Culture and human-computer interaction: Culture's influence on interaction

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This document is part of a collection of presentations with a focus on electronic publishing. For full details of this and the rest of the collection see the cover sheet at: http://ucloer.eprints-hosting.org/id/eprint/34

Version 1.0

Outline

- Cultural models
- Cultural models applied to HCI
- Real world examples

A question for you

Do cultures differ?

- How?

- What have you noticed?

Cultural models

Culture

▪Influences learning style, attitudes to change, memory, aesthetic tastes… (McLoughlin, 1999).

▪Psychologist have found it influence judgment, perception, decision making (Middleton, 2002; Oishi, Diener, Lucas & Eunkook, 1999; Mann, Radford & Kanagawa, 1985; Nisbette, 2003).

▪A set of learned and shared knowledge that makes one society different from another (Altarriba, 1993).

▪Can be expressed through symbols, heroes, rituals

▪Many attempts to measure and classify it have been made

Geert Hofstede

Culture: "collective programming of the mind" which makes one group unique from another. Includes patterns of thinking, feeling and potential activity. It is a collective phenomenon, consisting of unwritten rules of social interaction.

Hofstede's Cultural Dimensions

- Power Distance

- Uncertainty Avoidance

- Individualism vs. Collectivism

- Masculinity vs. Femininity

- Long vs. Short-term Orientation

http://www.geert-hofstede.com/

Fons Trompenaar's Dimensions

Culture: a common way to communicate between people. A system of shared meaning, shared beliefs and a shared, meaningful context. It is also a way in which "a group of people solves problems and reconciles dilemmas."

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Similarities in the models

- Individualism / collectivsm and Individualism / Communitarianism
- Power distance and Achievement vs. Ascription
- Time orientation and Sequential vs. Synchronic

Models applied to HCI

Hofstede in HCI

- Aaron Marcus and Emily Gould

- Evaluated existing websites using Hofstede's model and found design difference.

- Used Hofstede's model to develop website design guidelines

Marcus's design suggestions

Design for a High-UA culture may include:

- Simple clear design, limited choices.

- Attempts to reveal or forecast the results or implications of actions before users act.

- Navigation schemes intended to prevent users from becoming lost.

- Mental models and help systems that focus on reducing "user errors."

- Redundant cues color, typography, sound, etc. to reduce ambiguity.

Marcus's design suggestions

Low UA cultures would emphasize the reverse:

- Maximum content and choice.
- Acceptance even encouragement of wandering and risk, with a stigma on "over-protection."
- Less control of navigation; for example, links might open new windows leading away from the original location.
- Mental models and help systems might focus on understanding underlying concepts rather than narrow tasks.
- Coding of colour, typography, and sound to maximize information multiple links without redundant cueing

Criticism of Hofstede

- Baskerville, 2003: No link between culture and nation

- Spector, Cooper & Sparks (2001): Tried but could not duplicate Hofstede's results

- Kruger & Roodt, 2003: Attempted to use it in correlational research and failed

- Oshlyansky, Cairns, Thimbleby. (2006): Attempted to use in correlational research and to duplicate results and failed
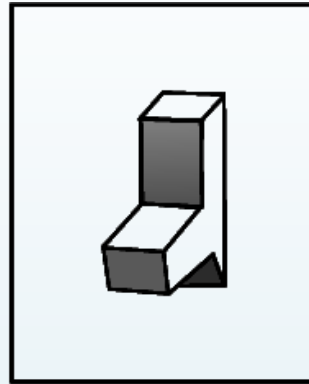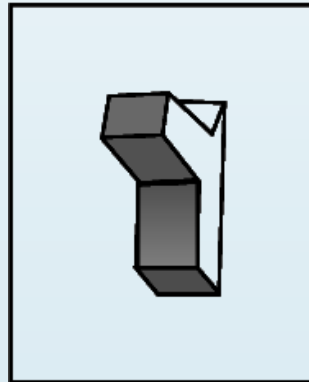
Real world examples

