

# Adapting UCD for Open Source Software Development

翁千婷 ( Whiteg WENG )

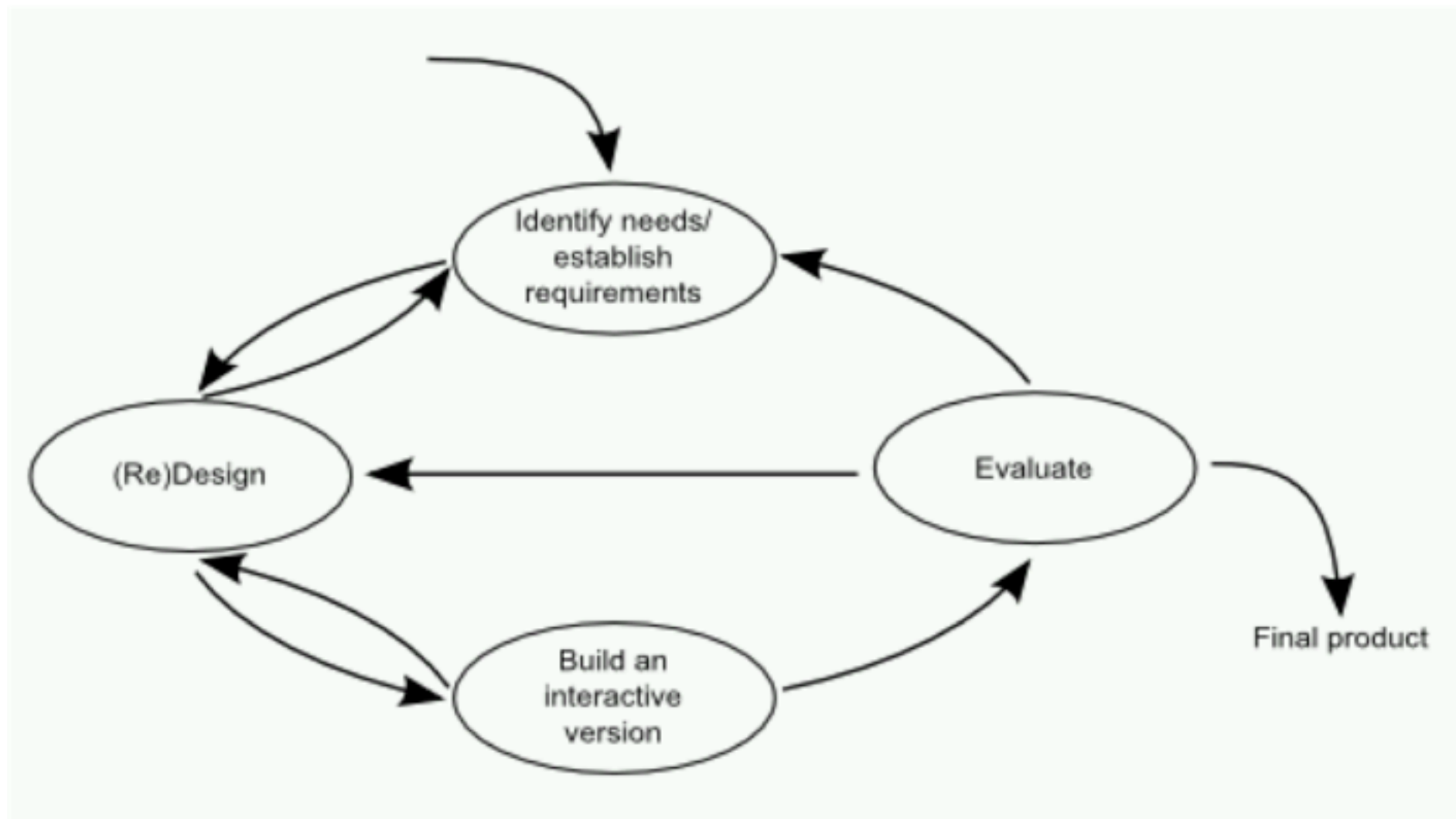
# Outline

- Introduction to UCD
- Challenges of applying UCD on FLOSS
- Case study: Moodle
- Ongoing project: gfx.tw

# UCD: User-Centered Design

# UCD: An iterative design process

# A simple model



Interaction Design: Beyond Human-Computer Interaction, <http://www.id-book.com/>

# Why UCD?

# Create Successful User Experience

To UX designers, success means creating **products** that are **useful, usable, and desirable.**

