# STORY-TELLING, EMOTION, AND MEDIA IN TECHNOLOGY-BASED MEDICAL EDUCATION

**Joseph V. Henderson, MD**
**Interactive Media Laboratory, Dartmouth Medical School**

## BIO SKETCH:

Joseph V. Henderson, MD, is Professor of Community and Family Medicine at Dartmouth Medical School and Director of Dartmouth's Interactive Media Laboratory (IML). He has over 20 years experience as a multimedia developer and educator, creating large-scale interactive multimedia programs for health professionals and patients. Many of the programs employ an e-learning model invented at IML, the Virtual Practicum. A central aspect of the model is use of stories, emotion, and media (including high-quality motion video). IML programs are noted for being thorough and comprehensive in content presentation, and for being carefully crafted and produced.

The IML team have recently completed a four year project with CDC to develop a next-generation distance learning system for public health. With funding through the Department of Homeland Security, they are currently developing a Virtual Terrorism Response Academy for first responders in law enforcement, fire service, and EMS; the Academy will utilize the Virtual Practicum design, extended to include immersive, 3-D game elements. A new project under the President's DNA Initiative, funded by the National Institute of Justice and the Office On Violence Against Women, will educate professionals in the gathering, preservation, and use of DNA evidence.

Examples of the Virtual Practicum and other programs can be run from IML's website: iml.dartmouth.edu. A broadband connection is required to run the programs. There are also papers describing the Virtual Practicum model.

## ABSTRACT:

The value of story-telling for conveying meaningful, often complex knowledge is widely acknowledged.[1] Less recognized is the "pivotal role of emotion in attention, planning, reasoning, learning, memory, and decision-making"[2] and its value as a powerful motivator for learning. Properly used, combinations of media (video, sound, graphics, text) can be used to tell stories, to convey and evoke emotion and, at the same time, provide factual and contextual information. With the right combinations of stories, the

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[1] E.g., Coles R. *The Call of Stories,* Boston: Houghton Mifflin, 1989; Schank, RC. *Tell Me A Story: Narrative and Intelligence,* Evanston: Northwestern University Press, 1990; Senge PM. *The Fifth Discipline: the art and practice of the learning organization,* New York: Doubleday, 1990; Davenport TH and Prusak L. *Working Knowledge: How Organizations Manage What They Know,* Cambridge: Harvard Business School Press, 1998.

[2] Picard, RW. *Affective Computing.* Cambridge: MIT Press, 2000.

right balance of emotion and intellect, and the right media, technology-based medical education can provide rich, informative, and memorable learning experiences.

Dr. Henderson will very briefly present these concepts, then illustrate them with examples from programs that he and his team have developed. Interactive, simulated cases will include a wounded Marine, a young woman with HIV disease, and new mother who has had a smoking relapse. Recorded interviews with real patients will also powerfully demonstrate the depth of emotion and knowledge that stories can convey.

[1] E.g., Coles R. *The Call of Stories,* Boston: Houghton Mifflin, 1989; Schank, RC. *Tell Me A Story: Narrative and Intelligence,* Evanston: Northwestern University Press, 1990; Senge PM. *The Fifth Discipline: the art and practice of the learning organization,* New York: Doubleday, 1990; Davenport TH and Prusak L. *Working Knowledge: How Organizations Manage What They Know,* Cambridge: Harvard Business School Press, 1998.
[2] Picard, RW. *Affective Computing.* Cambridge: MIT Press, 2000.