

## Lesson 11

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# Interaction Design (CM3055)

## What is Cross-cultural design?

- Designing technology for different cultures, languages, and economic standings
  - Ensuring usability and user experience across cultural boundaries
- Companies are expanding their customer basis across national and cultural boundaries



**Should we rely on intuition or  
personal experience when  
designing multiple sites for culturally  
different user groups?**

**NO!**

# Why is Cross Cultural Design important?

Technology is always contextualized in a culture and users interpret products based on their cultural backgrounds and values

- Kellogg's corn flakes in India
- “The washing machine that ate my sari”
- American cars in Japan



# Approaches to Cross Cultural Design

- focusing on, say, website characteristics which are sensitive to demographic differences within the user base
- determining to what extent international or universal approaches might be better than localised, customised designs.
- Using existing cultural theories
- User-centered design in the specific culture and countries
  - User studies with local people
  - Usability tests





**Utility**



**Usability**



**Experiences**

**Extra Reading**

UX Case Study: <https://usabilitygeek.com/ux-case-study-soundcloud-mobile-app/>

# Cross-Cultural Design in Product Development



**If the user-interface design process acknowledges user diversity, practical questions arise:**

- How can the differences between cultures be understood?
- What impact might these cultures have on the understanding and use of web-based communication of content and tools?
- What are the needs, wishes, preferences, and expectations of different cultures?



# Dr Geert Hofstede's Six Dimensions of Culture

- Cultural dimensions model published - end of the 1970s
- internationally recognized standard for understanding cultural differences
- studied people who worked for IBM in more than 50 countries

## Six Dimensions

1. Power Distance Index (high versus low)
2. Individualism Versus Collectivism
3. Masculinity Versus Femininity
4. Uncertainty Avoidance Index (high versus low)
5. Pragmatic Versus Normative
6. Indulgence Versus Restraint



**Original four** -distinguish one culture from another

**Latest Dimensions** with Drs Michael H. Bond and Michael Minkov

# **Geert Hofstede on the importance of an international perspective 2015**



## **Geert Hofstede on Culture**

<https://youtu.be/wdh40kgY YOY>



# **Hofstede's Model of National Cultures**

# **What Is The Difference Between a High-Context and Low-Context Culture?**



## **Me or We?**

### **Cultural Difference between East and West**

# Six Dimensions of Culture

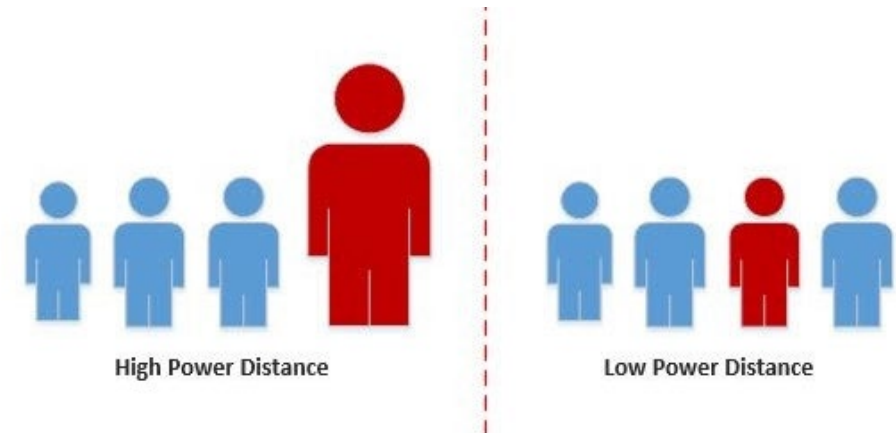
## 1. Power Distance Index (high versus low)

degree of inequality that exists – and is accepted – between people with and without power

**High PDI score** - a society accepts an unequal, hierarchical distribution of power, and that people understand "their place" in the system.

**Low PDI score** - power is shared and is widely dispersed, and that society members do not accept situations where power is distributed unequally.

**Application:** In a high PDI country, such as Malaysia (100), team members will not initiate any action, and they like to be guided and directed to complete a task. If a manager doesn't take charge, they may think that the task isn't important.



