Human Computer Interaction

CULTURE vs DESIGN

By: Nguyễn Công Hoan

Reference

- DonaldNorman, **The Design of Everyday Things, MITPress, 23 Dec 2013**

- **Tutorial Teaching** of Prof. Dr. Keith Andrews, Graz University of Technology

Agenda

- Internationalization
- Localization
- Text direction
- Text translation
- Foreign Language
- Sort order
- Formatting
- Color conventions

Internationalization

- The process of making software ready for translation or adaptation into different languages and cultures

- Often called as i18n – 18 characters between 'I' and 'n' in the word "internationalization"

Localization

- The process making software to a specific language and culture
- More than just translate, find, and replace words

Text direction

Text direction

- Left-to-right
  - English, Vietnamese, French, etc.

- Right-to-left
  - Arabic, Hebrew

- To-down, left-to-right, right-to-left
  - Chinese, Korean, Japanese

- Text direction affects drawing, screen layout, editing, etc.

Text translation

- All user-visible text has to be translated, including error messages
  - Text in code
  - Text in images
  - Text in data files
- Translation results in the change of text length

Foreign Language

1. One of his family members is dead.
2. My brother's all the books have been stolen.
3. For what you are here ?
4. Tell me why did you go there ?
5. I, you and he will go together.
6. Exercise is good both for work as well as health

1. A member of his family is dead.
2. All my brother's books have been stolen
3. What are you here for?
4. Tell me why you went there.
5. He, you and I will go together.
6. Exercise is good for both work and health.

Abbreviations

Đại học Quốc gia TPHCM
(Vietnam National University - Ho Chi Minh City)
Vietnam Natl Univ Ho Chi Minh City
Natl Univ Ho Chi Minh City
Natl Univ Hochiminh City
Hochiminh City Natl Univ

Đại học Bách khoa TPHCM
(University of Technology - Ho Chi Minh City)
Hochiminh City Univ Technol
Ho Chi Minh City Univ Technol

Đại học Khoa học Tự nhiên
Univ Nat Sci
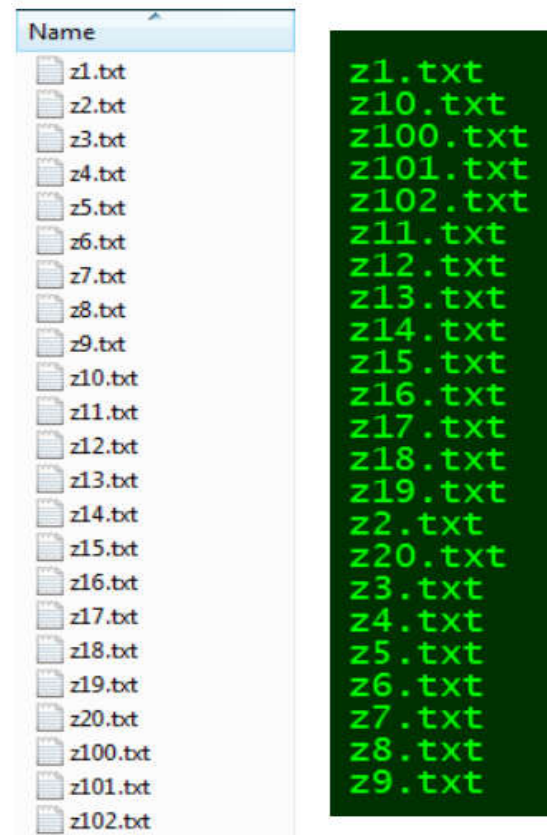Univ Nat Sci Hochiminh City

Translation Problem

Sort order

- Natural Sort Order
- Unicode is often used
- It is not always ordered according to a language
- Upper/lowercase affects order
- Java‟s String.compareTo() does not work as expected all the times

Sorting for Humans

Explorer shell sort   `Array.Sort()`

Name
z1.txt
z2.txt
z3.txt
z4.txt
z5.txt
z6.txt
z7.txt
z8.txt
z9.txt
z10.txt
z11.txt
z12.txt
z13.txt
z14.txt
z15.txt
z16.txt
z17.txt
z18.txt
z19.txt
z20.txt
z100.txt
z101.txt
z102.txt

```
z1.txt
z10.txt
z100.txt
z101.txt
z102.txt
z11.txt
z12.txt
z13.txt
z14.txt
z15.txt
z16.txt
z17.txt
z18.txt
z19.txt
z2.txt
z20.txt
z3.txt
z4.txt
z5.txt
z6.txt
z7.txt
z8.txt
z9.txt
```

Formatting

- Date
  - US: 5/10/2012 (M/D/Y)
  - VN and others: 10/5/2012 (D/M/Y)
- Time
  - US: 12:30 PM (H:M)
  - VN: 12.30 chiều
- Numbers
  - US/UK: 10,000.9 (ten thousands point nine)
  - Vietnam, Germany: 10.000,9
  - France: 10 000,9

Formats

First day of week:	Sunday
Short date:	10/22/2015
Long date:	Thursday, October 22, 2015
Short time:	7:59 PM
Long time:	7:59:51 PM

Number on Doman

TIỀN GỬI THANH TOÁN

Tên tài khoản	
Số tài khoản	
Số dư hiện tại	23,992,598 VND
Số dư khả dụng	23,992,598 VND
Hạn mức thấu chi	0 VND
Số tiền khoanh giữ	0 VND
Lãi thấu chi	0 VND
Ngày mở tài khoản	21/09/2006
Ngày thực hiện giao dịch gần nhất	15/10/2015
Lãi suất	0.3%/năm
Lãi cộng dồn	3,752 VND

Color conventions

- Red
  - East Asia (China, Vietnam, etc.): luck, on new year celebrations
  - US: sometimes red refers to danger, e.g. stop sign
- White
  - East Asia (China, Vietnam, etc.): death, used in funeral
  - US: purity, used in wedding

Business Color

- **your website**
- **your marketing, advertising and promotions**
- **your retail business**
- **your office or other business premises**
- **your business stationery**
- **your packaging**
- **your business clothing**

Cultural Color

- **Western:**
  - energy, excitement, action
  - danger
  - love, passion
  - a warning to stop
  - anger
  - Christmas combined with green
  - Valentine's Day
- **Eastern:**
  - prosperity
  - good fortune
  - worn by brides
  - symbol of joy when combined with white
- **Hebrew:**
  - sacrifice, sin
- **Christian:**
  - sacrifice, passion, love
- **China**
  - the color of good luck and celebration
  - vitality, happiness, long life
  - used as a wedding color
- **Japan:**
  - life
  - anger and danger

- Western:
  - brides and weddings
  - angels
  - hospitals, doctors
  - peace - the white dove
  - purity and cleanliness

- Eastern:
  - death, mourning and funerals

  - sadness
- China
  - death and mourning
  - virginity and purity
  - humility
  - age
  - misfortune
- Japan:
  - White carnation symbolizes death

- **Western:**
  - power, control, intimidation
  - funerals, death, mourning
  - rebellion
  - Valentine's Day
- **Eastern:**
  - wealth, health and prosperity
- **China**
  - color for young boys
- **Japan:**
  - color of mystery and the night
  - may be associated with feminine energy - either evil and a threat or provocative and alluring

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http://www.empower-yourself-with-color-psychology.com/cultural-color.html

Guidelines for Using

- Resource file
- Use UI toolkits provided in the language