

**Guidelines for use of media in education in a cultural context:
Outcome of final discussion of the 2nd HITS for Education CTMC
Conference**

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A. In using electronic multimedia for education we need to acknowledge:

- 1) That the use of electronic multimedia in education involves choice - choice of what tool to use, what image or sound to present, what opportunity for students use image, text, or sound, and for what duration this use will be provided.
- 2) That the choice to use multimedia is based sometimes on hidden assumptions, and ideally the decisions are based on assumptions about how students learn or in accordance with pedagogical wisdom. But other times, the decision may be made for other reasons. Such use may avoid organizing a lecture, may entertain students, may promote a cause that seems to be worthwhile.
- 3) That the use of electronic media may mean that the use of a traditional educational technique will be replaced.
- 4) That the use of electronic media has effects beyond the initial use.
- 5) That every use of media changes how we think, and that the degree of change will depend on a variety of factors such as age, prior knowledge, culture.
- 6) That culture may be understood as all the regularities to which one has been exposed since infancy, that leave a mark and influence how the individual does anything.
- 7) That persons in different constituencies (school administrator, teacher, student) have different reasons for using multimedia.
- 8) That technology by itself can do nothing and that human beings are required to operate technology.
- 9) That the number of choices for use of multimedia in education can go far beyond what one is already aware of.
- 10) That the most familiar technologies for education are not necessarily the best for the purpose intended.
- 11) That note taking is a positive form multitasking.
- 12) That students are losing their ability to take notes though it is claimed that they are acquiring skills for multitasking.
- 13) That the art of writing may be replaced by keyboarding, and with that replacement so may go fine motor coordination, possibly linked to fine and focused thinking (a testable hypothesis).
- 14) That applied research in multimedia in education, theoretical research in multimedia in education, and the development of new technologies for education are essential to addressing a question about how best to use multimedia technologies in education
- 15) that boards of institutions of higher education that focus on the use of multimedia technology in the university have an enormous task of basing decisions on the foundation of all the knowledge and research that exists on this topic, rather than on their intuitions or what happens to have been brought to their attention
- 16) that the value of new technology to a university administrator is different than that of a student (see recent review article)
- 17) that choice of media technology depends on a theory of the learner

- 18) that understanding how students learn can be informed by collections of good learning situations (good teaching)
- 19) that practice can inform theory

B. Relevant theories include

- 1) reinforcement theory (Skinner),
- 2) classical condition (Pavlov),
- 3) social constructivist theory (Vygotsky),
- 4) neuroscience,
- 5) media ecology,
- 6) narrative theory,
- 7) philosophy,
- 8) phenomenology,
- 9) architecture,
- 10) demography,
- 11) leadership.

C. Guidelines to keep in mind

- 1) Keep it simple. Photoshop is hard. The Yakel and Casswell app is easy and can be used.
- 2) Funds put into technology can be put elsewhere - what is the best use for technology dollars
- 3) The life of technology is short and high maintenance
- 4) Younger generations are computer literate, the digital natives; older teachers need to acquire the skills; they can acquire some but may not know the world of the children who spend their days with media
- 5) Neuroscience reveals brain plasticity into young adulthood; brain plasticity has been the tacit assumption of educational institutions; learning requires brain plasticity; learning changes synapses
- 6) Technology companies like Motorola, Microsoft support research in learning technology.
- 7) Multimedia technology for education can benefit from portable apps students have like cameras on phones for creation of photoclubs based in possible self theory
- 8) Music media (or sound effects media) can be used similarly to find ones voice.
- 9) students, teachers, administrators construct narratives. Narrative is the best way to get a message across.
- 10) Simple tools like Google docs can be used to organize effective group activity