



ExperienceLab

Design guidelines | Mobile phones

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June 2007

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Summary

An ever increasing range of mobile phones are appearing on the market, each with their own features, designs and interfaces. Our extensive experience of working with a wide range of phones suggests that, despite their many differences, there are some user interface requirements common to all mobile phones. These requirements are presented as guidelines below.

Design Guidelines

Overall design

- The core, most frequently used tasks such as making calls, managing the phonebook and sending text messages should take priority.
 - Minimise the number of screens and button presses required for these tasks.
 - Place these as high as possible on menu lists.
- If it is anticipated that different users may expect to complete a task using different menu routes then ensure it is possible to complete the task using all of these. For example, the alarm clock could be located within 'Applications' or 'Calendar' and should appear in both.
- Similarly, support the different approaches which may be used to perform a task. For example, adding details to the phonebook can be achieved by using the call history, entering the phone number first or by using the phonebook functionality.
- Ensure interfaces are as consistent as possible within each phone and between different phone models, particularly in terms of terminology, menu structure, layout and use of keys within applications. For example, 'Settings' should appear on all phones containing the same functions such as the ability to change the time and date.
- When introducing a new feature to a mobile phone, where possible, mimic interface designs used for similar features elsewhere. For example, provide a similar interface for an MP3 player on a phone as used on stand-alone MP3 players.
- Avoid over-complicating simple functionality such as calendars and alarms.
- Where scrolling is necessary ensure that this is clear for example, by showing half of the next line of text or using a hanging arrow. Provide key content above the page fold as many users do not scroll down.

What they want to see

- Large, good quality screens are preferred as this provides more space for key elements.
- The screens should be clear, simple and uncluttered as users want quick access to key features and do not wish to be distracted by features they rarely use.
- Order listed menu items to ensure that the more frequently used items are visible and quickly accessible.
- A clear font and contrasted shades between text and background (for example, black text on a white background) should be used to ensure legibility.

- On the main menu users prefer icons, which clearly communicate their content, over text labels. If possible, offer textual cues when icons are highlighted to clarify their content.
- Adopt a consistent screen layout: this improves the speed and ease of understanding new screens.
- Ensure the default time for the backlight to remain on after a button press provides sufficient time for slow readers to read a full screen of text. Also ensure that any button press turns the backlight back on.
- Ensure that video phones provide quick and easy functionality to enable users to hide their image from view.

What they want to hear

- Design for the use of phones in public places by providing inconspicuous ‘beep-beep’ and ‘ring-ring’ sounds as well as easy access to muting and volume options.
- Ensure that different sound levels and muting can be set for individual alerts and key press sounds (for example, message, call or alarm alerts).
- Good quality speakers and sounds are preferable particularly for those who listen to music or videos through their phones. Noise cancellation to reduce background noise is also popular as this assists conversations in noisy environments.
- Provide a standard head phone socket, or adapter, as users wish to use their own head phones, particularly for listening to music or video.

The tactile experience

- Users prefer mobile phones to be small, lightweight and well balanced. However, the screen and buttons should not be too small.
- The positioning of additional phone hotkeys should consider where the users hand and fingers will be when holding the phone. The buttons should be easy to reach, but avoid risking accidental presses.
- Avoid cramming too many buttons too closely together on the handset, especially around important frequently used buttons such as the navipad.
- Incorporate quick access shortcuts to support features such as the camera and the phonebook which may require frequent or fast access. For example, to take a photo.
- Consider different hand shapes and sizes when designing the keypad. For example, men, women, the elderly and left-handed users.
- Assign softkey functions sensibly and consistently. For example, avoid switching the delete softkey option from side-to-side as this could lead to users accidentally deleting content.
- Provide easy means to lock the keypad. On phones where the keypad is hidden when not in use, such as flip phones, some keys are still accessible. Either provide a means to lock these keys or ensure these keys do not have undesired affects if pressed accidentally. For example, these should not activate calls, sounds or control volume.

