Lecture 3: Design process

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So far…

- What is HCI, and importance of context
- Human-centred design is all about usefulness and usability
  - Systematic ways to do so!
- Interdisciplinary nature of HCI
- Brief history of HCI
  - Starting with history of computers
  - Three waves – single user, groups, ethics and society.

- Today → how do build useful & usable “stuff” systematically / repeatably

User-centred design process

- What is user-centred?
  - Start from, and focus on user needs, wants, constraints, attitudes, etc.
  - Compare to technology-centred, where you have the tech and then find use for it (have a hammer and then find a nail to hit!)

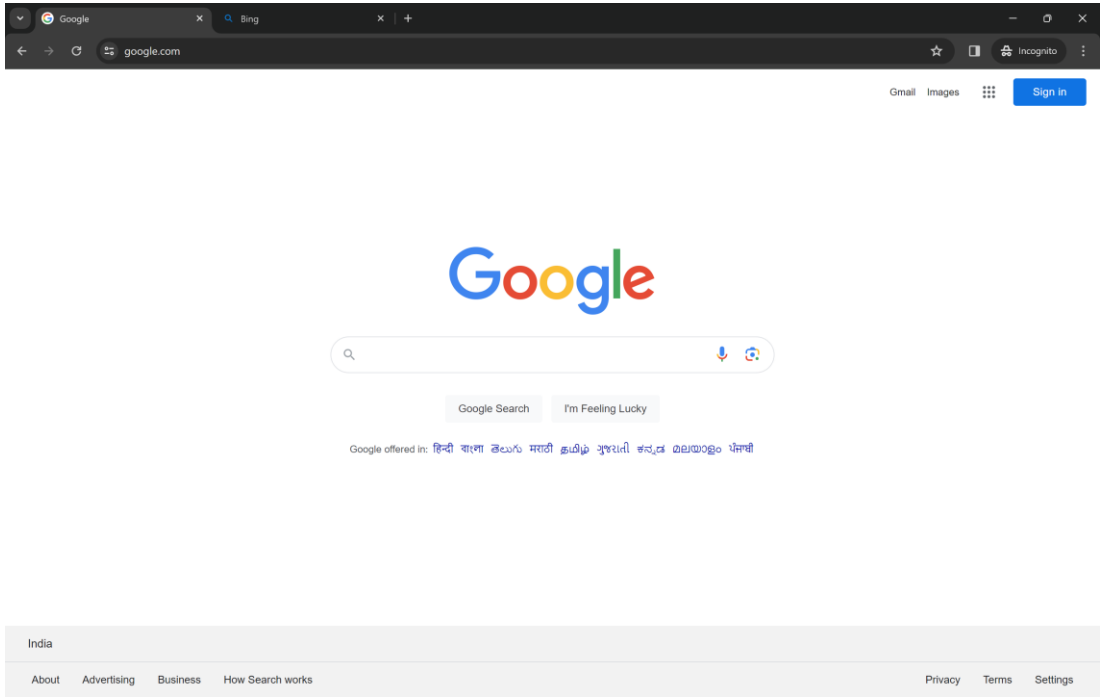
- What is design?
  - Envision, plan and create “stuff” (interface, interaction, product, homes, clothes, jewellery, machines, etc.)