Charles B. Kreitzberg and Ambrose Little, <http://msdn.microsoft.com/en-us/magazine/dd263095.aspx>

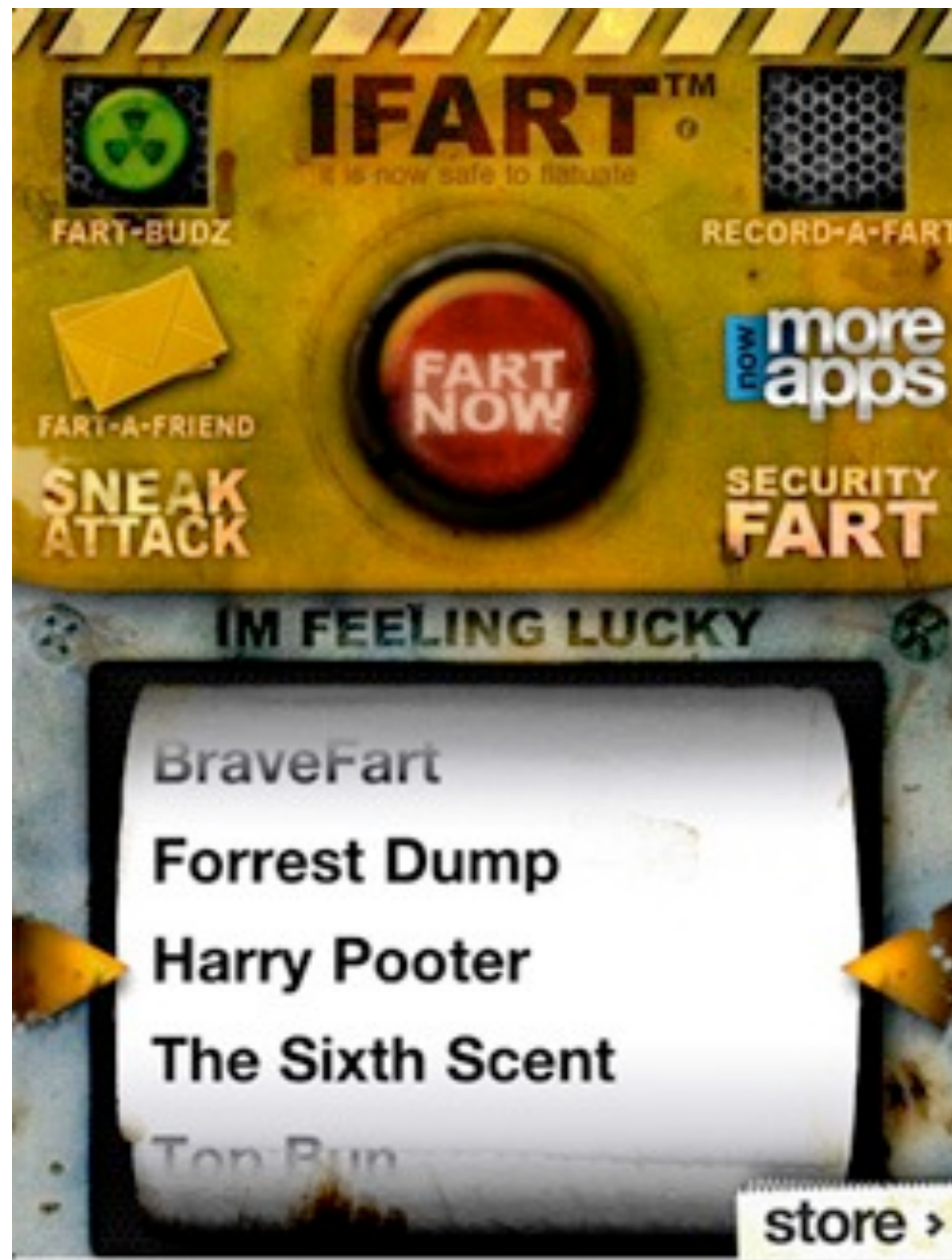


# Product ( 産品 )

Creating something for people you don't know

# Useful (有用)

Satisfactory in functionality



# Usable ( 可用 )

Whether the user can use the provided functions

本車票限以票面所載之日期、車次有效，逾期作廢。  
Valid only on the departure date and train number shown on the ticket.

