

Jan Rehwaldt

University of Tartu, Social Informatics, February 2012

Exercise 2: Find a Social informatics problem and indicate 3 different aspects of it to be analysed with SI tools.

1. Implications of different expectations of hobby and advanced users for user interfaces

Is it possible to create a user interface, which is equally usable for professionals and beginners? How should it look like? Today's software products get more and more complex because a feature, which is introduced once, will hardly ever be removed in later versions. On the other hand does a clear demand for beginner-level software exist. These huge differences in complexity can be seen in many areas, e.g. image editing (Microsoft Paint vs. Adobe Photoshop) or document editing tools (Microsoft Notepad vs. Microsoft Word).

A social informatics problem is, whether it is possible to design a user interface that may be used by beginners as well as professionals. Whereas professional users do not want to miss features, do beginners want to reach simple goals like *Write a letter* or *Rotate an image*.

Several strategies to face this contradict expectations are common nowadays.

Some software products provide switches for enabling an expert mode, but this approach has a major flaw: most people rarely ever visit the program's option menu and, thus, will not figure out that there are more features or a cleaner UI available. Additionally it is not clear which option should be provided at first start. Asking the user could be an option, but does he really understand the implications?

Another approach is to create heavily wizard-based user interfaces, which allow introducing rather complex features even to totally unskilled computer users, but makes live hard for professionals, because it makes the UI slow.

Some recent developments include Microsoft's UI system *Ribbon* [1] [2]. Its major goal was to achieve *discoverability* of features, because user studies showed that the most commonly requested features for Microsoft Word and Excel already existed in those products.

Finally different versions for hobby and expert use can be provided. Implications of this approach are the question, how to support the transition from hobby to power user software and how to discover the point, when the hobby software gets to complicated (which feature to add, which to kick, ...).

Contextual inquiry, user interviews and usage statistics may be used for understanding the different ways of using software.

[1] <http://blogs.msdn.com/b/jensenh/archive/2008/03/12/the-story-of-the-ribbon.aspx>

[2] [http://en.wikipedia.org/wiki/Ribbon_\(computing\)](http://en.wikipedia.org/wiki/Ribbon_(computing))

2. Touch vs. mouse interfaces

A rather new field for social informatics research is related to touch surfaces and the shift from mouse- to touch-based interaction. Its implications are not yet fully understood. How do user interfaces change?

While designing those systems different new aspects need to be taken into account. Due to the gap between screen and touch surface as well as the long distance and angle of the user to the screen (e.g. ticketing machine, ATM, ...) this could lead to a misunderstanding of where to press for triggering a certain button. Therefore buttons need to have rather big margin to each other and be not too small in size. Hyperlinks, as they are common in webpages, are rather complicated to use, because they do not at all indicate where to touch.

Furthermore, it has to be figured out how feedback may be given to the user. Possible methods are vibration (for mobile phones), sound or transition effects as well as other user interface techniques.

A question may arise whether gestures matter? How complex may they become? Easy gestures, such as left- and right-shifting, are well-known for switching between previous and next webpages. May this concept be adapted for every kind of program screens?

For outdoor computers, as mentioned before, additional aspects like direct sunlight and winter (requirement for wearing gloves) may influence the results and usability of touch-based systems in certain situations. Concerning the latter point some vendors already provide gloves, which support the operation of Apple iPods [3].

[3] <http://www.fivepointgloves.com/>

3. Social networks and privacy

A serious and highly discussed topic is the dealing with privacy in internet applications, such as social networks. Contrary to people's political views in real life concerning surveillance (e.g. video surveillance in public, mobile phone tracking, data preservation, ...), seeing it as effecting their privacy and that's why as not tolerable, the own usage of web platforms does rarely demand effective privacy.

It has to be questioned, whether the majority of the internet users are unaware of the risks of their behavior or which reasons leads to their diverse treatment of private data in governmental versus private company's hands. Presumably it is hard to imagine that they have more trust into a commercially lead company than their government.

By means of social informatics methods may be discovered how to raise the awareness of users for internet related products and whether different software, laws or a combination of both can increase privacy or if no regulation is needed.

Furthermore may be surveyed, whether the usage of social media will weaken the political position or vice versa.