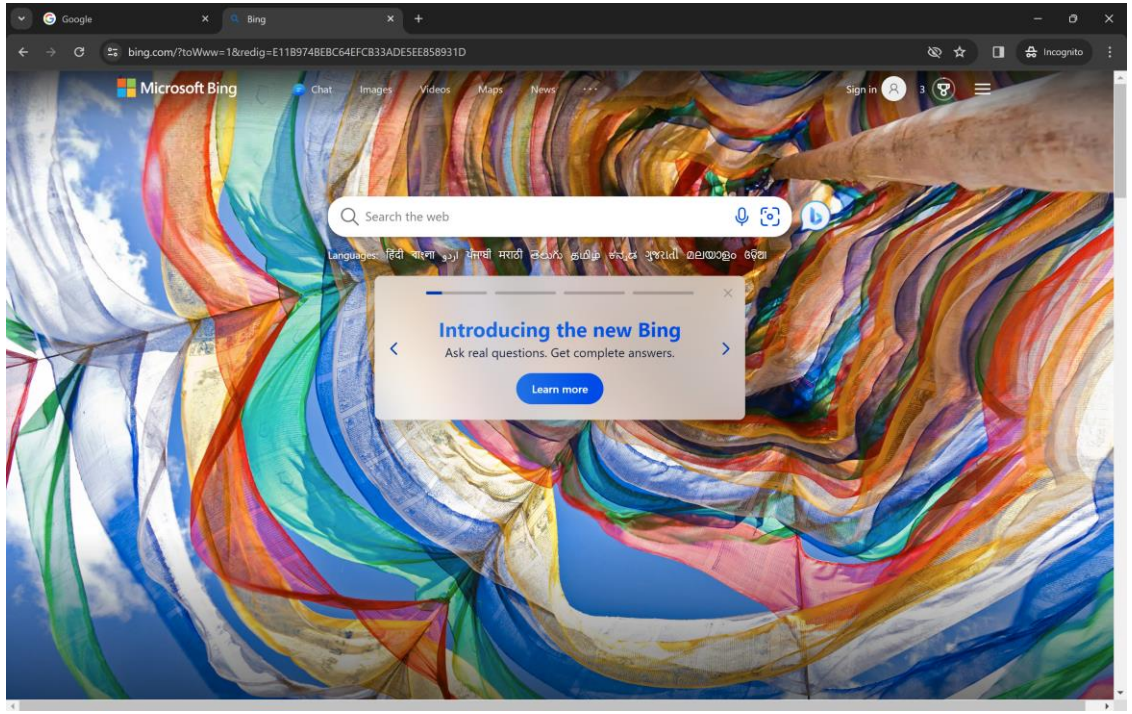
Design: some basics

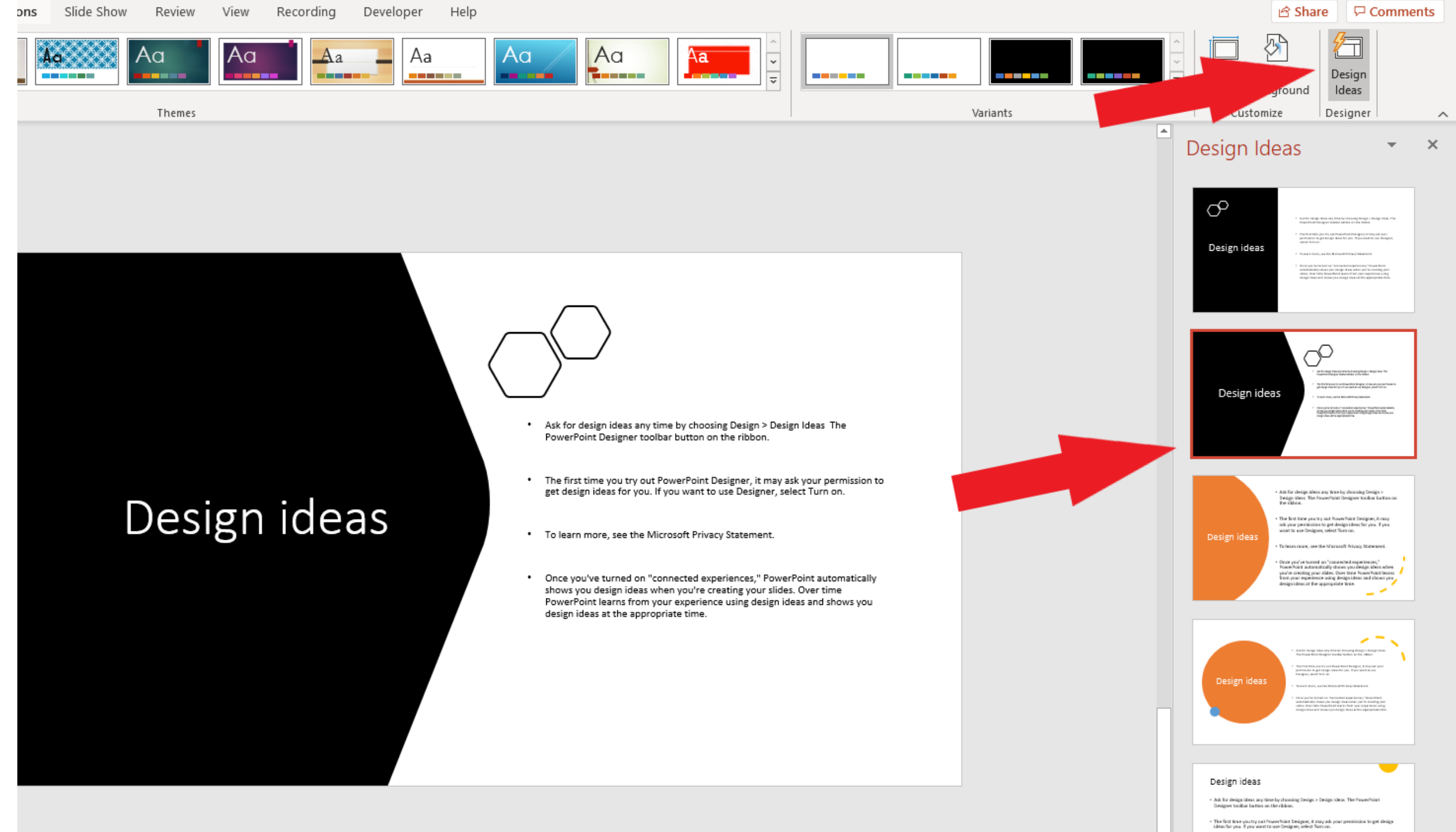
- What it is not
  - Not about making things pretty
  - Not about colours, fonts, layouts and appearances (alone!)
  - Not sketching and drawing