## 1. Power Distance Index (high versus low)

PDI	Characteristics	Tips
High PDI	<ul style="list-style-type: none"> <li>Centralized organizations</li> </ul>	<ul style="list-style-type: none"> <li>Acknowledge a leader's status. As an outsider, you may try to circumvent his or her power, but don't push back explicitly.</li> </ul>
	<ul style="list-style-type: none"> <li>More complex hierarchies</li> </ul>	<ul style="list-style-type: none"> <li>Be aware that you may need to go to the top for answers.</li> </ul>
	<ul style="list-style-type: none"> <li>Large gaps in compensation, authority and respect</li> </ul>	
Low PDI	<ul style="list-style-type: none"> <li>Flatter organizations</li> </ul>	<ul style="list-style-type: none"> <li>Delegate as much as possible.</li> </ul>
	<ul style="list-style-type: none"> <li>Supervisors and employees are considered almost as equals</li> </ul>	<ul style="list-style-type: none"> <li>Ideally, involve all those in decision making who will be directly affected by the decision.</li> </ul>



## 1. Power Distance Index (high versus low)

### **Design tips (High PDI)**

- Focus on expertise, leaders and authority
- Importance of certifications, awards & logos
- Social roles to organize information
- Structured, guided access to information

### **Design tips (Low PDI)**

- Youthfulness
- Less structured access to information fine
- Emphasize people in images

# Six Dimensions of Culture

## 2. Individualism Versus Collectivism (IDV)

strength of the ties that people have to others within their community.

**High IDV score** - weak interpersonal connection among those who are not part of a core "family." People take less responsibility for others' actions and outcomes.

**Collectivist society** - people are supposed to be loyal to the group to which they belong, and, in exchange, the group will defend their interests. The group itself is normally larger, and people take responsibility for one another's wellbeing.



**Application:** Central American countries **Panama** and **Guatemala** have very low IDV scores (11 and six, respectively). In these countries, as an example, a marketing campaign that emphasizes benefits to the community would likely be understood and well received, as long as the people addressed feel part of the same group.

## 2. Individualism Versus Collectivism (IDV)

IDV	Characteristics	Tips
<b>High IDV</b>	<ul style="list-style-type: none"> <li>• High value placed on people's time and their need for privacy and freedom.</li> <li>• An enjoyment of challenges, and an expectation of individual rewards for hard work.</li> <li>• Respect for privacy.</li> </ul>	<ul style="list-style-type: none"> <li>• Acknowledge individual accomplishments.</li> <li>• Don't mix work life with social life too much.</li> <li>• Encourage debate and expression of people's own ideas.</li> </ul>
<b>Low IDV</b>	<ul style="list-style-type: none"> <li>• Emphasis on building skills and becoming master of something.</li> <li>• People work for intrinsic rewards.</li> <li>• Maintaining harmony among group members overrides other moral issues.</li> </ul>	<ul style="list-style-type: none"> <li>• Wisdom is important.</li> <li>• Suppress feelings and emotions that may endanger harmony.</li> <li>• Avoid giving negative feedback in public.</li> <li>• Saying "No" can cause loss of face, unless it's intended to be polite. For example, declining an invitation several times is expected.</li> </ul>

# Six Dimensions of Culture

## 3. Masculinity Versus Femininity (MAS)

distribution of roles between men and women. In masculine societies, the roles of men and women overlap less, and men are expected to behave assertively. Demonstrating your success, and being strong and fast, are seen as positive characteristics.

**Feminine societies** - a great deal of overlap between male and female roles, and modesty is perceived as a virtue. Greater importance is placed on good relationships with your direct supervisors, or working with people who cooperate well with one another.

The gap between men's and women's values is largest in Japan and Austria, (MAS scores of 95 and 79 respectively). In both countries, men score highly for exhibiting "tough," masculine values and behaviors, but, in fact, women also score relatively highly for having masculine values, though on average lower than men.

