Lab Agenda

- Why Usability matters?
- Project
  - Selection
  - Plan
  - Team formation
  - Deliverables

Why Usability Matters?

- Jayden Khakurel

"The purpose of life is to contribute in some way to making things better."
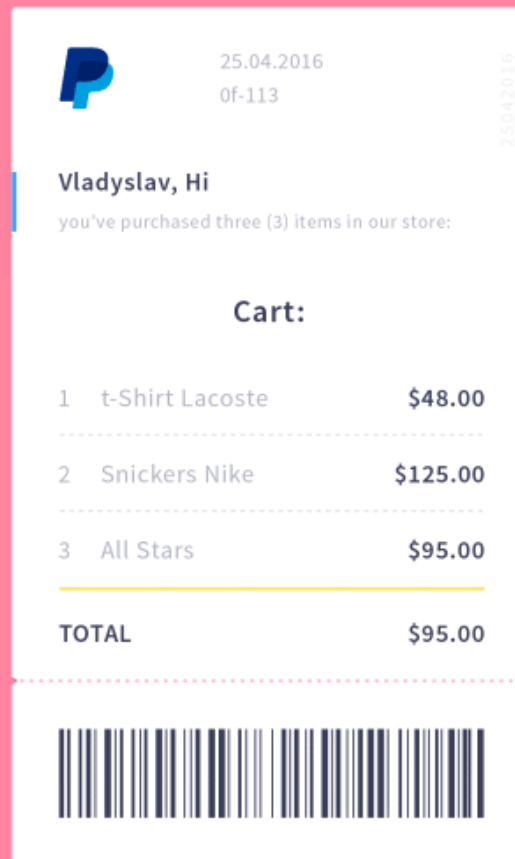Robert F. Kennedy

Everyday we encounter good
or bad design….

Is it usable?

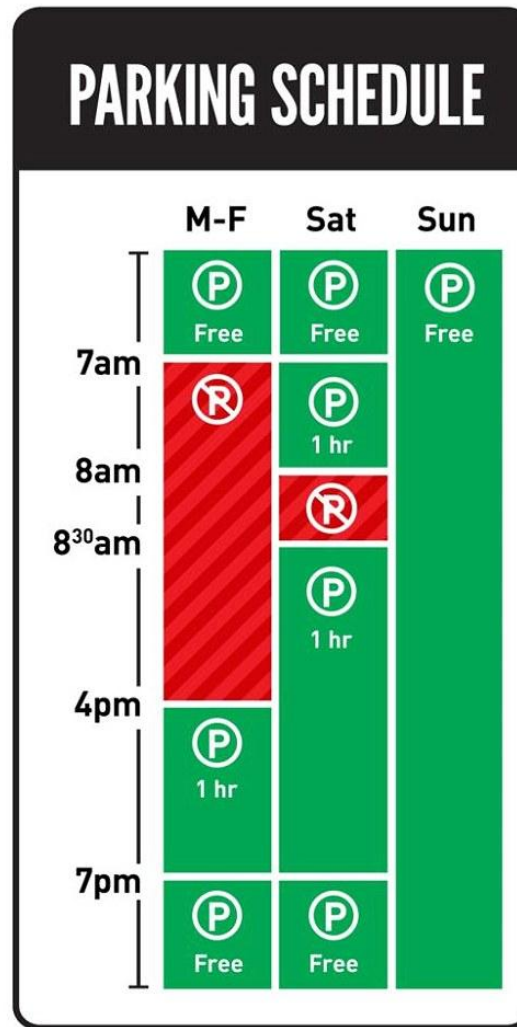https://mckinspiration.wordpress.com/tag/bad-design/

Good or bad ?

Lappeenranta University of Technology

What is the issue with this design?

Source: http://www.noxtar.com/2016/01/why-are-street-parking-signs-so.html

Lappeenranta University of Technology

Good or bad?

What is the issue with this image?

Image source: http://www.bolden.nl/

What have we learned from previous examples

– Design should be usable
– Only minimal information but more specific
– Design for users not for designers
– Error free
– Information loading

But still……..