- What it is
  - Finding elegant, useful and usable solutions to problems
  - Serve the people that use the “thing”!
    - The thing’s purpose and “how to use” is obvious and not confusing
  - A mix of art, science and “creativity”
  - Like “salt in food”, good design is invisible.
    - Its absence is felt, presence goes unnoticed!

Examples of good and bad design



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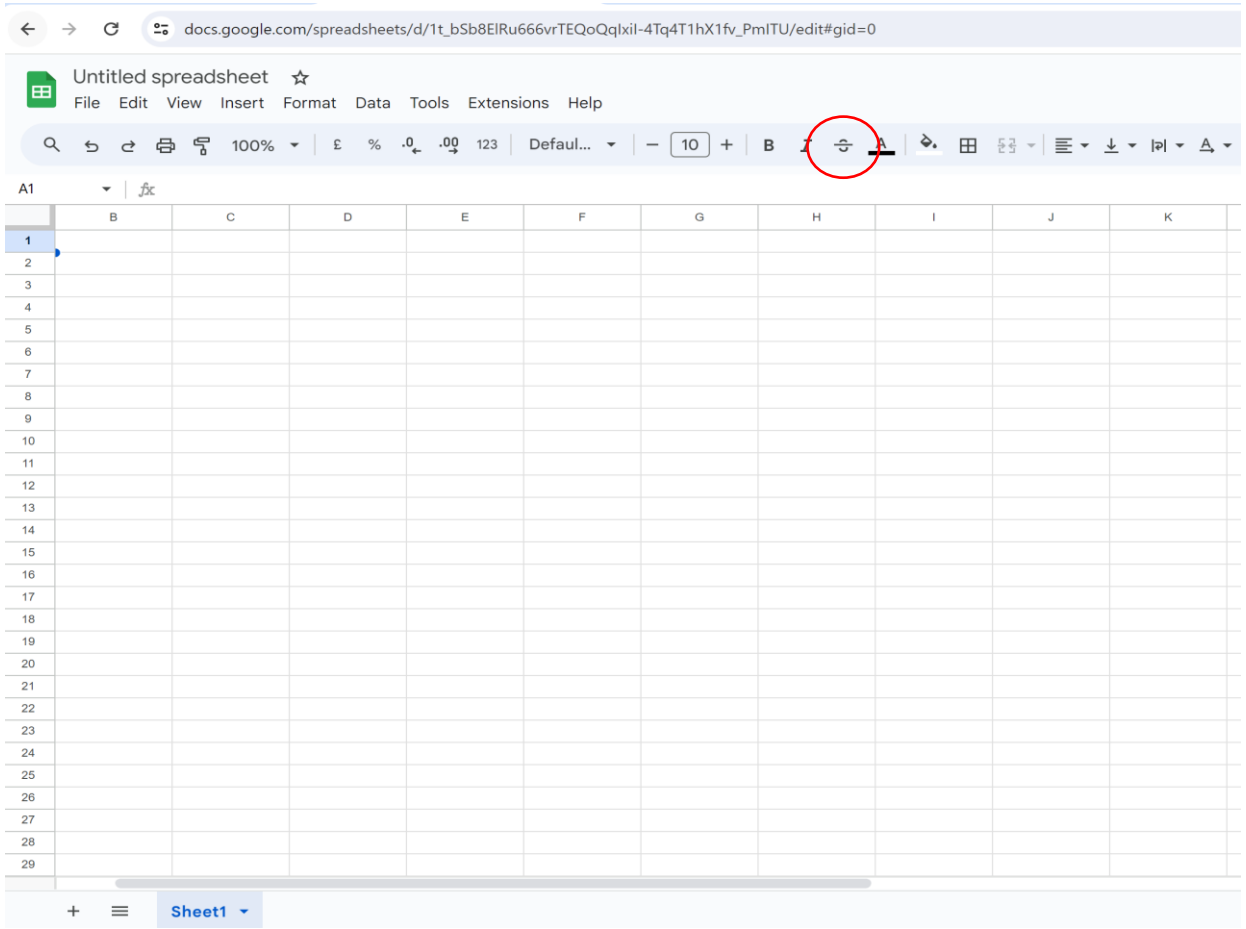
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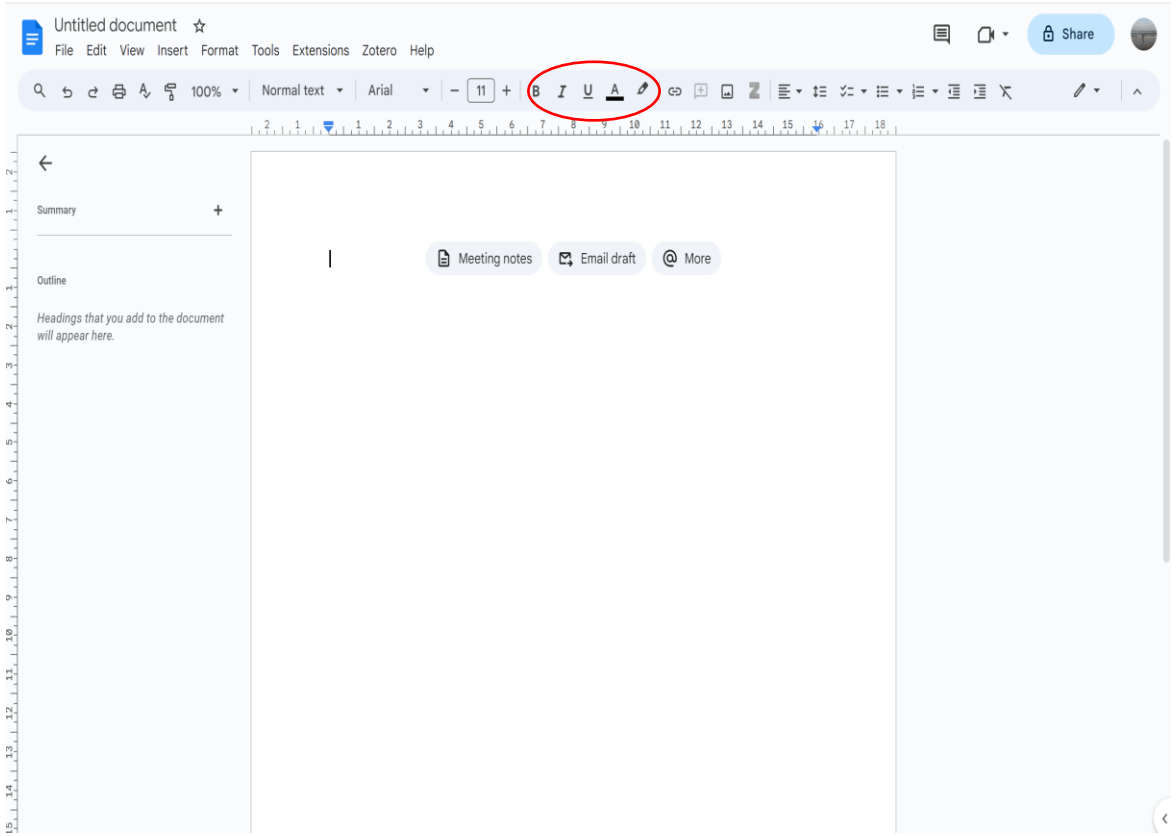
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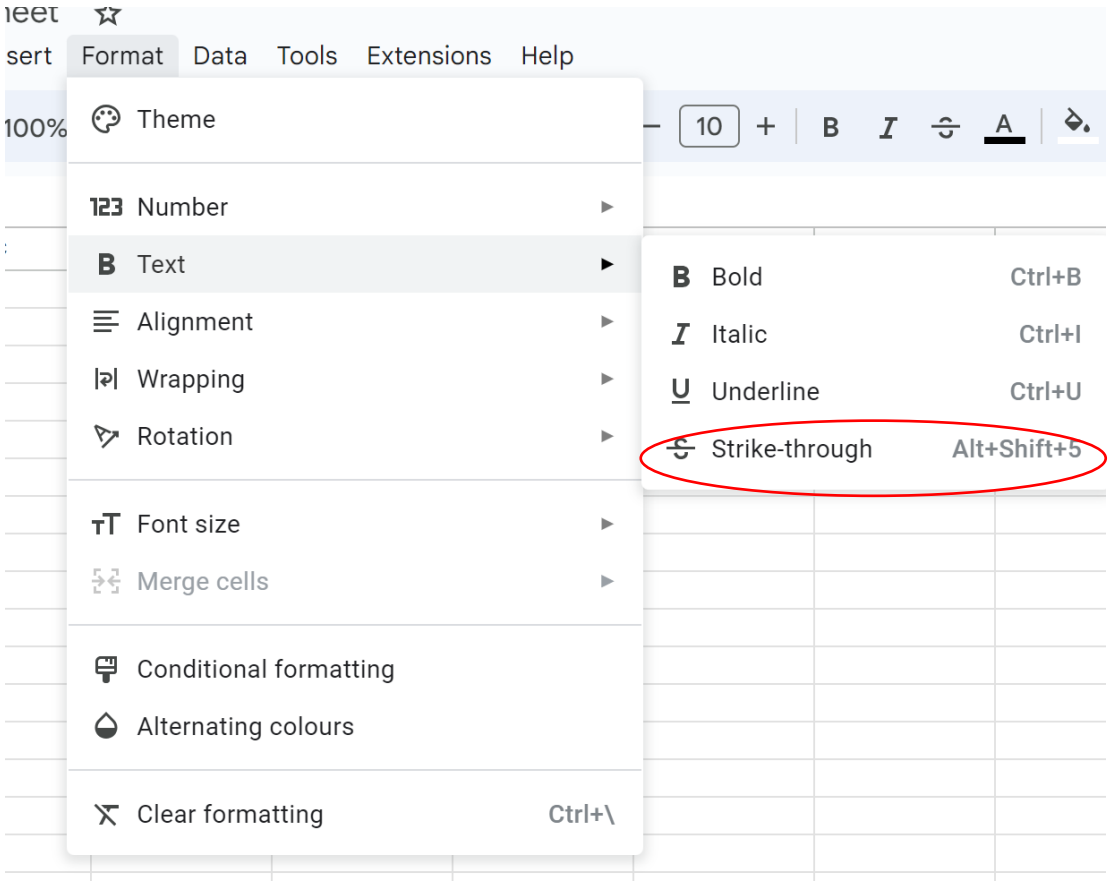
