What is Cross-Cultural Design?

Cross-Cultural UX Design Seminar
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Tanja Walsh
tanja.walsh@tut.fi
Liinu Helkiö
liinu.helkio@tut.fi
Topics

1. Going Global
2. Cross-Cultural Design in Product Development
Going Global
What is cross-cultural design?

- Companies are expanding their customer basis across national and cultural boundaries

- Cross-cultural design is designing technology for different cultures, languages, and economic standings
  - Ensuring usability and user experience across cultural boundaries
Why is cross-cultural design important?

- Technology is always contextualized in a culture and users interpret products based on their cultural backgrounds and values
  - Chinese peasants use washing machine to clean potatoes
  - Cell phones could become means to learn prayer times for Malaysian Muslims
  - Kellogg’s in India
  - "The washing machine that ate my sari"
Example: American cars in Japan

- The size of the cars were not practical
- The steering wheel was on the wrong side
- Seat sizes and adjustments did not fit the average Japanese
- Engines weren’t designed to run on Japan’s lower octane fuel and performed poorly
- R, D, and L on the shift had no meaning for Japanese
- Repairs required hard-to-find English-based tools
Approaches to cross-cultural design

• Using existing cultural theories

• User-centered design in the specific culture and countries
  - User studies with local people
  - Usability tests
From utility to user experience

Virpi Roto/
User Experience vs. Usability

• Usability
  - **Task-oriented**: efficiency, effectiveness, satisfaction
  - Mostly **objective**: e.g. timing, task completion
  - **Prevention of obstacles** and errors

• User experience
  - **Holistic**: user / product / usage situation
  - **Subjective**: how people experience products
  - **Positive**: positive outcomes; i.e. positive emotions
  - **Functional** (pragmatic) & **Emotional** (experiential, hedonic)
Cross-Cultural Design in Product Development
Globalization Process

- **Globalization**
  - Transformation of business and processes to support customers around the world, in whatever language, country, or culture they require. The technical processes of internationalization and localization make globalization possible.

- **Internationalization (i18n)**
  - Ensuring that products are designed and developed free of any culture-specific attributes, so they can be easily localized.

- **Localization (L10N)**
  - Making the necessary design changes so that products are culturally and technically suited for the target culture.
Example: UI Localization and UX

1. **UTILITY**
   - Ability to *process and display* the user's:
     - Native language, character sets, notations and formats.
     - Making sure *concrete* localizable items are somehow separated in order to localize them.

2. **USABILITY**
   - Ability to produce UI and user information that is *understandable and usable* in the user’s native language.
   - The quality of localization and terminology.
   - Highlighting the meaning of context.
   - Methods of usability engineering needed.

3. **USER EXPERIENCE**
   - Ability to produce a system that *accommodates user’s cultural characteristics and hidden meanings.*
   - Abstract cultural meanings.
Product Development

Requirements
- Market area studies
- User studies/user needs
- UX concepting
- Languages

User Feedback

Design
- Product Specification
- UI prototyping
- Usability/UX evaluation

Execution
- Executing design according to product specifications
- Usability/UX iterations
- L10N and translation
  -- i18n testing

Verification & Correction
- UX/usability testing & error fixes
- L10N testing (bugs: Linguistic, functional, UX) & error fixes

Product launch
Culture & User Experience

- User experience attributes are culturally bound
- Culture influences human-product interaction
- How to study culture? How to gather useful data, compare it and apply it in a sensible way to your product’s design and implementation?
- There is no simple agreement on a specific definition of culture
Cultural Metamodels

The Iceberg Model

Surface
Unspoken Rules
Unconscious Rules

The Pyramid Model

Personality
Culture
Human Nature
Culture: Objective & Subjective

- **Objective** (social and material)
  - Society’s political and economic system
  - Customs
  - Art, architecture, and institutions

- **Subjective** (psychological)
  - Society’s values, expectations, theories of action, and patterns of thinking
Culture: Things to investigate

1. Cultural metamodels (ie. Iceberg, Pyramid):
   - Help to understand different layers of culture.

2. International Variables:
   - Objective (ie. Writing system) or subjective (ie. Humor)

3. Cultural model for your own needs:
   - Helps to design better for different cultures.
   - Can be used for identifying global information for i18n, cultural bias, metaphors, assessing the degree of localization, avoiding cultural mistakes that can be offending or misleading, evaluating the quality of an international product.

• Cultural Dimensions, eg. Geert Hofstede
Example of using existing theories- Hofstede’s five cultural dimensions

- Power distance
- Individualism vs. collectivism
- Masculinity vs. feminity
- Uncertainty avoidance
- Long vs. short-term time orientation
High power distance; Malaysia

Design tips
- Focus on expertise, leaders and authority
- Importance of certifications, awards & logos
- Social roles to organize information
- Structured, guided access to information
Low Power Distance; Netherlands

Design tips
- Youthfulness
- Less structured access to information fine
- Emphasize people in images
High uncertainty avoidance; Belgium

Design tips
- Reveal results of actions
- Use task animations to reduce user error
- Encode meaning through multiple cues
- Keep it simple
Low uncertainty avoidance; UK

- Less protection from failure; complexity and risks more valued
- Less controlled navigation; links may open windows
Pros and cons of the approaches

- Using existing cultural dimensions (e.g. uncertainty avoidance)
  - Reinforce stereotypical views?
  - Cultures are continuously developing
  - Quick and dirty, cost-efficient

- User-centered design in the specific culture and countries
  - On site
    - Provides the most reliable information
    - Expensive and demanding time
  - Remotely
    - Cost-efficient, but not many methods exist yet
    - E.g. questionnaires, diary studies and remote usability tests
Conclusions

- Cross-cultural design is ensuring usability and user experience across cultural boundaries.

- Cross-cultural design requires understanding of cultural differences and application of user-centered design methods in target cultures.
More information

Thank you!