Usability/Sentiment for the Enterprise and the ENTERPRISE

AGENDA:

- Introduction
- Problem, Perspective & Roadblocks
- User-center Intranet
- KM for IT
- Dialogue with the End-user
- Enterprise Search and Usability
- System Usability Scale (SUS)
- Sample Size
- JSC Search System Usability Scores
- Future Work
- Take Away
- To Be Avoided

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Too busy chopping wood
to buy a chainsaw
Application Use: U.S. Department of State

Relatively New Program
- On average >70 viewers a week
- Spikes correlate to heavy outreach efforts

Corridor (Launch)
- On average 300 viewers a week
- Spikes correlate to outreach efforts

Top-down, Waterfall Dev.

Organic, Responsive Dev.
KM for IT: Semantic System Tier I

Diagram:
- **Purpose**
  - Collaboration
  - Navigation
  - Organization
  - Search Enhancement

- **Need**
  - Continual
  - Acute

- **Consumer**
  - CMS

- **Producer/Collaborator**
  - STI
  - NEN
  - CMS
  - LLDB
  - SKC
  - Enterprise Search

- **Semantic Components**
  - Taxonomy
  - Ontology
  - Term Metadata

- **Search Appliance**
  - Content
    - SharePoint

- **Interface**
KM for IT: Semantic System Tier II

[Diagram showing processes such as Build, Enhance, Publish, Maintain, Taxonomy, Ontology, Term Metadata, Semantic Components, Content, Google Search Appliance, Automatic Classification, and Interface.]
Dialogue with the End-user

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Office of the JSC Chief Knowledge Officer
Test subject (A) sits in front of computer monitor (B), while facilitator (C) tells him what to do and asks questions. Camcorder (D) powered by squirrel (E) is pointed at the monitor to record what the subject sees.

Meanwhile, cable (F) carries signal from camcorder to TV (G) in a nearby room where interested team members (H) can observe.

System Usability Scale (SUS)

The System Usability Scale (SUS) provides a “quick and dirty”, reliable tool for measuring the usability. It consists of a 10 item questionnaire with five response options for respondents; from Strongly agree to Strongly disagree. Originally created by John Brooke in 1986, it allows you to evaluate a wide variety of products and services, including hardware, software, mobile devices, websites and applications.

Benefits of using a SUS

SUS has become an industry standard, with references in over 1300 articles and publications. The noted benefits of using SUS include that it:

- Is a very easy scale to administer to participants
- Can be used on small sample sizes with reliable results
- Is valid – it can effectively differentiate between usable and unusable systems

Considerations when using a SUS

If you are considering using a SUS, keep the following in mind:

- The scoring system is somewhat complex
- There is a temptation, when you look at the scores, since they are on a scale of 0-100, to interpret them as percentages, they are not
- The best way to interpret your results involves “normalizing” the scores to produce a percentile ranking
- SUS is not diagnostic - its use is in classifying the ease of use of the site, application or environment being tested
Sample Size for Continuous Data

\[ n_0 = \frac{t^2 \cdot s^2}{d^2} \]

- \( t \) = value for the selected alpha level in each tail
- \( s \) = estimate of the standard deviation in the population
- \( d \) = acceptable margin of error for mean being estimated
Test for Normality

- Qualitatively assessing the fit of data to a theoretical distribution
- Pearson Chi Square test for normality. P-value = 0.9569
- Q-Q Plot Correlation = 0.9951
JSC Search System Usability Scores

• Small range of an approximate 50 point range between of 83.35 and a minimum of 31.67.

• Half of the scores were within 51.68 and 67.93 with the median score of 61.01.

• Users have a fairly common perception of the system usability.
JSC Usability Scores: Grade Scale

• Vetted methodology for communicating usability scores.

• 90s= exceptional
• 80s= good
• 70s= acceptable
• <70= cause for concern

• Half of the scores were within 51.68 and 67.93 with the median score of 61.01.
JSC Usability Scores: Adjective Scale

- 67% of responses between ‘Good’ and ‘OK’.
- 75% of responses below ‘Good’
- 33% of responses below ‘OK’
Future work

Poor search results
Unintuitive interface
Unfamiliar with features
Web vs document search
Wrong file type returned
No issue
No authoritative source for information
Training
Case sensitive search
Customer support
Need Center specific search
Search interface too complex
Search of multiple Share Point sites
Secure vs non-secure search
Take Away…

Considerations

• Criticality of usability testing for the intranet and search applications

• Scalability and validity of the System Usability Score to identify areas of concern

• Customization of the SUS, to not only allow examination of the systems usability, but also provide information on user-rated performance of search results.

Resources


To Be Avoided...

Hardware conflict

Your TV is lonely.

Error

User error - Replace user

STOP

OK

Error Error

An error occurred while displaying the previous error.

OK

Warning

You are trying to do something useful, for this you require a proper computer, and a mouse with more than one button. Ask an adult to help you buy one.

huhh?

Proceeding with the operation 'Delete' will erase the contents of your hard drive. What do you wish to do?

Proceed

Delete