- Different phone models from the same manufacturer should use the same mains power adapter (charger). Transporting a charger can be inconvenient and so the ability to share chargers between friends and colleagues, or to re-use a charger from a previous phone benefits users. This is particularly important where multimedia features mean more regular re-charging is required.

Text input

- The main problems encountered when inputting text relate to changing the text mode. Ensure that quick and well signposted methods are provided to change text case, enable (or disable) predictive text, input numbers and input symbols.
- Provide a consistent method for changing text mode across different models for the same manufacturer (and different manufacturers where possible).
- Wherever possible assist text writing by providing functionality such as automatic capitalisation of the first letter after a full stop, and predicting possible words from the initial letters entered.
- Ensure that users can still access the predictive text options for a word if they return to it after previously moving on.
- Ensure predictive text learns new words that are entered by users.

Keep the user informed

- During processing, when a phone is unable to respond to key presses, a moving icon will reassure users that the phone has not crashed.
- Suitable key depressions and sounds provide feedback to inform users that the key press action has been successful. Also ensure key sounds can be easily turned off.
- Provide information about system status such as the power level, network coverage and GPRS connection on all screens where this information is relevant.
- Inform users about the time and length of the phonecalls that they make to help them manage their spending.
- Error messages should clearly communicate the error and how to resolve it, and should be displayed until dismissed by the user to allow sufficient reading time.
- Avoid displaying graphical messages that provide no user benefit. These slow down the mobile phone and take up limited screen space. For example, advertising banners.
- When content is saved, inform the user of its storage location. For example, when a photo is saved state the route to and name of the folder in which it is saved, also provide a quick route to this folder from the camera.

Navigation & Orientation

- The options provided to a user when a task is complete should reflect the most likely next step for the user. For example, after a new contact is added to the phonebook the option to 'call' the contact should be provided.

- Provide a 'get out' option such as 'Back' or 'Cancel' for every screen in case the user has navigated there by accident.
- Ensure that 'Back' options provide a historical navigation through the previously viewed pages.
- The use of clear and consistent screen titles will help users to orientate themselves and be aware of where they are within the menu structure.
- Provide a quick route back to the main screen, by using the 'end call' button.

Their language, their terms

- Use consistent terminology throughout the interface.
- Avoid technical jargon and ensure, on purchase, that the whole interface is in the local language.
- The menu should use clear, simple terms and options should be grouped in the way users expect. User testing can be useful to verify the chosen groupings.

Personalisation

- Most users only use profiles to mute and un-mute their phones. Profiles such as 'meeting' are seldom used. Minimise the number of preset profiles, for example, to 'general', 'silent' and 'vibrate', and allow users to create more if desired.
- Allow users to specify which features are accessed using shortcut buttons such as the directional arrows on the navipad.

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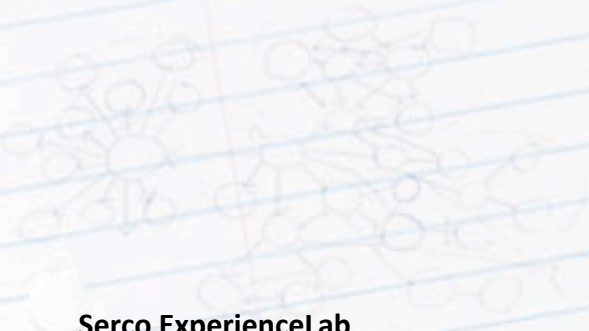
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About ExperienceLab

ExperienceLab (formerly Serco Usability Services), are a global experience design research agency. They help organisations optimise their customer experiences, from web to TV and mobile, from advertising to physical environments. They've been doing this for a while, pretty much since the first computers and networks were created, so they know a thing or two about how to make people, processes and technologies work in harmony.

ExperienceLab use a wide range of techniques to tailor a research solution that fits your business objective, including ideation sessions, proposition analysis, customer needs mapping, usability testing, benchmarking and touch point integration studies. As a co-founder of the UXalliance we also provide research on a global scale.

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