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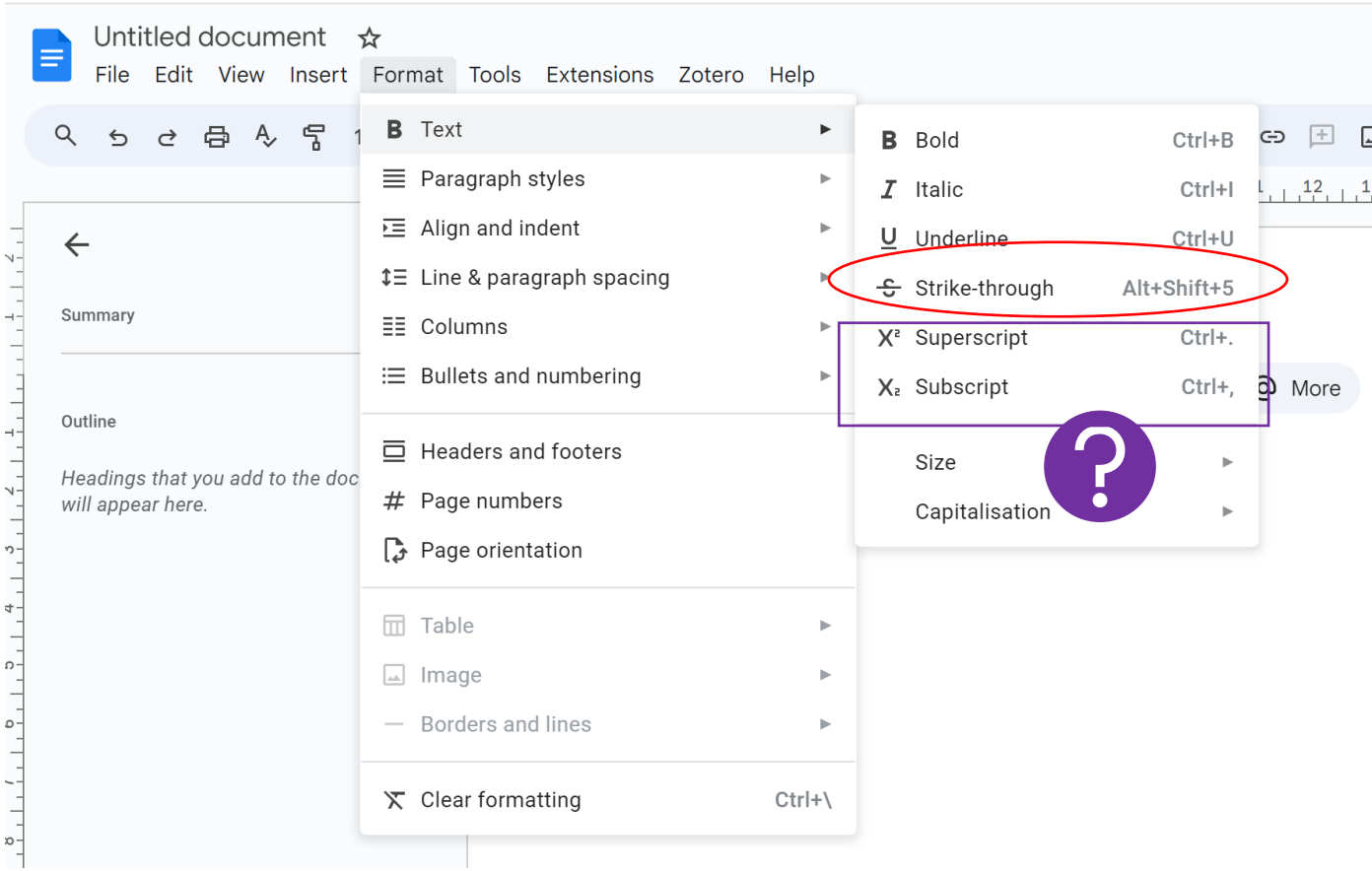
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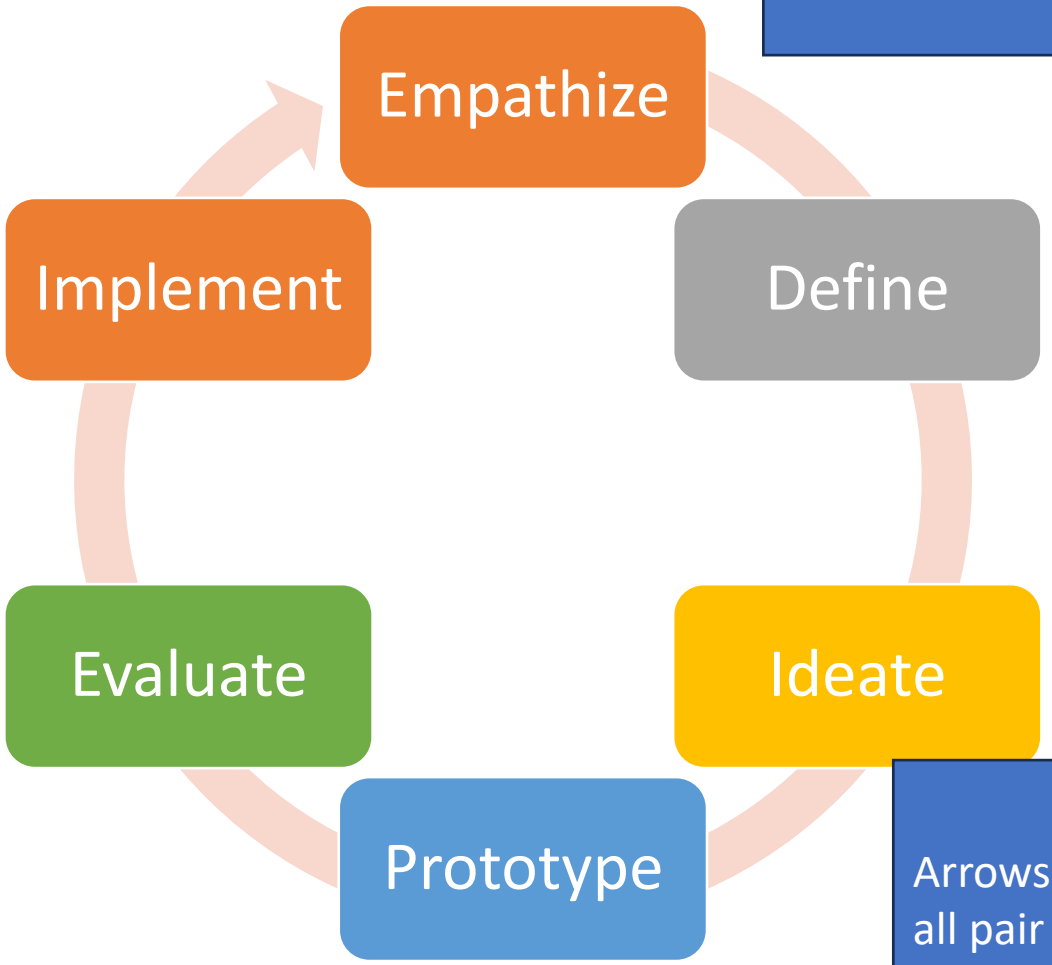
Other examples?

