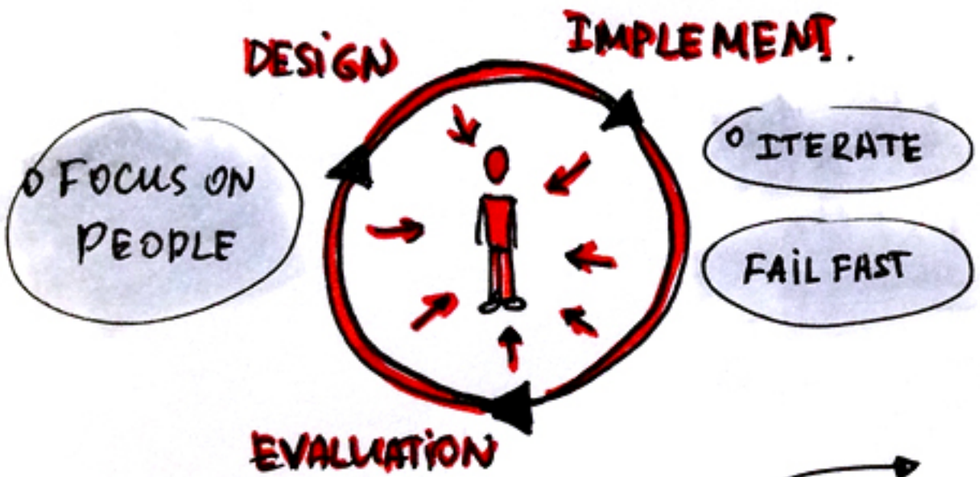
1.1. HUMAN COMPUTER INTERACTION

by Scott Klemmer

YOU WILL GET WHAT YOU PUT IN THIS COURSE

SKETCHNOTES BY ANNA ILURENKO @thenextmobile

THIS IS DESIGN, IMPLEMENTATION AND EVALUATION OF USER INTERFACES



USERS ARE JUST ONE OF THE MANY STAKEHOLDERS IN THE DESIGN PROCESS

IN DESIGNING FOR PEOPLE DON'T FORGET OTHER PIECES OF THE PUZZLE (development cost, support...)

GOOD design

- bring people joy
- helps do things
- helps to connect people that we care about
- impact on society

BAD design

causes problems & degrades people's quality of life

- costs lives, money and time

10 min of frustration

300,000,000

3 BIN person-min a DAY

Fixing these problems requires following just basic principles like **consistency** and **feedback**

DESIGN FOR PEOPLE

- people's tasks, goals and values drive development
- work with users throughout the process
- assess decisions from the vantage point of users, their work & environment
- pay attention to people's abilities and situation
- talk to the actual experts

COURSERA

1.2 THE POWER OF PROTOTYPING

by Skott Klemmer

IDEO

KODAK '90s early consumer digital camera ⇒ KODAK DC210

BIG NO COMPUTATION

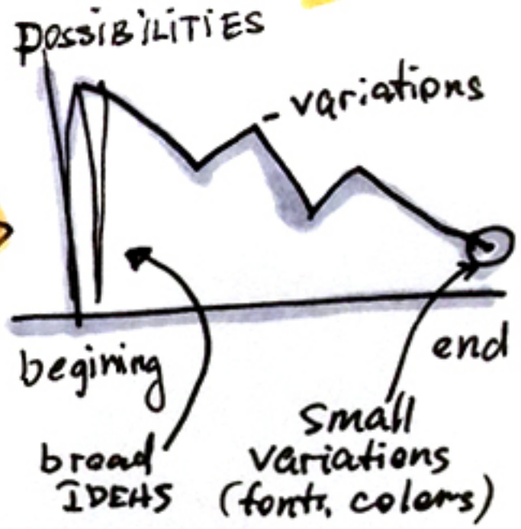
SKETCHNOTES BY @THE NEXT MOBILE

BIGGEST CHANGES EARLY

1 IDEA THAT YOU SHOULD GET OUT OF THIS CLASS

FEEDBACK is a GOAL

PROTOTYPES ARE OUGHT TO BE INCOMPLETE



PROTOTYPING IS A TREMENDOUSLY VALUABLE STRATEGY FOR EFFECTIVE DESIGN

IS A STRATEGY FOR EFFICIENTLY DEALING WITH THINGS THAT ARE HARD TO PREDICT

- ENABLE DESIGNERS TO GET FEEDBACK
- ENBODY DESIGN HYPOTHESES
- BY TRYING THINGS OUT AND LEARNING YOU ARE ABLE TO IMPROVE

Known unknowns + UNKNOWN UNKNOWNS

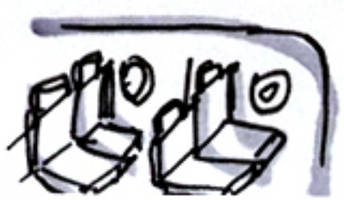
SET GOALS EARLY AND EVOLVE THEM AND REVISE YOUR DESIGN

FORM FACTOR !!!

PALM PILOT'S PROCESS → "crazy" JEFF HAWKINS
- taking notes
- checking calendar

- should not be required to be complete
- easy to change
- gets to retire

WALTER DORWIN TEAGUE
BOEING INTERIOR PROTOT.



FEEL
- WHAT IT MIGHT LOOK LIKE

IMPLEM.
- WHAT IT MIGHT WORK LIKE

ROLE
- WHAT EXPERIENCE

1.3 EVALUATING DESIGN

by Scott Klemmer

THE INSIGHTS THAT YOU WILL GET FROM TESTING DESIGN CAN HELP TO GET NEW IDEAS, MAKE CHANGES, & DECIDE WISELY

HOW WE CAN MEASURE IT

EMPIRICAL RESEARCH

WHY EVALUATE WITH PEOPLE

- you may know to much about UI
- you may acquire blindence through designing UI

USABILITY STUDY

⊖ in the real world ppl may have different tasks, goals, motivations

⊖ „please me" bias

SURVEY & FOCUS GROUPS

⊕ quickly to get feedback from the large # of people

⊖ difference between what people say & what they do

⊖ ppl inclined to say polite things

FEEDBACK FROM EXPERTS

- heuristics evaluations

COMPARATIVE EXPERIM.

- actual behaviour

PARTICIPANTS OBSERVATION

⊕ actual work environment

⊕ gaining insights by discovering people's actual practices

SIMULATION & FORMAL MODELS

- ASSUMPTION ⇒ results (theory & predictions)
- try number of alternatives
  Monte Carlo optimisat.
  (shapewriter system, Shuman Zhai)
- Pete Pirolli at PARC

SKETCHNOTES BY @thenextmobile

1.4 THE BIRTH OF HCI

JULY 1945, VANNEVAR BUSH „As we may think", Atlantic Monthly

human-centered vision

MEMEX

FUTURE INTERACTIVE DESK

- information storage & retrieval
- wrote how tech. could augment human intellect

GRACE HOPPER
- invited the compiler

MIT

IVAN SUTHERLAND

GUI

USERS INPUT IS PERFORMED ON TOP OF THE OUTPUT

THE MOUSE & HYPERTEXT

1945 DougEngelbart, (radar tech)

1968

ALAN KAY → STANFORD

XEROX PARC

GUI, icon, folders ...

STAR 1981

1970