Examples

- Interactions
- Expectations
- Words
- Interpretations

Interaction: the humble light switch
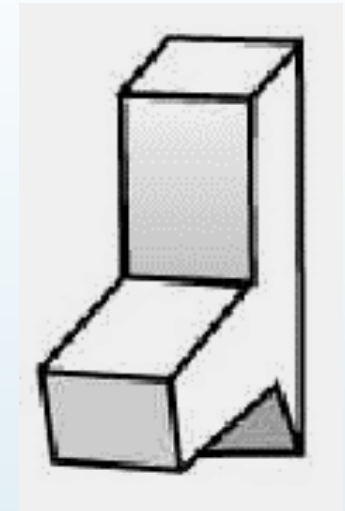
1

2

Results – down position

	ON	**OFF**	Total Subjects
UK	28	12	40
US	2	43	45

Results – up position

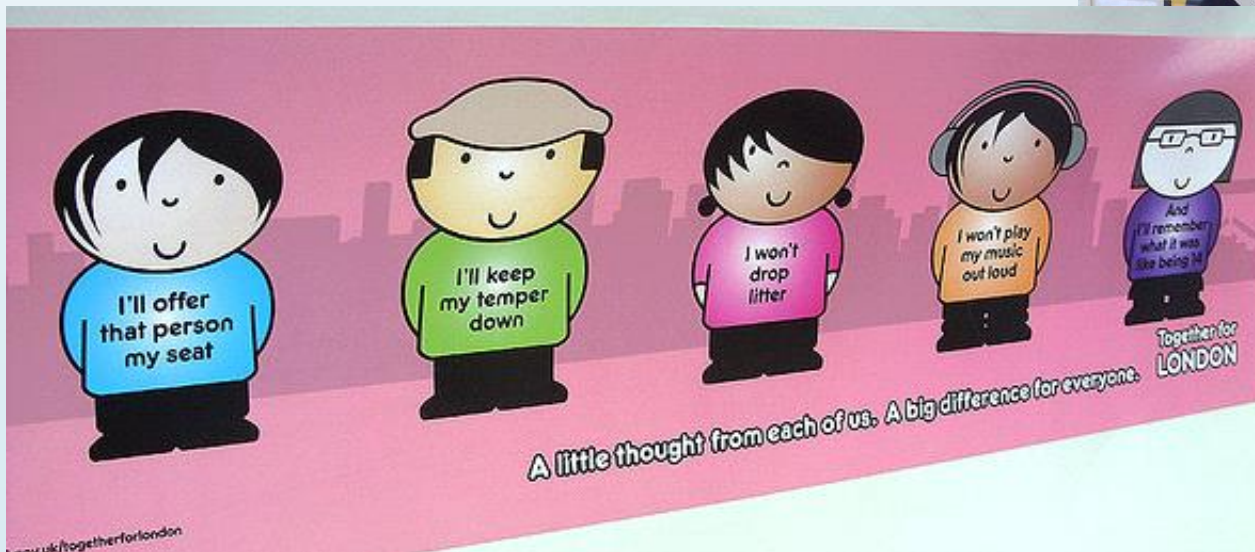|	**ON**	**OFF**	Total Subjects
UK	12	28	40
US	43	2	45
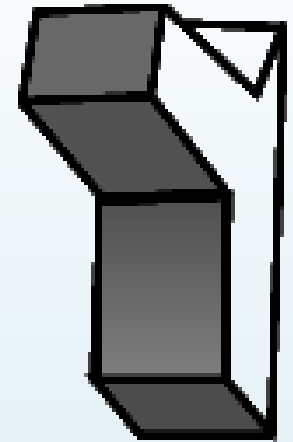
Expectations

Expectations

Words

- Translations aren't always accurate:

Fun= веселье, забава, шутка

Веселье = fun, joy, merriment, gaiety, spree, mirth, gladness, rejoicing, hilarity, amusement

Забава = fun ,amusement, game, play, toy, sport, lark, trick

Шутка = joke, jest, prank, fun, trick, pleasantry, gag, laugh

Words

☐ Two nations separated by a common language

Boot = Trunk

Holiday = Vacation

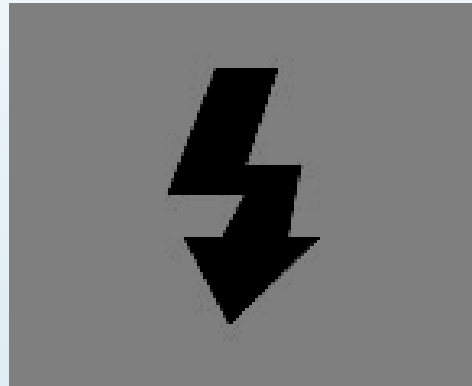Trousers = Pants

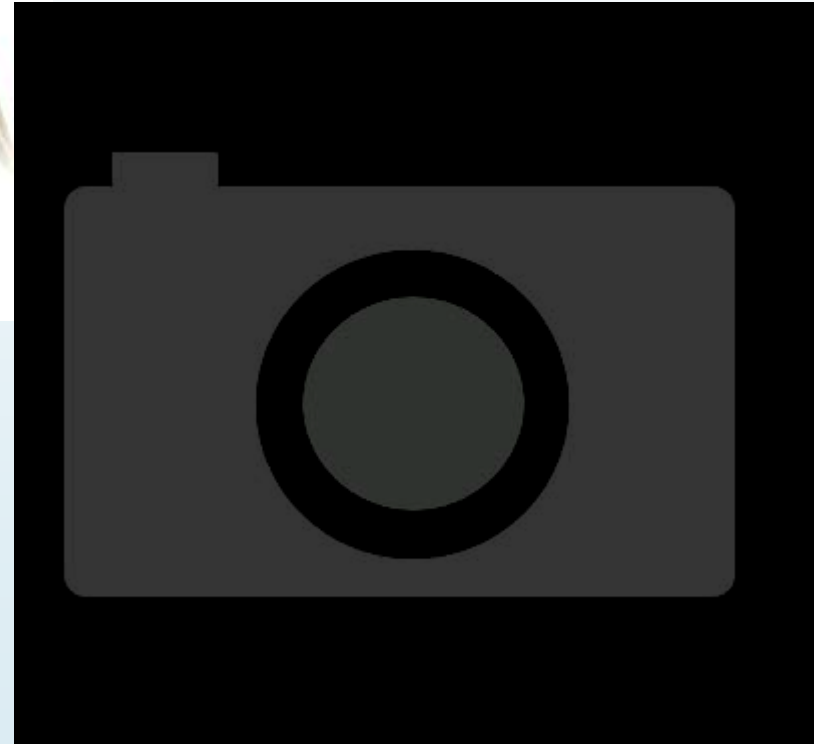Jumper = Sweater

Mobile = Cell

Football = Soccer

Interpretations

A picture is worth a 1000 words

Or not...

A little Context

What lots of people thought

Discussion

Well maybe we can…

What do you think?

- Your ideas?

- Thoughts on doing cross cultural design?

- Questions?

Thank you!