Usability in software and services

Current issues

- new mobile survey by search marketing agency *Catalyst,* in conjunction with *GroupM* shows that application market is over saturated.[1]

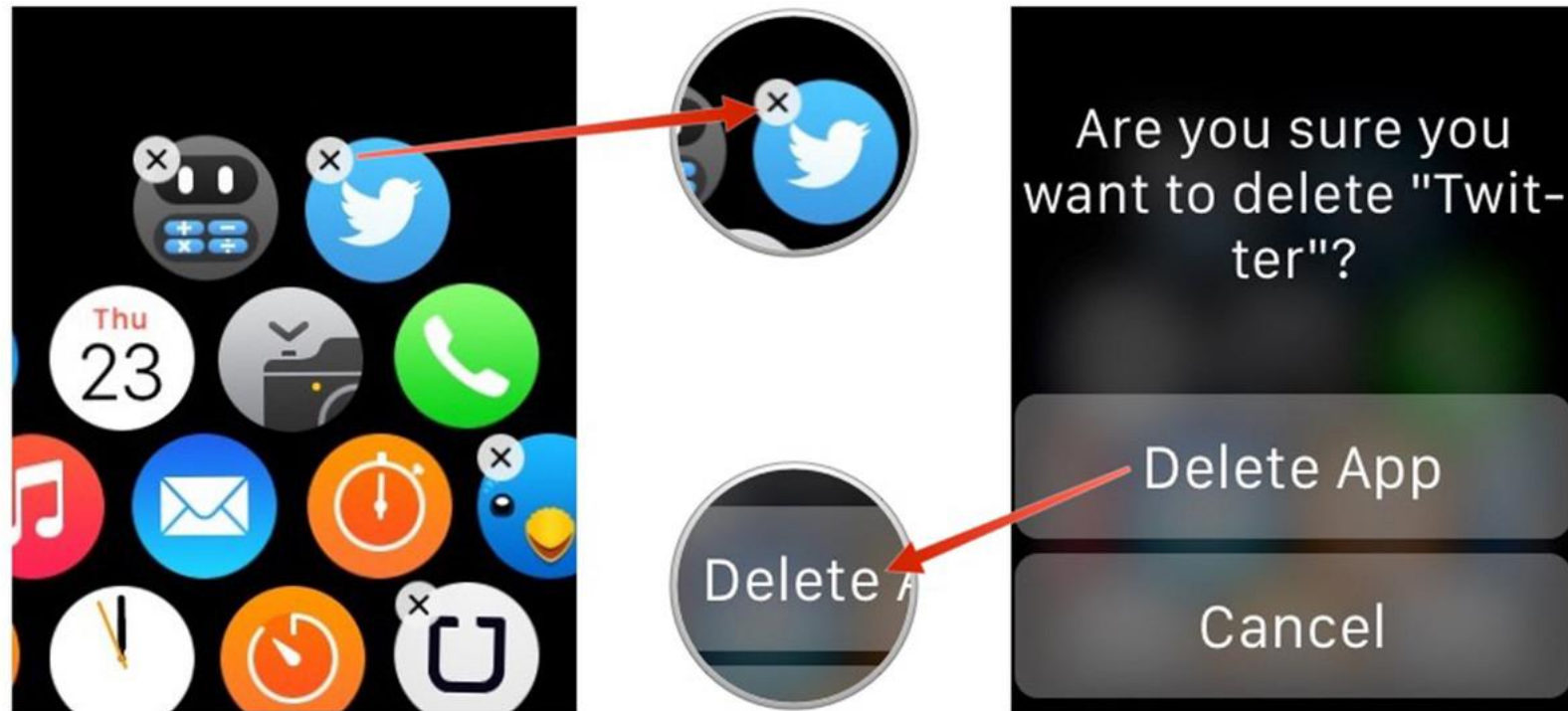- *another study shows that 77 percent of users never use an app again 72 hours after installing*