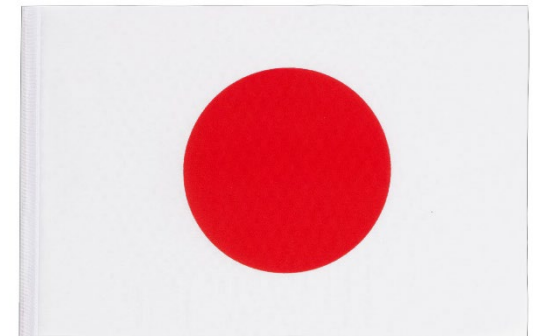


### 3. Masculinity Versus Femininity (MAS)

**Application:** As we've highlighted, Japan has the highest MAS score of 95, whereas **Sweden** has the lowest measured value of five. Therefore, if you open an office in **Japan**, you should recognize you are operating in a hierarchical, deferential and traditionally patriarchal society. Long hours are the norm, and this, in turn, can make it harder for female team members to gain advancement, due to family commitments.

At the same time, Japan is a culture where all children (male and female) learn the value of competition and winning as part of a team from a young age. Therefore, female team members are just as likely to display these notionally masculine traits as their male colleagues.

By comparison, **Sweden** is a very feminine society, according to Hofstede's model. Here, people focus on managing through discussion, consensus, compromise, and negotiation.



### 3. Masculinity Versus Femininity (MAS)

MAS	Characteristics	Tips
<b>High MAS</b>	<ul style="list-style-type: none"> <li>• Strong egos – feelings of pride and importance are attributed to status.</li> <li>• Money and achievement are important.</li> </ul>	<ul style="list-style-type: none"> <li>• Be aware of the possibility of differentiated gender roles.</li> <li>• A long-hours culture may be the norm, so recognize its opportunities and risks.</li> <li>• People are motivated by precise targets, and by being able to show that they achieved them either as a group or as individuals.</li> </ul>
<b>Low MAS</b>	<ul style="list-style-type: none"> <li>• Relationship oriented/ consensual.</li> <li>• More focus on quality of life.</li> </ul>	<ul style="list-style-type: none"> <li>• Success is more likely to be achieved through negotiation, collaboration and input from all levels.</li> <li>• Avoid an "old boys' club" mentality, although this may still exist.</li> <li>• Workplace flexibility and work-life balance may be important, both in terms of job design, organizational environment and culture, and the way that performance management can be best realized</li> </ul>

# Six Dimensions of Culture

## 4. Uncertainty Avoidance Index (UAI)

describes how well people can cope with anxiety.

**High for Uncertainty Avoidance** - people attempt to make life as predictable and controllable as possible. If they find that they can't control their own lives, they may be tempted to stop trying. These people may refer to "mañana," or put their fate "in the hands of God."

**Low UAI-scoring** countries are more relaxed, open or inclusive. Bear in mind that avoiding uncertainty is not necessarily the same as avoiding risk. Hofstede argues that you may find people in high-scoring countries who are prepared to engage in risky behaviour, precisely because it reduces ambiguities, or in order to avoid failure.

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## 4. Uncertainty Avoidance Index (UAI)

**Application:** In Hofstede's model, **Greece** tops the UAI scale with 100, while **Singapore** scores the lowest with eight.

Therefore, during a meeting in Greece, you might be keen to generate discussion, because you recognize that there's a cultural tendency for team members to make the safest, most conservative decisions, despite any emotional outbursts.

Your aim is to encourage them to become more open to different ideas and approaches, but it may be helpful to provide a relatively limited, structured set of options or solutions.





