theta
4th Annual “Knowledge Translation to Policy Day”: Early HTA

Wednesday, May 29th, 2013
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WHAT IS HUMAN FACTORS?

- The study of how people interact physically and psychologically with products, tools, procedures, and processes
- Working to make the environment function in a way that seems natural to people
HUMAN FACTORS: MULTIDISCIPLINARY

- Engineers
- Cognitive Psychologists
- Industrial Designers
- Graphic Designers
"Medicine has become the act of managing extreme complexity - and a test of whether such complexity can, in fact, be humanely mastered."

Research article

The Canadian Adverse Events Study: incidence of adverse events among hospital patients in Canada

C. Ross Baker, Peter G. Norton, Virginia Finkler, Jing Jia. Five years after 'To Err is Human': what have we learned?

AHRQ PSNet patient safety network
EASE OF USE
User Centred Design

- Analyze User Requirements
- Design & Prototype
- Evaluate

Process:
1. Analyze User Requirements
2. Design & Prototype
3. Evaluate
4. Repeat
 TOOL: USABILITY TESTING

- Representative users
- Realistic scenarios
- Think-aloud protocol
- Record video & audio
CONSISTENCY OF PRACTICE
TRAINING AS AN AFTERTHOUGHT

Bad Design
NEED FOR HF INFORMED TRAINING

- Increased complexity of medical technology
- Disruptive technologies; change in practice
- Diverse use environments (e.g., hospitals, community, home)
- Diverse user population (e.g., clinicians, patient, care givers)
POST-MARKET: REACTIVE

React\textit{ive}

Survive
Follower
Urgent
Travelling without a map
What next?
Limited choice
Rushed decisions
Overwhelmed
Them
Dealing with the past
Risk avoidance
Problem solving
"To Do lists"
PRE-MARKET: PROACTIVE

**Reactiue**
- Survive
- Follower
- Urgent
- Travelling without a map
- What next?
- Limited choice
- Rushed decisions
- Overwhelmed
- Them
- Dealing with the past
- Risk avoidance
- Problem solving
- "To Do" lists

**Proactive**
- Thrive
- Leader
- Important
- A clear direction
- What if?
- Endless possibilities
- Rapid learning
- Focused action
- Us
- Focused on the future
- Prudent risk-taking
- Raising the bar
- ...and "To Don't" lists