Source:
http://www.androidauthority.com/77-percent-users-dont-use-an-app-after-three-days-678107/
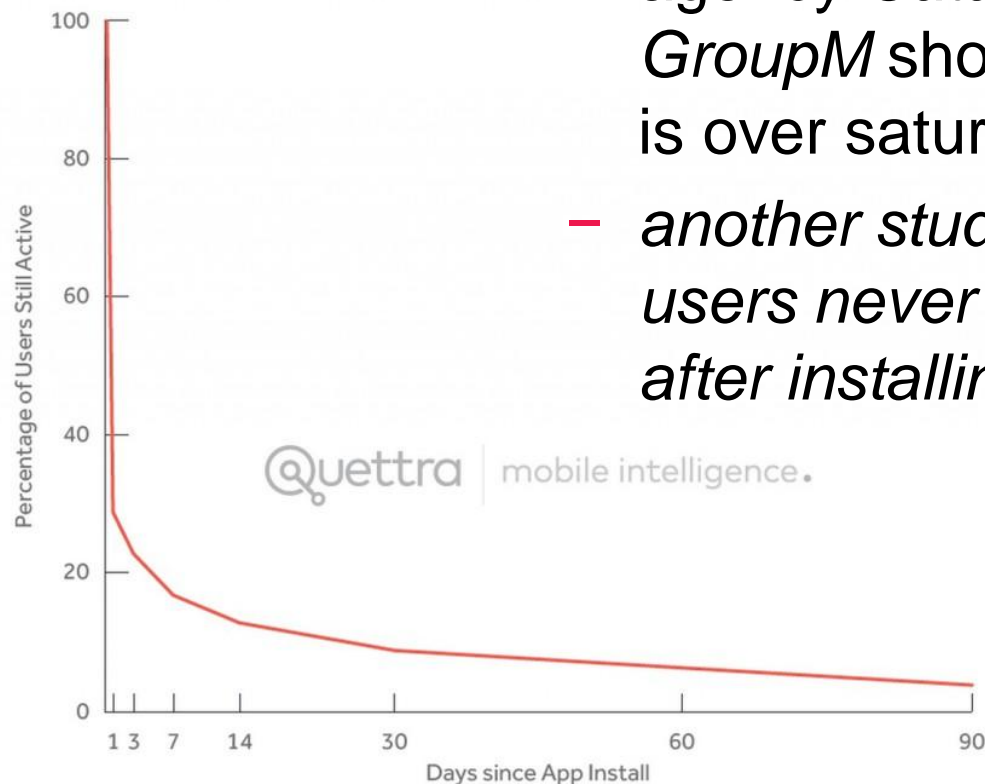
marketingmag.ca/media/app-market-is-over-saturated-study-142633

Everything works, but then why users still delete my app?

Reasons

- Some of the reasons:

User's perspective

  - Unhappy with the user experience
  - Frustrated with app crashing or being unstable
  - Takes lots of space
  - No real use case
  - App from the competitors – in terms better functionality, features
  - Problems for users, both advanced users and the public in general, often originate in poorly designed user interfaces (Stone et al., 2005)
  - Too many apps on my phone

Developers and designers

  - do not often design the products or mobile applications considering users' characteristics and limitations.
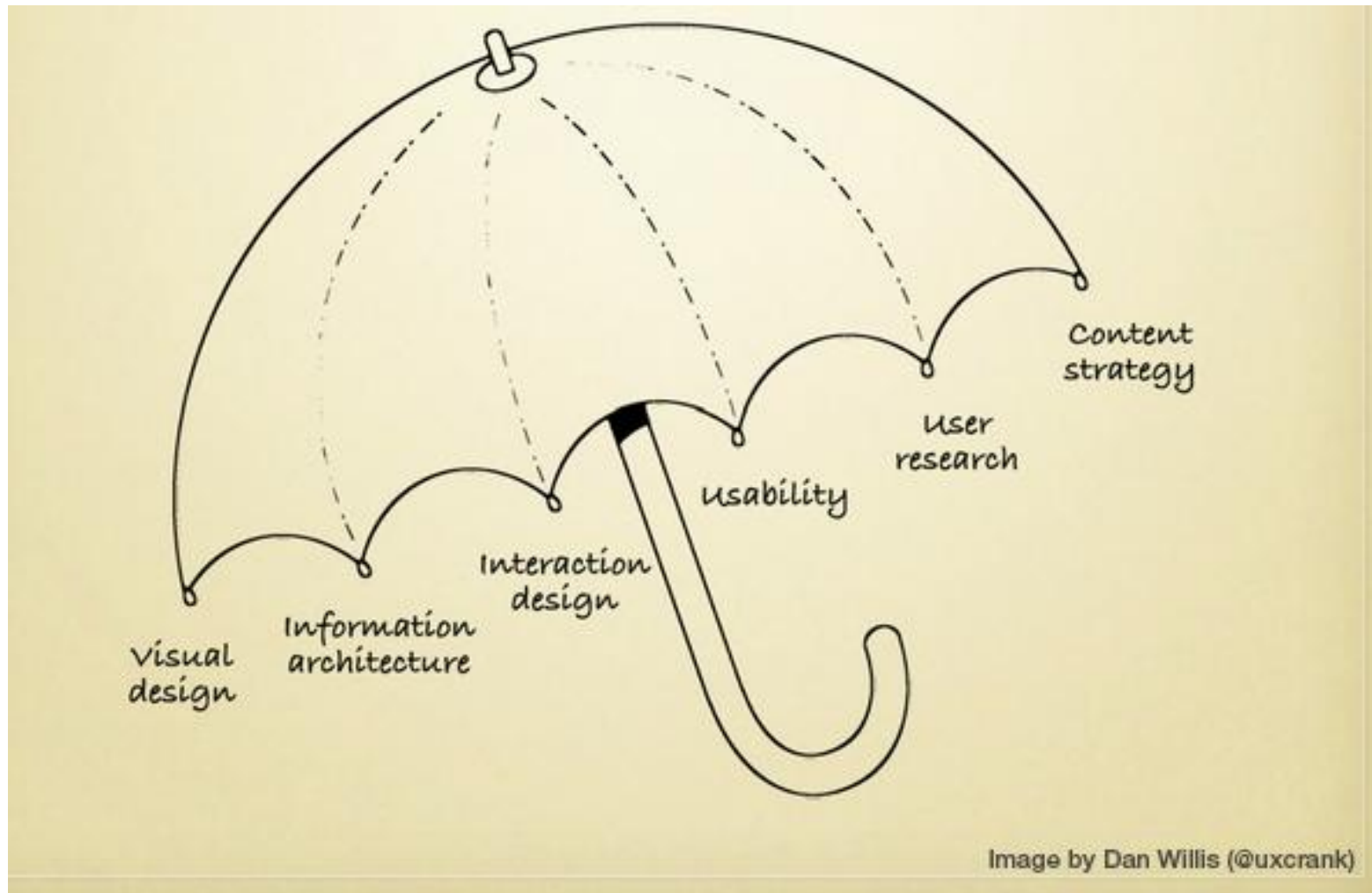 - mostly design what they feel its good