#### 4. Uncertainty Avoidance Index (UAI)

UAI	Characteristics	Tips
<b>High UAI</b>	<ul style="list-style-type: none"> <li>• Conservative, rigid and structured, unless the danger of failure requires a more flexible attitude.</li> <li>• Many societal conventions.</li> <li>• People are expressive, and are allowed to show anger or emotions, if necessary.</li> <li>• A high energy society, if people feel that they are in control of their life instead of feeling overwhelmed by life's vagaries.</li> </ul>	<ul style="list-style-type: none"> <li>• Be clear and concise about expectations and goals, and set clearly defined parameters. But encourage creative thinking and dialogue where you can.</li> <li>• Recognize that there may be unspoken "rules" or cultural expectations you need to learn.</li> <li>• Recognize that emotion, anger and vigorous hand gestures may simply be part of the conversation.</li> </ul>
<b>Low UAI</b>	<ul style="list-style-type: none"> <li>• Openness to change or innovation, and generally inclusive.</li> <li>• More inclined to open-ended learning or decision making.</li> <li>• Less sense of urgency.</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure that people remain focused, but don't create too much structure.</li> <li>• Titles are less important, so avoid "showing off" your knowledge or experience. Respect is given to those who can cope under all circumstances.</li> </ul>

# Six Dimensions of Culture

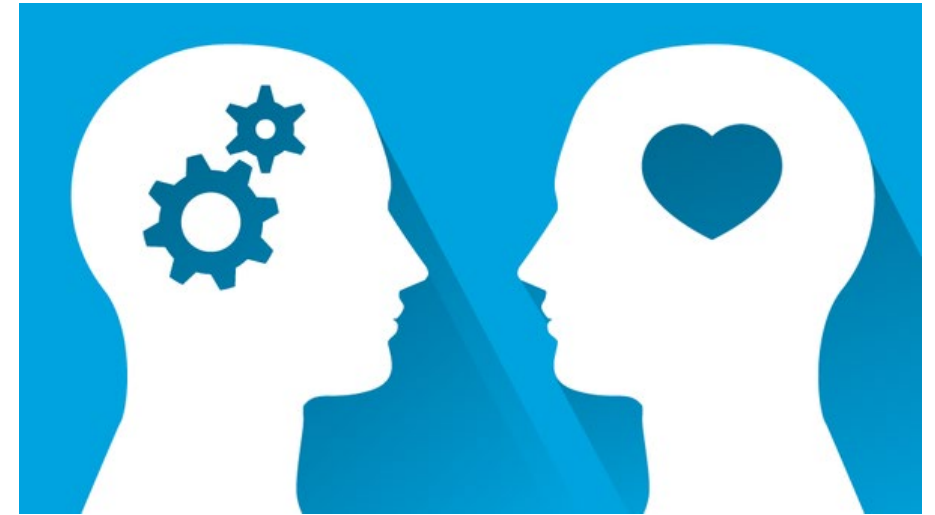
## 5. Pragmatic Versus Normative (PRA)

- known as Long-Term Orientation
- degree to which people need to explain the inexplicable, and is strongly related to religiosity and nationalism.

**High-scoring countries for PRA** - pragmatic, modest, long-term oriented, and more thrifty.

**Low-scoring countries** - people tend to be religious and nationalistic. Self-enhancement is also important here, along with a person's desire to please their parents.

**Application:** The U.S. has a normative score. This is reflected in the importance of short-term gains and quick results (profit and loss statements are quarterly, for example). It is also reflected in strong normative positions politically and socially.



## 5. Pragmatic Versus Normative (PRA)

PRA	Characteristics	Tips
<b>Pragmatic</b>	<ul style="list-style-type: none"><li>• People often wonder how to know what is true. For example, questions like "What?" and "How?" are asked more than "Why?"</li><li>• Thrift and education are seen as positive values.</li><li>• Modesty.</li><li>• Virtues and obligations are emphasized.</li></ul>	<ul style="list-style-type: none"><li>• Behave in a modest way.</li><li>• Avoid talking too much about yourself.</li><li>• People are more willing to compromise, yet this may not always be clear to outsiders; this is certainly so in a culture that also scores high on PDI.</li></ul>
<b>Normative</b>	<ul style="list-style-type: none"><li>• People often want to know "Why?"</li><li>• Strong convictions.</li><li>• As people tend to oversell themselves, others will assess their assertions critically.</li><li>• Values and rights are emphasized.</li></ul>	<ul style="list-style-type: none"><li>• Sell yourself to be taken seriously.</li><li>• People are less willing to compromise as this would be seen as weakness.</li><li>• Flattery empowers.</li></ul>

# Six Dimensions of Culture

## 6. Indulgence Versus Restraint (IVR)

**Countries with a high IVR** - allow or encourage relatively free gratification of people's own drives and emotions, such as enjoying life and having fun.