插入票口  
Insert the ticket this way



台灣高鐵  
TAIWAN HIGH SPEED RAIL

高鐵語音訂位

列車出發前30分鐘完成付款  
還獨享快速取票服務！

4066-0000 代客  
服務時間：06:00~24:00

• 詳情請參考自動語音訂位使用說明 [www.thsrc.com.tw](http://www.thsrc.com.tw)

# Desirable (想用)

The user wants to own the product





# Usability: ISO09241-11

Usability: Extent to which a product can be used by specified users to achieve specified goals with **effectiveness, efficiency** and **satisfaction** in a specified context of use.



# Usability: ISO09241-11

Effectiveness: 可以做得多好？

# Usability: ISO09241-11

Efficiency: 可以做得多快？

# Usability: ISO09241-11

Satisfaction: 操作過程中有多爽/不爽？

# Usability: Jacob Nielsen

**Learnability（可學習性）：在初次接觸系統就能完成基本操作的容易程度。**

Usability 101: Introduction to Usability, <http://www.useit.com/alertbox/20030825.html>

# Usability: Jacob Nielsen

Memorability（可記憶性）：經過一段時間沒用系統後，重新使用還能上手的容易程度。

Usability 101: Introduction to Usability, <http://www.useit.com/alertbox/20030825.html>

# Usability: Jacob Nielsen

Efficiency（效率）：學會使用系統後，  
能多快完成任務？

Usability 101: Introduction to Usability, <http://www.useit.com/alertbox/20030825.html>

# Usability: Jacob Nielsen

**Errors（錯誤）：**使用者犯錯的數量、錯誤的嚴重度、修正錯誤的容易程度。

Usability 101: Introduction to Usability, <http://www.useit.com/alertbox/20030825.html>