How do we design well?

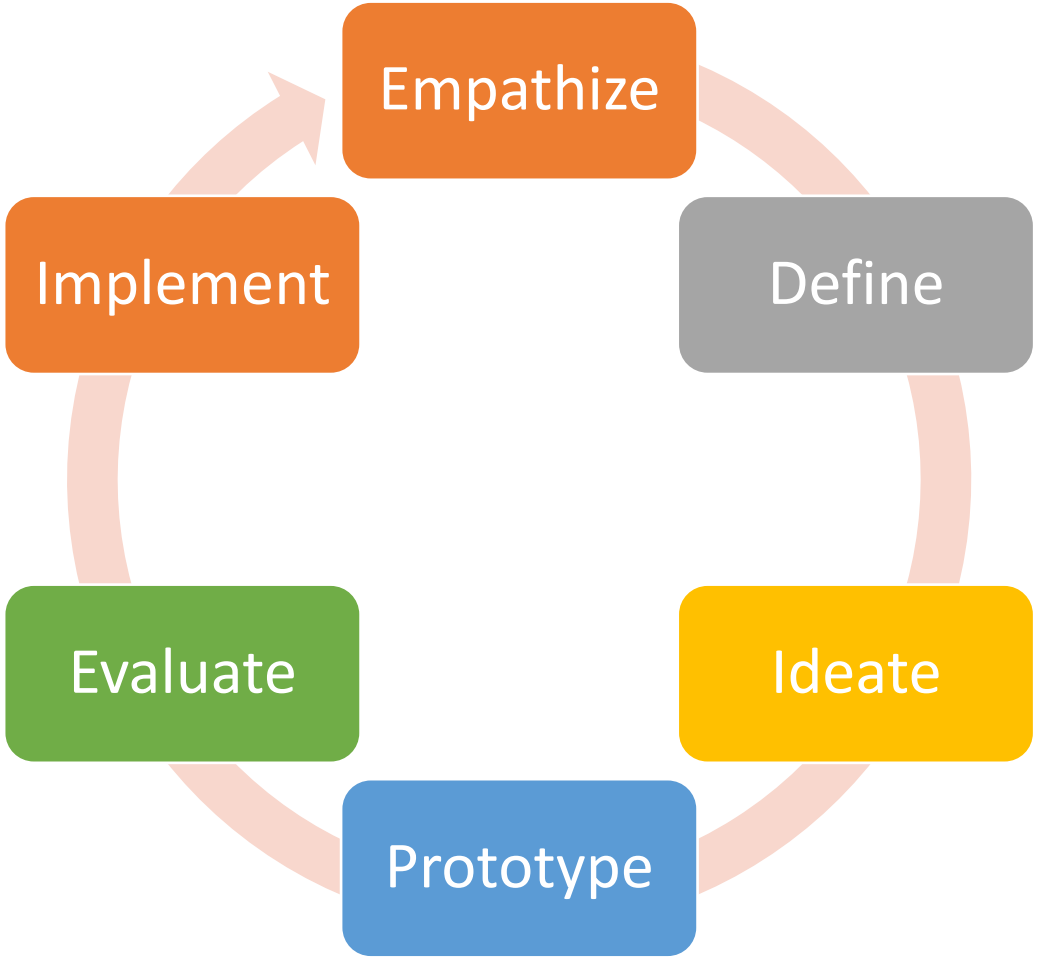
Remember:
Good design aims to serve the users of the designed!

