

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://humbox.ac.uk/3078/>

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).
- Psychologists have found it influences 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 / collectivism and Individualism / Communitarianism
- Power distance and Achievement vs. Ascription
- Time orientation and Sequential vs. Synchronic

Models applied to HC

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

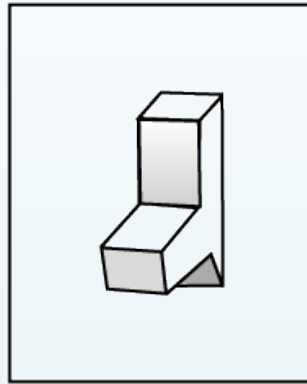
Real world examples

Examples

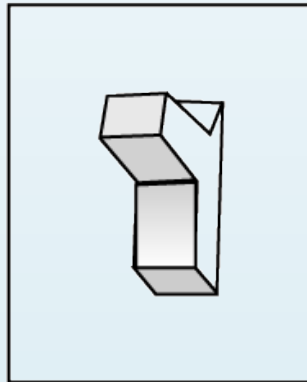
- Interactions
- Expectations
- Words
- Interpretations

Interaction: the humble light switch

1

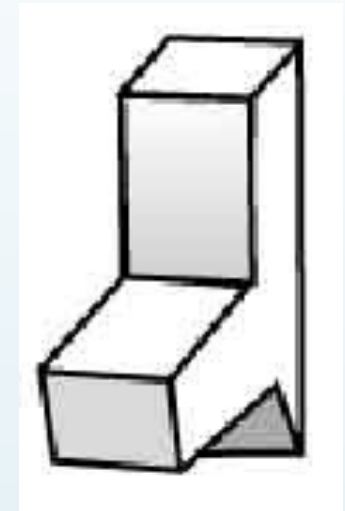


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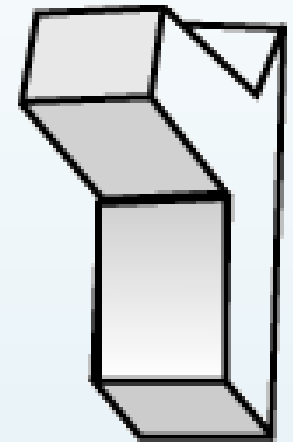
Results – down position

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

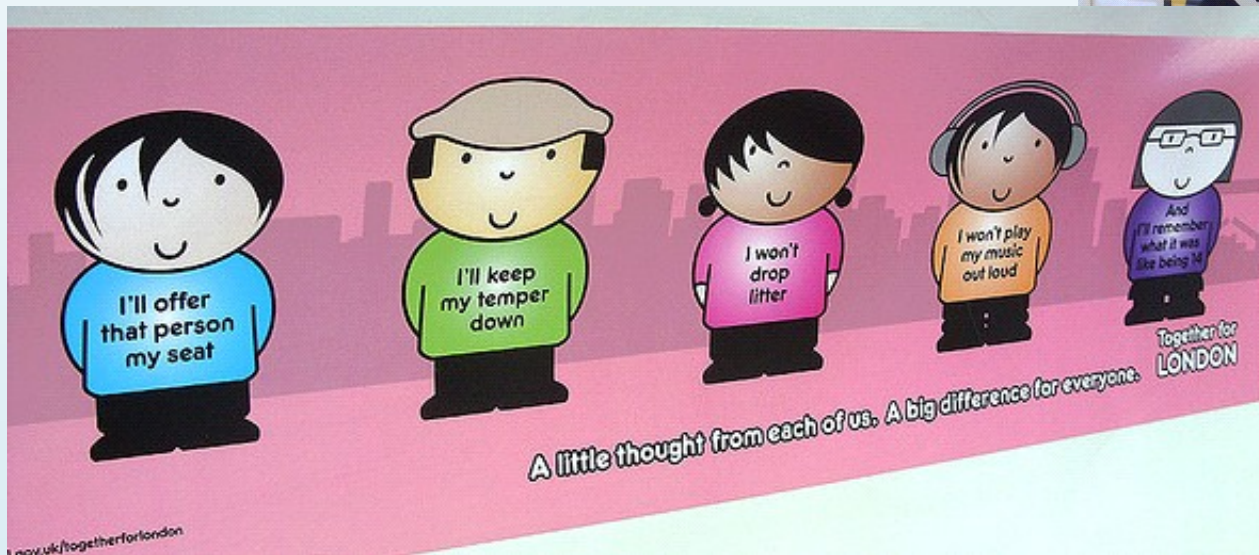


Results – up position

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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

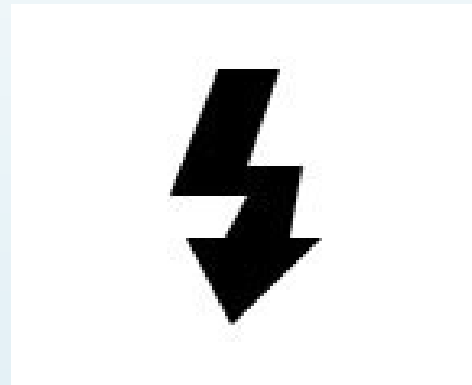
Mobile = Cell

Football = Soccer

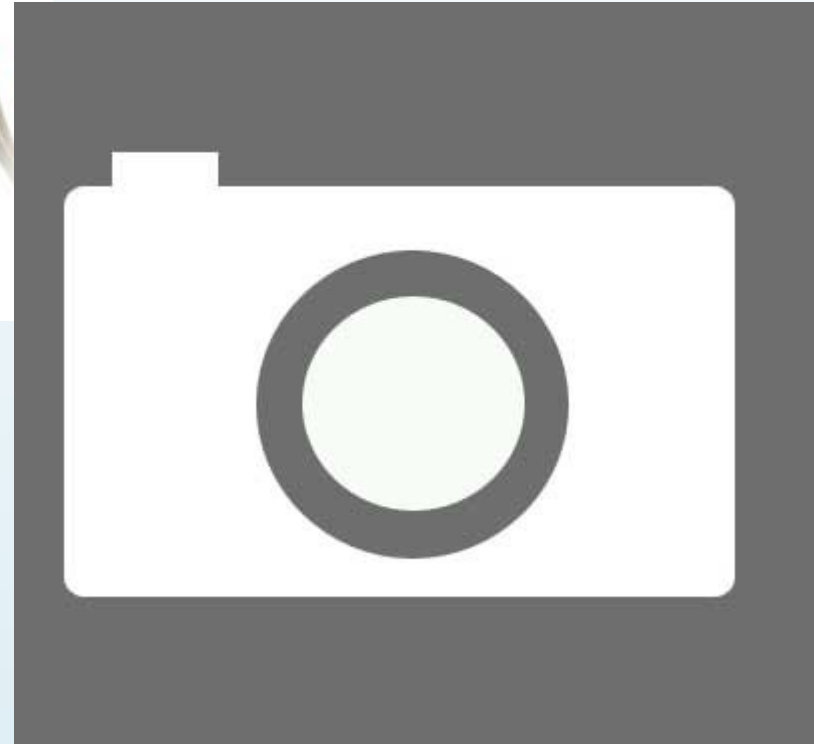
Interpretations

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?

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Thank you!