How to eliminate

- Designer and developer should show their idea provide real utility for users.
- Follow software quality standard ISO/IEC 25010:2011
  - Functionality
  - Reliability
  - Usability
  - Efficiency
  - Maintainability
  - Portability

Usability 101

Usability is part of User experience (UX)

Image by Dan Willis (@uxcrank)

Usability

- (Trivedi, 2012) state that "the user is concentrating on the usability".
- usability has become an important parameter today, that is, how easily people can use the product's controls or displays to manipulate a tool, automobile, aircraft, etc.
- What is Usability?
    - is the quality attribute that access **how easily both primary and secondary users can interact easily with the device** and **its characteristics (such as physical and software)** when used under specified conditions **to achieve specific goals.** (Khakurel et. al, 2016)
- ISO 9241-11 (International Organization for Standardization, 1998)
    - "*usability as the 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

Further, according to Nielsen it can be defined by 5 quality components :

- **Learnability:** How easy is it for users to accomplish basic tasks the first time they encounter the design?

- **Efficiency:** Once users have learned the design, how quickly can they perform tasks?

- **Memorability:** When users return to the design after a period of not using it, how easily can they reestablish proficiency?

- **Errors:** How many errors do users make, how severe are these errors, and how easily can they recover from the errors?

- **Satisfaction:** How pleasant is it to use the design?

Usability benefits

- Increases user satisfaction
- Reduces training costs
- Help to increase user base and in revenue
- Reduces both short and long term maintainability cost
- Reduces cognitive load: metal load to perform action
- Enhances reputation and loyal users

Achieving usability

How to achieve usability

- Always get hold of target users in early stage (Human Centric design-HCD)
  - [Earson 1988] identified three kinds of users for use of technology and associated applications:
    - **Primary**: person who uses the technology and associated applications,
    - **Secondary**: who actually uses the technology and associated applications occasionally or through an intermediary and
    - **Tertiary**: who will be affected by the use of technology and applications or make decision for the purchase of the technology or associated applications.

When ?

Always keep the user in the center stage of the design

Concept phase:

- Who are the **target users**?
- **Context** of use of the application
- What kind of **task** will be performed?
- **When** and **where** the applications will be **used**?
- What users **feel** about the concept?

When ?

Design & Prototype phase:

- **Ask** the **target users to perform tasks** with the design in the form of prototyping.

- **Observe** every performance of the user with your design
  - **what** the they do,
  - **where** do they find difficulties while using your User Interface design to perform task,
  - **How** long does it take them to conduct the each task
- **Note** every **observation**
  - what the users do,
  - where they succeed, and have difficulties with the user interface.

Watch like a big brother. Don't say anything.

Next week: Designing Usability: Techniques

What to do next?

Project idea selection

- E-contractor(Sub-contractor Management system)
- Foodie (Food waste Management system)
- Finn (Car finance Management system)
- Any other ideas??

Activities

1. Form a team (5/group)
2. Generate a project idea
3. Elaborate a project plan (Scenario description, Problem description, Solution description, proposed architecture, solution qualities, timeline)
4. Complete deliverables
5. Submit

- Project plan submission including weekly report on beach board 05.09.2016.

- Project plan presentation on 06.09.2017 (Lab session) 5 MINS

- Keep project plan always updated