



ITU-T Kaleidoscope 2009 Innovations for Digital Inclusion

ICANSEE: A SIM BASED APPLICATION FOR DIGITAL INCLUSION OF THE VISUALLY IMPAIRED COMMUNITY

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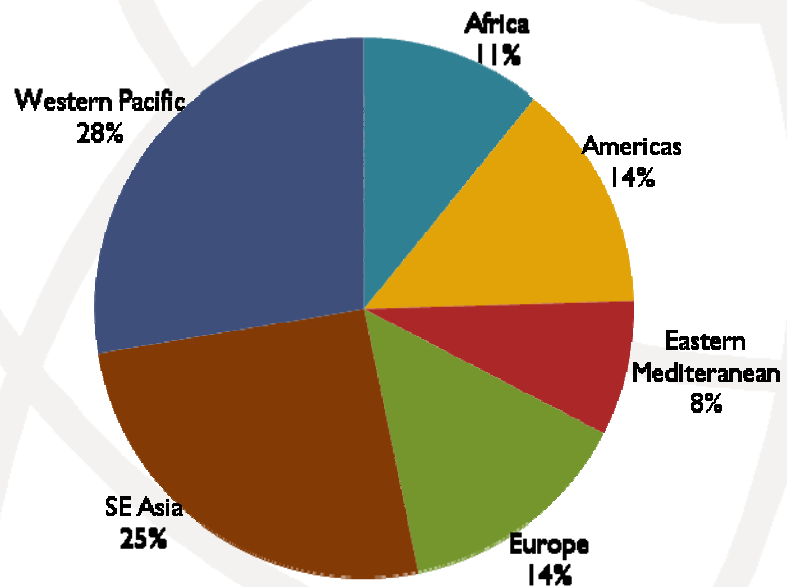


Mar del Plata, Argentina, 31 Aug – 1 Sep 2009

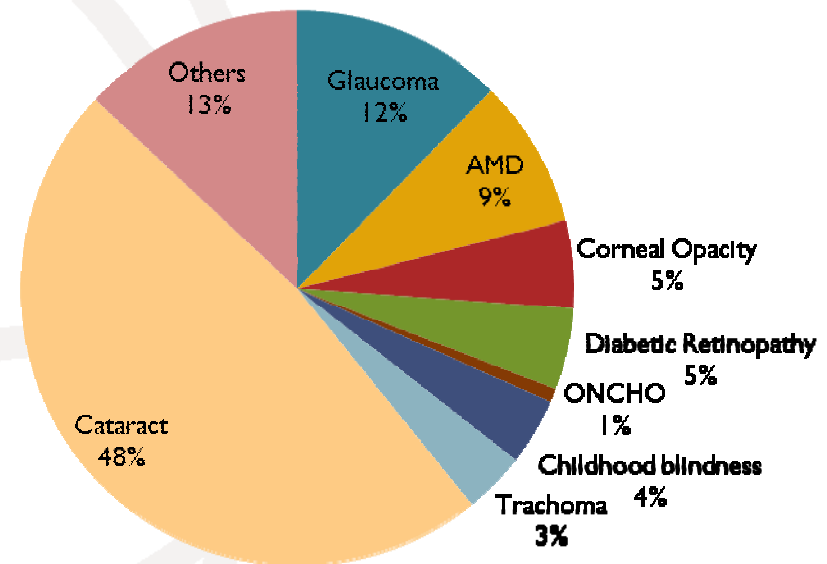
Visually Impaired Numbers

- 161 million visually impaired, 124 million with low vision

by Region



by Cause



Figures courtesy of World Health Organization: <http://www.who.int/mediacentre/factsheets/fs282/en/>



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The problem

- Low sight = can't see details
- Evolution of phone to smaller units
 - ➔ Physical screen size got smaller (but now is getting larger)
 - ➔ Display capabilities increased
 - ➔ Use of complex GUIs
- Personalization of phone
 - ➔ Themes
 - ➔ Good start, but not enough control
 - ➔ Large fonts, high contrast colours

