



S9.1: Emerging concepts #1

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Emerging concepts #1

Educational technology informed by broader trends, such as:

- Big data
- Machines and CBME
- Artificial intelligence
- Vulnerability of electronic systems
- Post privacy society

Big data

- A lot of data
- Heterogeneous data – shared edges
- Pattern recognition, modeling, predicting
- Activity streams in medical education
- Other behaviours
- Precrime
- Subjectivization

Machines and CBME

- Competency-based medical education
- Rise and rise
- Generally predicated on massive continuous observation, judgment, feedback
- Load on preceptors is going to be crippling
- Electronic systems can help ...
 - who's best? – probably not
 - who shouldn't be in medicine? – much more likely
 - Failure to fail

Artificial intelligence

- 70 years of research since WW2
- No Matrix, C3PO, Terminators, or Replicants
- But ...
- Neural networks
- Learning machines
- Adaptive systems
- Agents
- Cyborgs

Vulnerability of electronic systems

- Cyberwarfare continues to escalate – WW4
- Identity theft, hacking (UC 2 week this May)
- We cannot assume secure systems are completely secure
- Increasingly about risk management and not just about fortification
- Also physical vulnerability – extreme weather, climate change, civil unrest
- Rebalancing of societal dependency on online systems ...

Post privacy society

- Ambient surveillance - everywhere
- Banking, loyalty cards, CCTV, cellphone tracking, vehicle tracking, parking ...
- Office systems, swipe security, work systems (LMS, EMRs, portals etc)
- Big data predictive analytics
- Most of what we do and much of what we might do is known, scrutinized
- Implications for data confidentiality – Presidential full disclosures