

## Mobility and Usability

By: Daniel Szuc Posted: Mar 30, 2002

### Was WAP a flop?

**Gartner** quotes: "Mobile and Wireless Applications Will See Demand and Volatility: The complexity of mobile and wireless applications, combined with a lack of standards, will continue to make mobile and wireless an area of overdue innovation. Risk remains: More than 50 percent of mobile applications deployed at the start of 2002 will be obsolete by the end of 2002.

The lack of sufficiently useful and usable applications will be the biggest barrier to "always-on" consumer acceptance in 2002." [reference](#)

Here are some usability issues that face mobile devices today and moving forward. Some of this comes though recent use of the Treo 180:

**Stability** - A few days ago my TREO got into a Palm PDA version of a General Protection Fault (GPF) or 'blue screen of death'. I was unable to get back into the 'Applications' screen without resetting and wiping the data clean completely. The default-reset button was not working and repeated the same 'data error'. As we rely more on technology to hold our valuable data and with the increased need for real time information on the move as consumers we will demand systems that can provide 100% stability and nothing less.

**Simplicity** - The ability to access applications and data within literally a few keystrokes. This is especially important when we are on the move.

**Screen size and colour** - How big should the screen be? What about people with disabilities? With more dependence on applications and improved data input, people will demand clearer and larger screens for their mobile devices.

**Dropouts** - What impact will dropouts in connectivity have on working with email or video telephony? Devices will have to look at ways to save data or auto save in the case of dropouts.

**Switching Applications** - Easy methods for switching between applications (voice and data) and mobile platforms that can cope with more than one application being active at the same time.

**Input methods** - The small Blackberry like keyboard on the Treo has been reasonably intuitive. Although it does become more difficult to toggle between the pen in one hand and the Treo in the other. I find myself putting the pen in my mouth and using my finger to point to items on the interactive screen. Expect to see some innovation and leaps into voice recognition. What about the virtual keyboard? - The scenario of being on the phone and having to dictate a contact number in the Treo is interesting. Perhaps a way of recording a number that will automatically be added into the Address Book without the use of the Stylus?

**Mobility** - Real ability to work on the move. This needs to be tested with users who are on the move and in different situations (context) to see what real problems they face.

**Voice recognition** - Adding an entry to your address book using your voice. See input methods above.

**Keyboard tests** - Testing the speed of how a person would write an email v expected times using a PC.

**Expected experience and consistency** with the look and feel of web sites in a browser using your PC vs the same web site via your mobile device. Is there a learning curve associated with using the applications on the mobile device after coming from a Windows or Mac operating system? Perhaps less of an issue for Pocket PC users as they get a similar look and feel to the Windows XP desktop?

**Testing on mobile devices.** Will the scenarios be different for mobiles devices? For example, you will not always have people sitting in front of their PCs at work and at home.

**Navigation** - Access to applications and functionality in 1-2 steps maximum as an acceptable metric? Does mobility suggest users will be on the move and in scenarios that require less steps and patience to access the information they require? I think the mobile device that also takes into account 'context of use' and the 'mobile scenarios' people will be in when they use their device will have a better chance of designing more optimal applications and hardware.

**Multitasking** - What human issues will answer the phone, responding to email and answering the urgent 3-way chat have on my way of working and interacting with the device? Certainly the need to move seamlessly between applications becomes important. Again platform stability is a priority as you dont want your mobile device to freeze in the middle of a phone call.

**Tough and resilient** - What happens if I drop my phone? Product designers will have to find ways for PDAs and phones to become tougher as we start to rely and place more data into these devices.

**Always on** - this means always ON. Trusting that the mobile device will never break and will have a clear line to my data, friends and incoming calls.

After 2 months of using the **Treo 180**, here are some observations to date:

- Flip top - After using the Motorola StarTac, I thought this might be flimsy with a high probability of breaking. So far so good.
- No time or date on the phone console
- If you leave the applications list as the last entry and shut off the PDA, it returns to the phone console (currently cannot find a way to make my applications list the first screen to be shown when I open the Treo). I have decided to re-map the browser button on the phone back to applications only requiring one key press instead of the two key press required on the Treo now to access the Applications page.
- Holding the pen (you have to put the pen in an unusual position when you are typing on the keyboard)
- No clear HOME, MENU button
- No light for the keyboard when using this in a dark place i.e. 11pm waiting for a taxi
- Hard to dial a number with one hand
- If you use your finger to dial on the screen it gets dirty; this is less of an issue with a mobile phone dial pad.
- Battery life - the battery power decreases really quickly with talk time. I think battery life for all mobile devices including MP3 players will have to show some improvements.

#### **Positives**

- Keyboard is surprisingly easy to use and typing with the thumbs is quick
- Keyboard makes SMS messaging a breeze
- Size of the phone

#### **Future...**

- True convergence of the mobile phone, PDA, camera and music player. Can it be done?
- What mobile platform and killer applications will start to emerge?
- Will this be a rebirth for Java?

"That's why nobody understands how this will all play out. But the next two or three years could be to the wireless business what the early to mid 80s were to PCs and the mid to late 90s were for the Net-- a period in which vendors compete violently for customers before standards are set in concrete." (ZDNet)

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- Daniel Szuc  
Usability Consultant  
dszuc@apogeehk.com