Existing Mobile Solutions for Visually Impaired

- Limited functionality in handset
- No ability to change contrast in colours – only magnify (see far right)



iCanSee

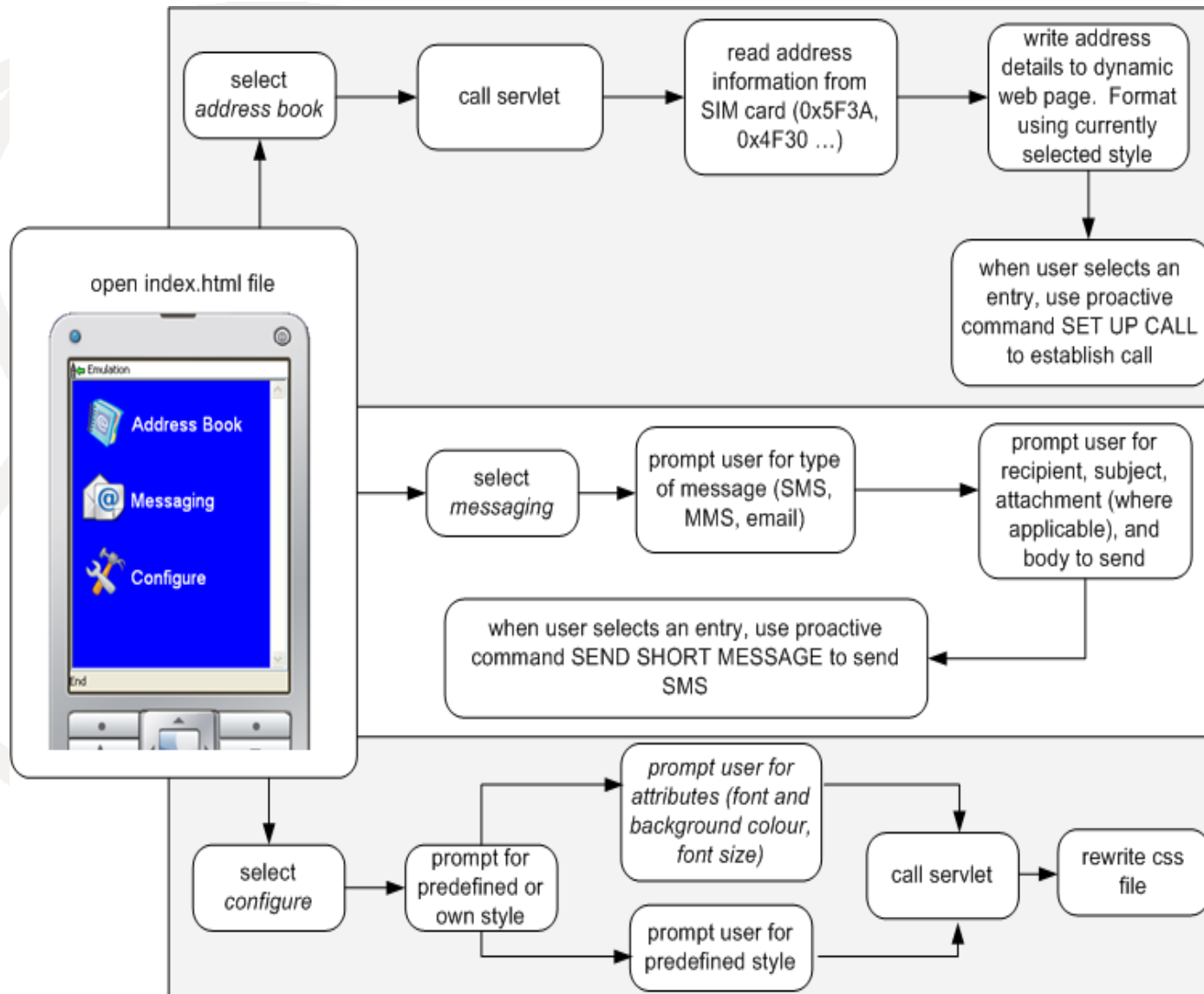
- Software solution
 - ➔ Portable
 - ➔ Works on all devices
- Limitations?
 - ➔ Software solution
 - ➔ No change to physical handset



