Current and Future Usability Experience: Engaging Hospitals, Health Systems and Developers

October 21, 2011
Edna Boone, MA, CPHIMS
Safety, Standards, Infrastructure, and Innovation: Support research funding in the field of human factors related to EHRs and related technologies such as ordering, documentation, and decision support. Such research will allow development of evidence-based usability guidelines for EHRs.
Usability Task Force

Charge: To provide HIMSS membership and the healthcare industry with tools, resources and best practices related to EHR usability required for adoption and optimal use of health IT.  [www.himss.org/usability](http://www.himss.org/usability)
Usability Taskforce

Membership

- 40% Usability Industry
- 25% Academia
- 18% Provider
- 17% HIT Industry
Current Activities

• Website Re-org HIMMS Usability
• Usability Maturity Model Survey
• Mobile Design Tenets
• Usability 101 Workshop: Applied Methods & Insights
• NIST Draft EHR Usability Protocol Response
Usability Maturity in Health Care

• How do we support the development, implementation and optimization of safe, efficient, effective systems and processes?

• How do we facilitate the movement of the heath care & healthcare information technology industry through the maturity model?

• [himss.org/content/files/HIMSS_Promoting_Usability_in_Health_Org.pdf](himss.org/content/files/HIMSS_Promoting_Usability_in_Health_Org.pdf)
Value of Usability to Healthcare Organizations

Value of Usability

Increased Individual Effectiveness, Efficiencies

- Increased User Productivity/Efficiency
- Decreased User Errors/Increase Safety
- Improved Cognitive Support

Increased Organizational Efficiencies

- Decreased Maintenance Costs
- Decreased Customer and Individual Training and Support Costs
- Decreased Development Time/Costs

Improved patient, provider, organizational outcomes
Usability Maturity Model
Usability Maturity Self-Assessment Survey

- Questionnaire identifying which phase in the usability maturity model an organization lies
- Hospital &/or health system personnel is target respondent
- Sample Questions:
  - Is your organization focused on health care teams as end users for major system implementations?
  - Is User Centered Design [UCD] recognized within the organization as an integral part of any system implementation?
  - Do the personnel doing usability work use standard methods and tools?
Mobile Design

Provides guidelines for developing health information technology on handheld devices. The group has developed a series of webinars that highlight the key design tenets, as well as numerous examples of well-designed mobile apps and handheld hardware interfaces.
Workshop
Usability 101: Applied Methods & Insights

• HIMSS Annual Conference Monday, February 20\textsuperscript{th} Las Vegas
• Target Participant: Analysts, Software Developers & Designers, Engineers, Product Managers, Consultants customizing & implementing EHRs
• Hands-on, interactive workshop focusing on real-world scenarios in measuring the effectiveness, efficiency and satisfaction of the user experience with an EHR. Cover usability research methods across the design/development software application timeline. Attention will be given to matching the appropriate usability research method to the associated phase of software development.
Workshop
Usability 101: Applied Methods & Insights

• Research Methods
  – Ethnographic Field Studies
  – Work Flow Analysis – Time & Motion Study
  – Building Personas
  – Focus Groups
  – Survey
  – Card Sorting
  – Formative 1 on 1 usability testing
  – Heuristic/Expert Review
  – A B Testing
  – Summative 1 on 1 usability testing
Workshop
Usability 101: Applied Methods & Insights

• Collaborators:
  – American Medical Informatics Association (AMIA)
  – Human Factors and Ergonomics Society (HFES)
  – Usability Professionals Association (UPA)
  – National Institute of Standards & Technology NIST
NIST Draft Guidance Response

- Technical Evaluation, Testing and Validation of the Usability of Electronic Health Records (NISTIR 7804)
- Oct 26th 3pm HIMSS member meeting to gather comments for response
- Oct 27th NIST educational seminar on draft guidance 2pm
- Nov 10th Comments due
Questions &/or Suggestions

Edna Boone, eboone@himss.org