

Component 7: Working with HIT Systems

Unit 5 – Part 2: Fundamentals of Usability in HIT Systems – What Does It Matter?



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What Happens?

- User satisfaction declines & frustration increases
- Increase resistance – failure to adopt
- Workarounds
- Unintended consequences



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Examples of Poor HIT Usability

- Overly cluttered
- Poor use of screen space
- Inconsistency in design
- Unsortable lists
- Hard to read or annotate
- Lack of safeguards
- Not intuitive

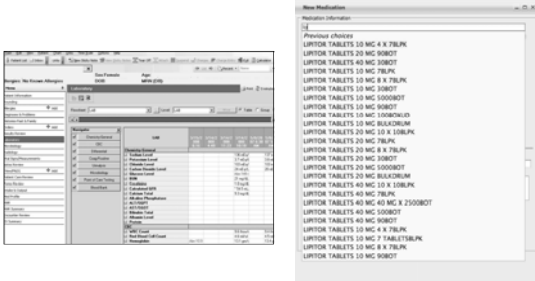


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Examples of Poor HIT Usability



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Why It Matters

- HIT intent is to increase ease of use, safety, efficiency and reduce error
- Increasing pressure
- Rushing towards meaningful use
- "Quicker and Sicker"
- The "Graying of America"



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Strategies for Bottlenecks

- Know your user
- Educate
- Assure easy access to workstations/devices
- Advocate for integrated systems
- Prepare for process change & learning curves
- Systems must support entire care team



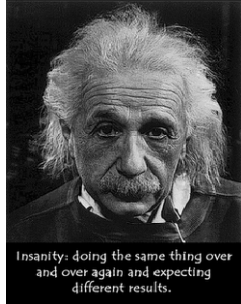
Image Source: <http://www.healthcare-informatics.com>

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Einstein



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Reviewing the Objectives

- Define usability and its relationship to HIT systems.
- Explain the impact of HIT usability on user satisfaction, adoption, and workarounds including error rates and unintended consequences.
- Provide alternatives to HIT usability bottlenecks.

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This completes Unit 5

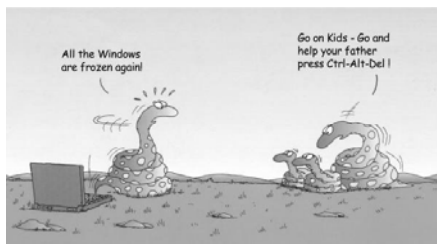


Image Source: <http://www.community-credit.com/images/CtrlAltDel.jpg>

Thank you

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References

- Ergonomic Requirements for Office Work with Visual Display Terminals (VDTs) – Part 11 Guidance on Usability. ISO/IEC 9241 - 11:1998 (E). Geneva, Switzerland. 1998.
- Guappone KP, Ash JS, Sittig DF. Field Evaluation of Commercial Computerized Provider Order Entry Systems in Community Hospitals. AMIA Annu Symp Proc. 2008. Available from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2655948/?tool=pubmed>
- Koppel R, Wetterneck T, Telles JL. Workarounds to Barcode Medication Administration Systems: Their Occurrences, Causes, and Threats to Patient Safety. Jour Amer Med Inform Assoc. 2008; 15(4): 408-423. Available from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2442264/?tool=pmcentrez>
- Campell EM, Guappone KP, Sittig DF, Dykstra RH, Ash JS. Computerized Provider Order Entry Adoption: Implications for Clinical Workflow. J Gen Intern Med. 2009; 24(1) 21-26. Available from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2607519/>
- HIMSS EHR Usability Task Force. Defining and Testing EMR Usability: Principles and Proposed Methods of EMR Usability Evaluation and Rating. 2009. Available from: http://www.himss.org/content/files/HIMSS_DefiningandTestingEMRUsability.pdf
- Usability Basics. Available from: <http://www.usability.gov/basics/index.html>
