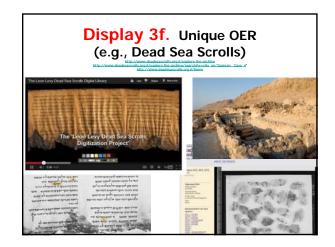




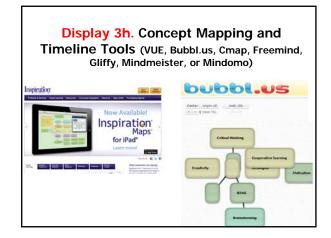


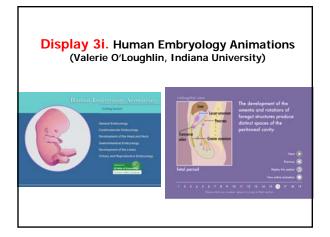


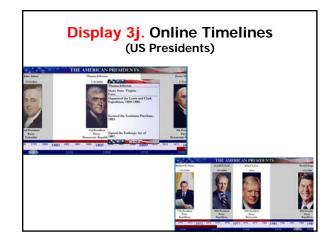








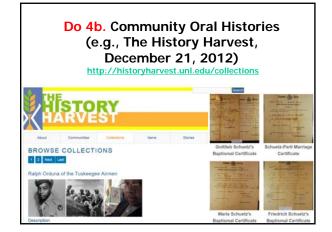


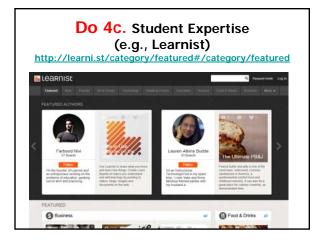






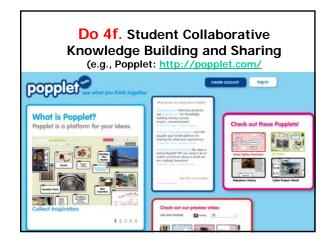








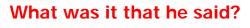






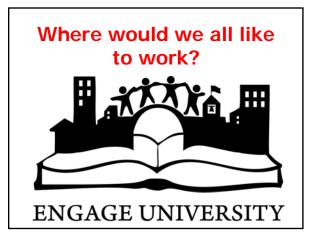












Sleepy U?







How do we engage online?

Ok, Million Dollar Question: What words come to mind when I say that I want to motivate learners?



Motivation Research Highlights (Jere Brophy, Michigan State University)

- Supportive, appropriate challenge, meaningful, moderation/optimal.
 Teach goal setting and self-reinforcement.
- 3. Offer rewards for good/improved performance.
- 4. Novelty, variety, choice, adaptable to interests.
- 5. Game-like, fun, fantasy, curiosity, suspense, active.
- 6. Higher levels, divergence, dissonance, peer interaction.
- 7. Allow to create finished products.
- 8. Provide immediate feedback, advance organizers. 9. Show intensity, enthusiasm, interest, minimize anxiety.
- 10. Make content personal, concrete, familiar.

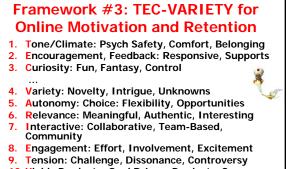


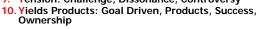
Intrinsic Motivation

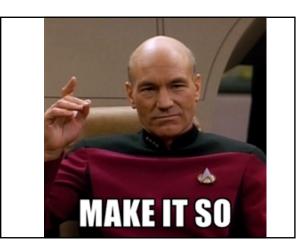
- "...innate propensity to engage one's interests and exercise one's capabilities, and, in doing so, to seek out and master optimal challenges
- (i.e., it emerges from needs, inner strivings, and personal curiosity for growth)

See: Deci, E. L., & Ryan, R. M. (1985). Intrinsic motivation and self-determination in human behavior. NY: Plenum Press.

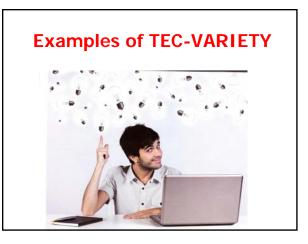


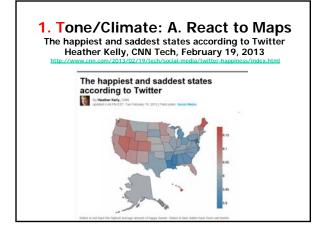






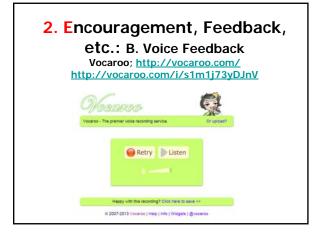










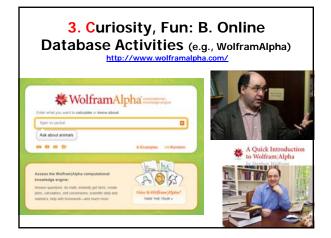










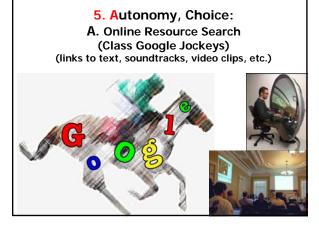


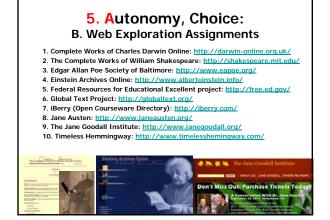


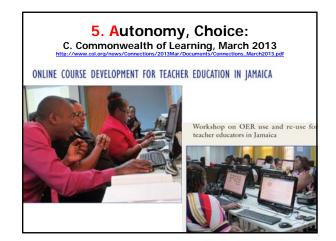


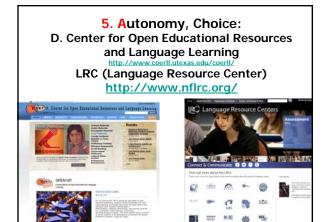












Poll #4: Which of the first 5 motivational principles will you use the most?

- A. Tone/Climate
- B. Encouragement/Feedback
- C. Curiosity/Fun
- D. Variety/Novelty
- E. Autonomy/Choice/Flexibility











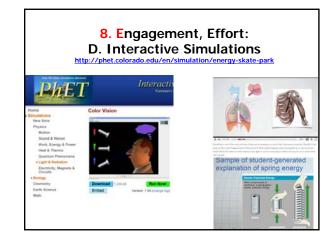




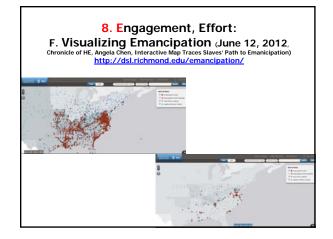










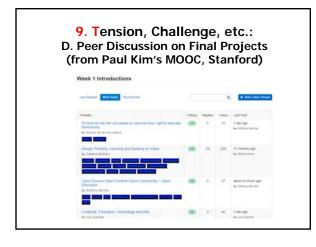


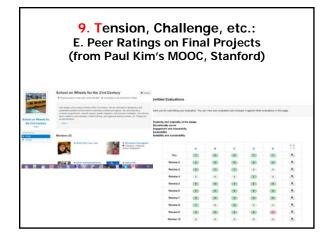
































Poll #6: Which of the last 5 motivational principles will you use the most?

- A. Relevance/Meaningfulness
- B. Engagement/Effort
- C. Interactive/Collab/Community
- D. Tension/Challenge/Dissonance
- E. Yielding Products/Goals