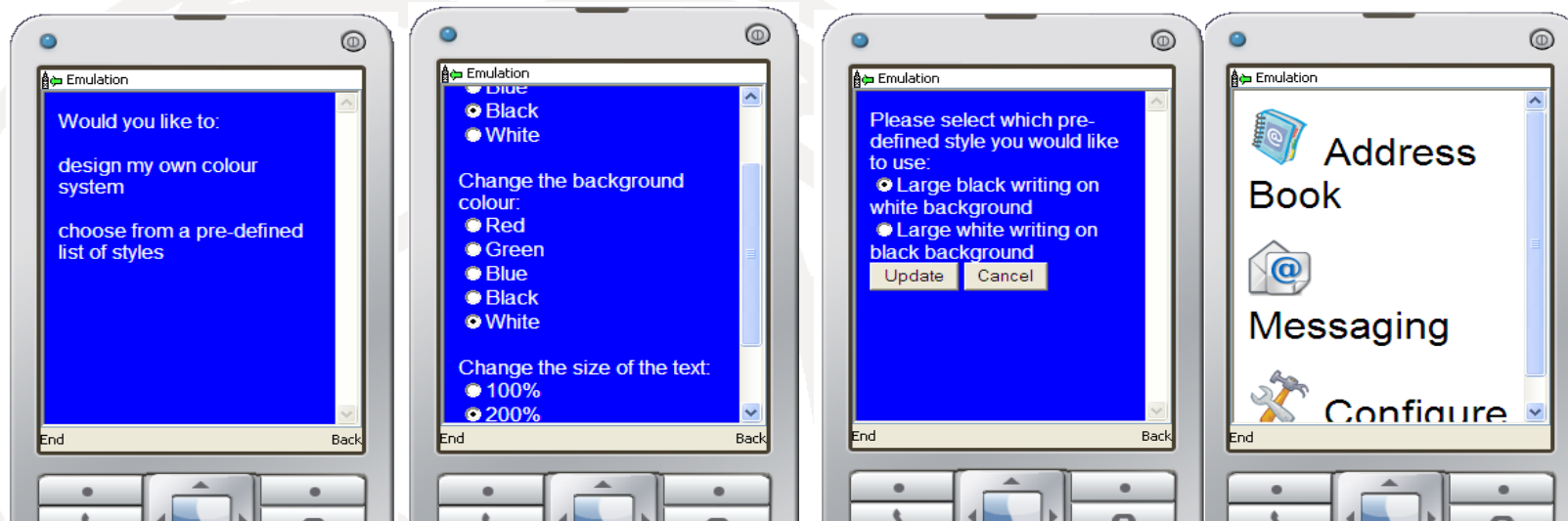
iCanSee

- Target four primary text-based communication tools
 - ➔ Address Book, SMS, MMS, and email
- Smart Card Web Server
 - ➔ Static page – index
 - ➔ Dynamic pages – address book, CSS editor, messaging facilities
- Built on existing technology
 - ➔ HTML, CSS

