EHRs for Education: Mapping the Landscape

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Today’s Menu

• The concept of EHRs for education and the challenges they pose
• Their scope of applicability
• The ideal system
• One approach (of many): VistA for Education (VFE)
Something’s Missing...

• Your piano teacher has a:

• Your flight instructor has a:

• Your informatics instructor has a:
Functions of an “Educational EHR”

- Experiential education: learn by doing instead of by talking or observing
- Non-health professionals can experience technology from the practitioner’s viewpoint
- Educational experiences can be “programmed” to address specific objectives
- EHR can put inserted into simulated clinical experiences
- About 50 more...
Some of the Challenges

• Students obviously can’t learn on deployed systems
• Or even off-line versions of those systems if they have PHI
• And maybe, *for general informatics education*, any one vendor system, customized to one environment, is too specialized
• Also, informatics education requires some getting under the hood
Who Are the Learners?

- Informatics students
- Non-informatics students taking informatics courses
- Health professions students
- Management students
The Ideal System

• Mimics a real production system (not a toy)
• Universal availability
• Easy accessibility
• Learners can “play with” the system: code, configuration, data
• Large n of HIPAA-compliant anonymized patient data
• Complete educational package with student study guides and instructor manual
Training Versions of Vendor Systems: Not The Answer

✔ Mimics a real production system (not a toy)
✘ Universal availability
✘ Easy accessibility
✘ Learners can “play with” the system: code, configuration, data
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?
Complete educational package with student study guides and instructor manual
In Pursuit of a Better Way: Enter the HITECH Workforce Program

Curriculum Development Centers

Competency Exam

Community College Consortia
“Veterans’ hospitals used to be a byword for second-rate care or worse. Now they’re national leaders in efficiency and quality. What cured them? A large dose of technology.”

– Fortune
May 15, 2005
Department of Veterans Affairs

Health Care

• Provided care to more than 5.8 million veterans in 2011

• Diverse care settings:
  » 153 medical centers
  » 745 outpatient clinics
  » Many long-term care and home-based programs

• More than 7.8 million enrollees

• The Veterans Health Administration (VHA) has affiliations with 107 academic health systems

• Trains over 90,000 individuals annually in numerous clinical disciplines
VistA

- Single, integrated Computerized Patient Record System (CPRS) used throughout VA in all health care settings (Inpatient, Outpatient, Long-term care)
- Delivers an integrated record covering all aspects of patient care and treatment
- An infrastructure providing information about any VA patient anywhere
Grading VistA for Education

✔ Mimics a real production system (not a toy)
  – Good “bones” but looks dated
✔ Universal availability
✔ Easy accessibility
✔- Learners can “play with” the system: code, configuration, data
✘ Large n of HIPAA-compliant anonymized patient data
  – The VA’s “big data” not accessible
✔ Complete educational package with student study guides and instructor manual
VistA for Education at Michigan

• Health informatics and MPH students
• A self-study “skill module” with mastery test
• Adapted HITECH workforce program materials for self-study
• Mix of program download by students and use in computer lab
• Very highly rated, but:
  – Many students can’t see beyond antiquated-looking interface
  – Some don’t understand why we can’t use a “real system” (e.g. Epic)
Thanks

• Patti Abbott and a host of others are responsible for making VFE happen
• VFE is just one possible solution
• VFE will be on display at the “lunch and learn” today