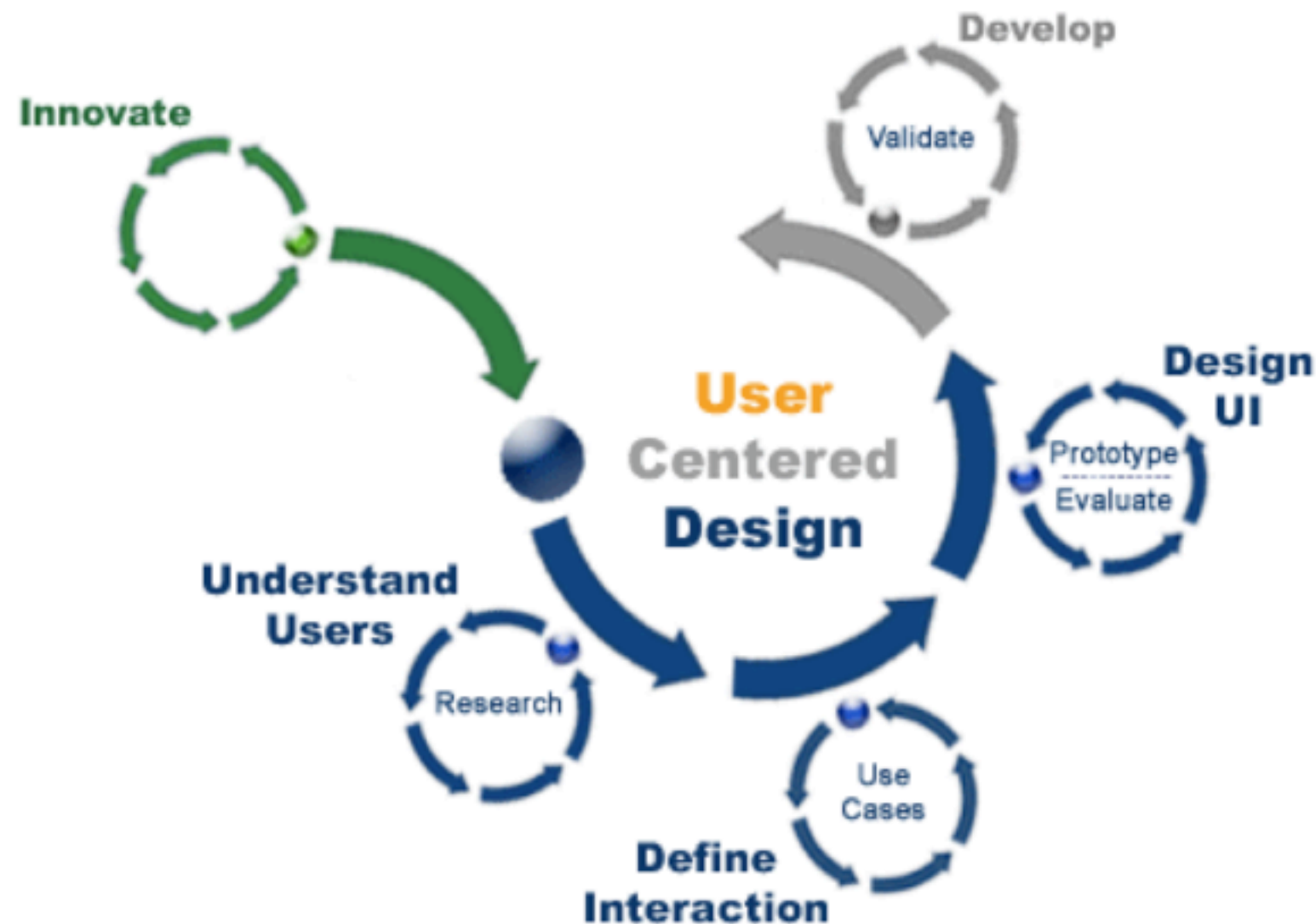
# Usability: Jacob Nielsen

Satisfaction（滿意度）：使用系統時的  
愉悅度。

Usability 101: Introduction to Usability, <http://www.useit.com/alertbox/20030825.html>



# Software development model with UCD



The SAP user-centered design procedd, [http://www.sapdesignguild.org/editions/edition10/ucd\\_overview.asp](http://www.sapdesignguild.org/editions/edition10/ucd_overview.asp)

# Why UCD in FLOSS?

# World Domination



# When FLOSS meets UCD

Scratch your own  
itches

# Developer is user

# Replace proprietary software

**(End) users are missing**



# Floss projects with UX



etc...

# Outcomes

# UI Design Guidelines

# Usability evaluation report

# User research report

# Improved interaction design

# Improved user interface design

**And more...**



# Challenges

Code speaks louder  
than \*

# Entry barrier of tools to UX designers

# Distributed development model

# Limited resource

**Most FLOSS projects  
are poor**

**UX designers can be  
free but accessing users  
is not**

# Solutions?



No best practice yet

# Case study: Moodle usability

Moodle: The user's experience, <http://www.pilpi.net/software/moodle/>

# Began as a school project work: Quiz UI redesign

Moodle: The user's experience by Olli Savolainen, <http://www.pilpi.net/software/moodle/>

# Developed Moodle UI Guidelines

Moodle: The user's experience by Olli Savolainen, <http://www.pilpi.net/software/moodle/>

# Usability specialist for Moodle

Moodle: The user's experience by Olli Savolainen, <http://www.pilpi.net/software/moodle/>

Ongoing project:  
gfx.tw

**gfx.tw: a website for  
promoting Firefox.**

**Current status:  
an established website.**



**Problem:**  
**How to decide the  
priority of developing  
new features?**

# What we have done?

# Talk to developers

# Gathered statistics of website activity

# Gathered feature requests

# What next?

# User research on gfx.tw contributors

# References

- The Human Face Of Software, <http://msdn.microsoft.com/en-us/magazine/dd263095.aspx>
- 費茲定律Fitts' Law與使用者介面設計, <http://blog.vgod.tw/2009/10/02/fitts-law/>
- *Interaction Design: Beyond Human-Computer Interaction*, <http://www.id-book.com/>
- The SAP user-centered design process, [http://www.sapdesignguild.org/editions/edition10/ucd\\_overview.asp](http://www.sapdesignguild.org/editions/edition10/ucd_overview.asp)
- “Usability Processes in Open Source Projects” by David M Nichols and Michael B Twidale
- “A Survey of Usability Practices in Free/Libre/Open Source Software” by Celeste Lyn Paul
- “Ten Lessons Learned from Netscape’s Flirtation with Open Source UI Development” by Trudelle, P.
- Usability 101: Introduction to Usability, <http://www.useit.com/alertbox/20030825.html>
- Moodle: The user's experience, <http://www.pilpi.net/software/moodle/>