INTERACTIVE DATA DISSEMINATION AND LEARNING FOR THE TECHNOLOGY BASED SCHOOL

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TODAY’S INDIVIDUAL

Uses technology based information and education on a daily basis.

• Smart Phone (Iphone, Android, Google)
• Smart Watch (Apple, Fitbit, Garmin)
• Smart TV (Netflix, VUDU, Amazon)
• Wearable health technology (Fitbit, Garmin, Phillips)
• Tablet (Microsoft, Ipad, Galaxy)
• Computer
• Home Automation System (Nest, Leviton, Alexa)
• Vehicles
• Virtual Reality (Oculus Rift, HTC Vive, PlayStation VR)
• Payment Systems (PayPal, Amazon, Apple Pay)
• Social Media Systems (Facebook, Twitter, Google)
INFORMATION EVOLUTION

• More information is available than ever before in the history of the human species. We have access to information in multiple formats available to us 24 hours a day, 7 days a week.

  • Information sources continually change as well as the reliability and accuracy of the information.

  • Active learning is now more important than ever.

  • Active learning is defined as “a process whereby students engage in activities, such as reading, writing, discussion, or problem solving that promote analysis, synthesis, and evaluation of class content.” (University of Michigan CRLT, 2017)
ACTIVE INVOLVEMENT IN THE LEARNING PROCESS

• According to the University of North Carolina at Chapel Hill, there are two vitally important areas in active learning within the learning process:

“For the mastery of skills, such as critical thinking and problem solving and for contributing to the student’s likelihood of persisting to program completion.” – Four Your Consideration, Center for Faculty Excellence, University of North Carolina at Chapel Hill, November 2009.
The globalization of the gaming industry has brought forward the dynamic of active and immersive learning through both digital and role-play gaming.

Simulation has been adapting to the advancement of technology and exciting new innovations will become available with the continued research and development of 3D virtual reality technology.

Based on the model of cosplay costuming and traditional role-play gaming, information dissemination dealing with a target subject can still be more immersive and realistic than today’s 3D virtual reality technology and can often be overlooked in today’s classrooms and in-residence programs.
DIFFERENT APPROACHES

• The traditional way to learn is from examples where the input domain is controlled and leaves little movement outside of set parameters

• Active learning through role play and simulation is experiential by nature and allows for greater domain generalization and fluidity

• Outcomes include:
  • Soft skills (transversal competencies) such as communication and problem solving
  • Integration of theory and ideas with soft and hard skills – the application of ideas and theory to address real world problems in a hands-on fashion
GAMES AND PLAY DYNAMICS

• A framework for Examining Research and Practice in Digital Games (Sykes & Reinhardt, 2014)
  • Based off of games designed for entertainment purposes, how does game mediated learning occur “in the wild”?  
  • With the use of educational or learning-purposed games, how do the specific games afford particular learner behaviors?  
  • How can insights from the study of games and play inform our understanding of learning?
THE HUMAN EXPERIENCE

- Human behavior and cognition is formed when culture mixes with biology and the situational and environmental context
- Mental processes obtain ‘content’ through immersion in shared social activities and the environment
- Scaffolding these experiences leads to enhanced learning and understanding, often through trial and error
ROLE PLAY & SIMULATION

• One can “Walk in another’s shoes” to predict their actions and behavior, however this tends to lead to Role Thinking instead of Role Playing and does not provide a high level of accuracy or true ‘experience’
• Better results are obtained when protagonists take up the individual roles and not only think through behaviors and actions but also act them out in a realistic fashion
• The more realism and live action the better as this tends to highlight gaps in knowledge and actions
• This provides a ‘safe’ environment to experience potential failure
QUESTIONS