What does this signify to you?





What would the thumbs up mean to this guy?





Another example: which one would be better for Bangalore, India?

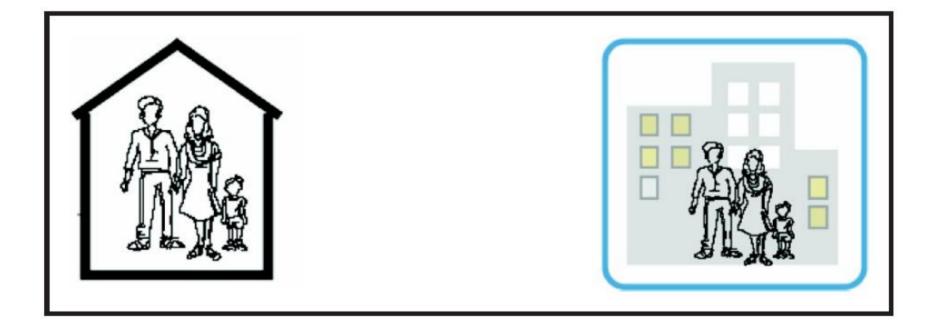




Image source: Medhi, I., A. Sagar, and K. Toyama. "Text-Free User Interfaces for Illiterate and Semiliterate Users." *Information Technologies and International Development* 4, no. 1 (2007): 37-50. **3** Courtesy of USC Annenberg School for Communication.

Lesson #1: Pay attention to religious & cultural nuances in designing GUIs



Figure 4. Ambiguity in iconic representation due to cultural biases: Our initial design indicating start and end times for a job places the start time at left (left). This is misinterpreted in Muslim culture. Adding an arrow avoids this problem (right).



Figure 5. Designs for the "residence" icon. Our initial design (left) was perceived as a hut; the final design (right) is more in line with what our subjects interpreted as an urban residence.



Image source: Medhi, I., A. Sagar, and K. Toyama. "Text-Free User Interfaces for Illiterate and Semiliterate Users." *Information Technologies and International Development* 4, no. 1 (2007): 37-50. **4** Courtesy of USC Annenberg School for Communication.

Text-Free User Interfaces for Illiterate and Semiliterate Users

Indrani Medhi, Aman Sagar and Kentaro Toyama



Literacy Rates in Africa 2005

Overall: Less than 60%

Burkina Faso	28.5%
Chad	53.6%
Gambia	42.4%
Guinea	41.1%
Niger	18.7%

Rates are even lower in women: 14% in Somalia.

Source: Encarta



Basics for Semi-literate/illiterate audiences

- Use voice feedback if possible
- Minimal use of text (but numbers are ok!)
- Active visual response on mouse-over
- Landmarks for geographic navigation
- Make help readily available

Let's get into more insightful analysis.



Lesson #2: Semi-abstracted or photo realistic graphics are more effective than iconic

Collection of Web-style icons removed due to copyright restrictions.

Collection of photos of common technology objects removed due to copyright restrictions.



Lesson #2: Simple for you may not be simple enough

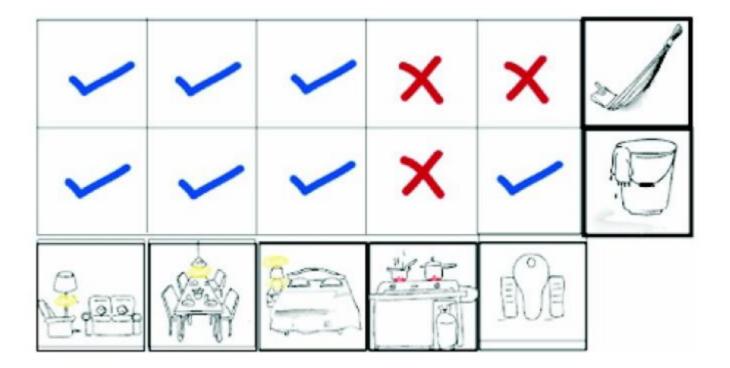




Image source: Medhi, I., A. Sagar, and K. Toyama. "Text-Free User Interfaces for Illiterate and Semiliterate Users." *Information Technologies and International Development* 4, no. 1 (2007): 37-50. **9** Courtesy of USC Annenberg School for Communication.

This graphic was more easily understood





Image source: Medhi, I., A. Sagar, and K. Toyama. "Text-Free User Interfaces for Illiterate and Semiliterate Users." *Information Technologies and International Development* 4, no. 1 (2007): 37-50. **10** Courtesy of USC Annenberg School for Communication.

Lesson #3: GUIs are a superior option if possible

Authors tested theories in Bangalore experiments

Job Search Task

Tested text interface and text-free graphical interface with help – the winner: text free graphical with help

Finding Location on a map task

Text-free versus text-based - text-free was far more successful.



Lesson #4: Test interfaces with your end user and listen to your customers

Photo of five people of different races removed due to copyright restrictions.



That's it, thanks!





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