**Low IVR score** - more emphasis on suppressing gratification and more regulation of people's conduct and behaviour, and there are stricter social norms.

**Application:** According to the model, Eastern European countries, including Russia, have a low IVR score. Hofstede argues that these countries are characterized by a restrained culture, where there is a tendency towards pessimism. People put little emphasis on leisure time and, as the title suggests, people try to restrain themselves to a high degree.



## 6. Indulgence Versus Restraint (IVR)

PDI	Characteristics	Tips
<b>High Indulgence</b>	<ul style="list-style-type: none"><li>• Optimistic.</li><li>• Importance of freedom of speech.</li><li>• Focus on personal happiness.</li></ul>	<ul style="list-style-type: none"><li>• Don't take life too seriously.</li><li>• Encourage debate and dialogue in meetings or decision making.</li><li>• Prioritize feedback, coaching and mentoring.</li><li>• Emphasize flexible working and work-life balance.</li></ul>
<b>High Restraint</b>	<ul style="list-style-type: none"><li>• Pessimistic.</li><li>• More controlled and rigid behavior.</li></ul>	<ul style="list-style-type: none"><li>• Avoid making jokes when engaged in formal sessions. Instead, be professional.</li><li>• Only express negativity about the world during informal meetings.</li></ul>

## Building blocks of cross-cultural design, problem still lies in usability requirements

*'Current design is based on psychological and social models drawn from European and American research traditions.*

*Cultural anthropologists and designers are reconsidering the applicability of psychological and social models by identifying cultural preferences and value orientations more prevalent in Asia, Latin America, the Islamic world and Africa.*

*Their theories complement, and sometimes revise, current principles, including the design of metaphors, mental models, navigation, interaction and appearance.'*

*By Aaron Marcus, a long-time advocate for cross-cultural usability*



Major problems which arise in multi-cultural design and development



**Evaluation**

Possible solutions:

- **Test with real users in the target culture** – although there is often limited access to representative users for usability testing in laboratories and there can be serious logistical problems.
- **Evaluate against cross-cultural heuristics** – although existing guidelines must be checked for cultural bias.



**situation is constantly changing**



**advances in technology**

remote user testing across cultures and  
remote geographical locations



**feasible and lower in cost**



## Growth of mobile app



strongly pushing culturally-sensitive design to become a necessary part of the whole Interaction Design process



# Globalisation and Localisation

# Globalisation (g11n)

- Worldwide production and consumption of products and includes issues at international, intercultural, and local levels
- A process for enabling different national versions of a product – making that same product fit many international markets – by creating a base design that can be adapted for different markets.



Graphic from [blogs.it.ox.ac.uk](http://blogs.it.ox.ac.uk)

# Globalisation and Localisation

## Localisation (L10N)

- Process of **adapting** a product to a particular language or culture, using 'local' interface elements to create the desired design
- Making different versions of the same product for different international markets can be cost-effective if only a small number of different countries are involved, in theory is less difficult to achieve
- Necessitate a comprehensive rethinking of logic, visual design, or presentation if the way of doing business (eg., accounting) or the accepted paradigm for learning (eg., focus on individual vs. group) in a given locale differs substantially from the originating culture





## Internationalisation (i18n)

- Refers to the geographic, political, and linguistic or typographic issues of nations/groups of nations
- Evident in shared standards endorsed by ISO or W3C
- Used as far back in 1985 at Apple and DEC.

## Features of cultural and national diversity - language and verbal style, format conventions, the use of colour, and layout and orientation

- characters, numerals, special characters, and diacritical
- capitalisation and punctuation, pluralisation, grammar and spelling
- left-to-right versus right-to-left and vertical input and reading
- names, titles and honorifics
- date and time, numeric and currency formats, weights and measures
- telephone numbers and addresses
- social security, national identification, and passport numbers
- icons, buttons, symbols
- colours and aesthetics
- etiquette, policies, tone, formality, metaphors



end