iCanSee Implementation

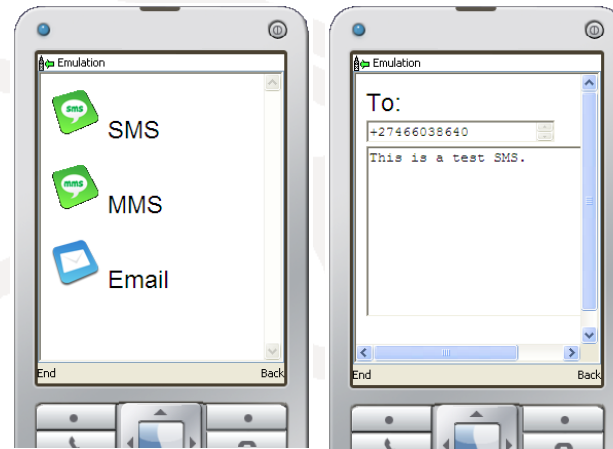


CSS Editor



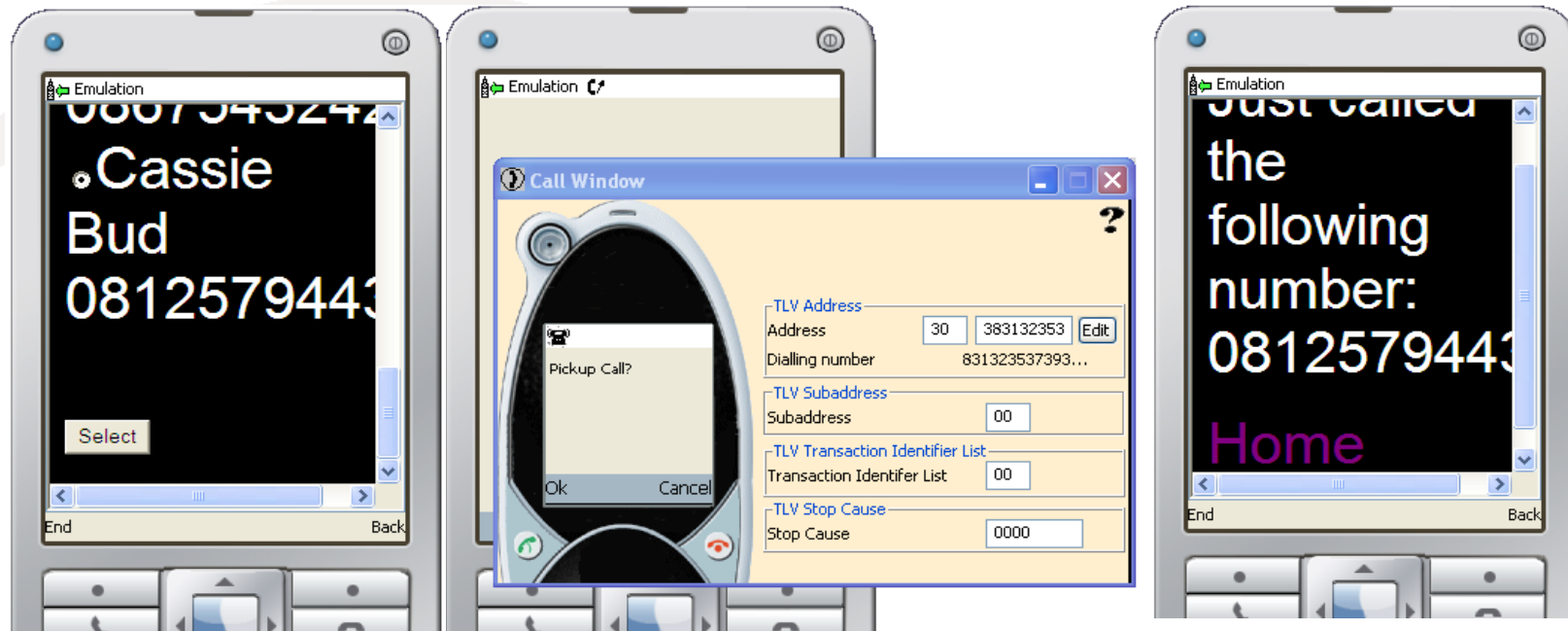
- design own style
- select from a list of existing styles

Messaging – SMS, MMS, Email



- select mail type
- either enter phone number or choose from address book (see previous slide)
- enter message and send

Address Book



- read from address book on SIM card
- reformat using currently selected style
- allow user to select name and call number

Feasibility

- Technological perspective
 - ➔ Very feasible and very easily realisable
- Economic perspective
 - ➔ Untapped market of at least 124 million people
- Social perspective
 - ➔ Universal access

Conclusion

- Motivated for need for creating solutions for visually impaired community
- Demonstrated a SIM based application to support use of mobile phone
- Any questions?