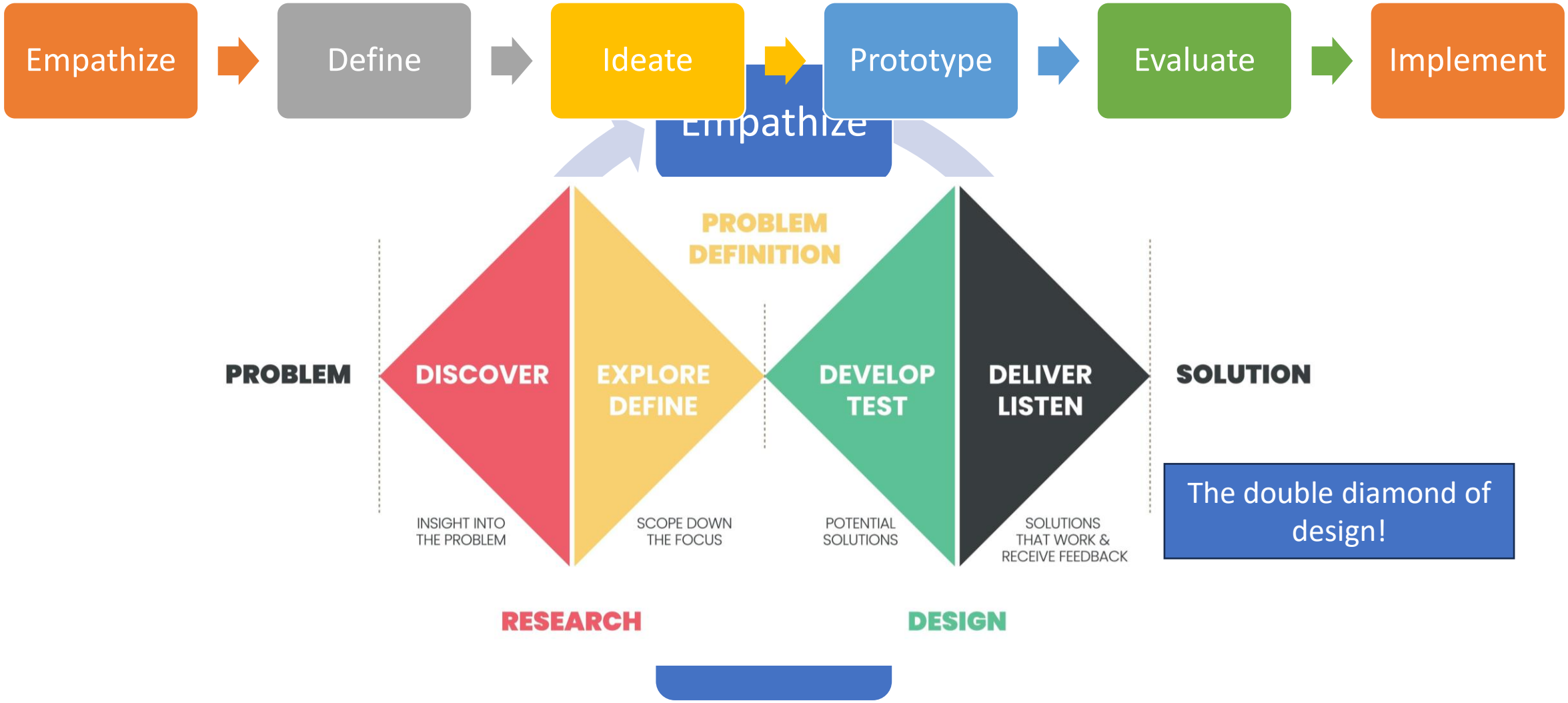


Arrows go in both directions, and between all pair of stages!

Design thinking process / framework

- Originated in Stanford, courtesy David Kelley and Tim Kelley
- Went onto build IDEO, one of the best design firms




Empathize
Define
Ideate
Prototype
Evaluate
Implement
Empathize
PROBLEM DEFINITION
PROBLEM
DISCOVER
EXPLORE DEFINE
DEVELOP TEST
DELIVER LISTEN
SOLUTION
INSIGHT INTO THE PROBLEM
SCOPE DOWN THE FOCUS
POTENTIAL SOLUTIONS
SOLUTIONS THAT WORK & RECEIVE FEEDBACK
RESEARCH
DESIGN
The double diamond of design!

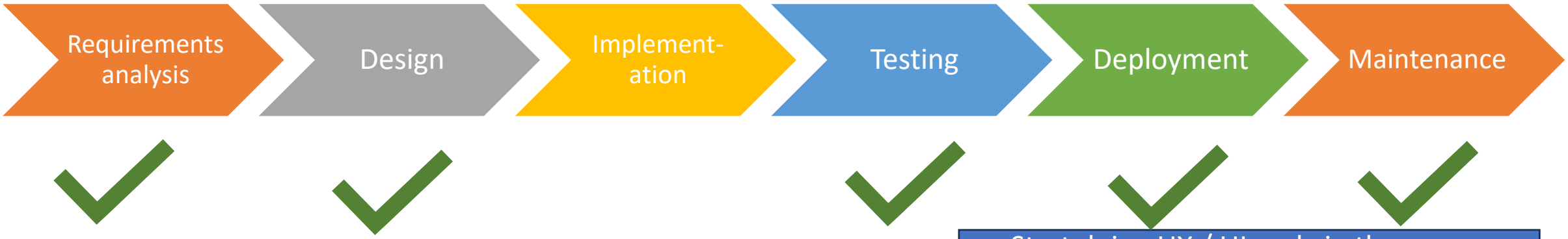
This course is about systematic ways to…

- Understand and empathize with users
- Define a problem
- Ideate solutions
- Prototype solutions
- Evaluate prototypes

Methods common broadly for all kinds of design, but we focus on HCI problems!

Question: How does HCI fit in with SDLC?

Where do user-centred methods fit in here?

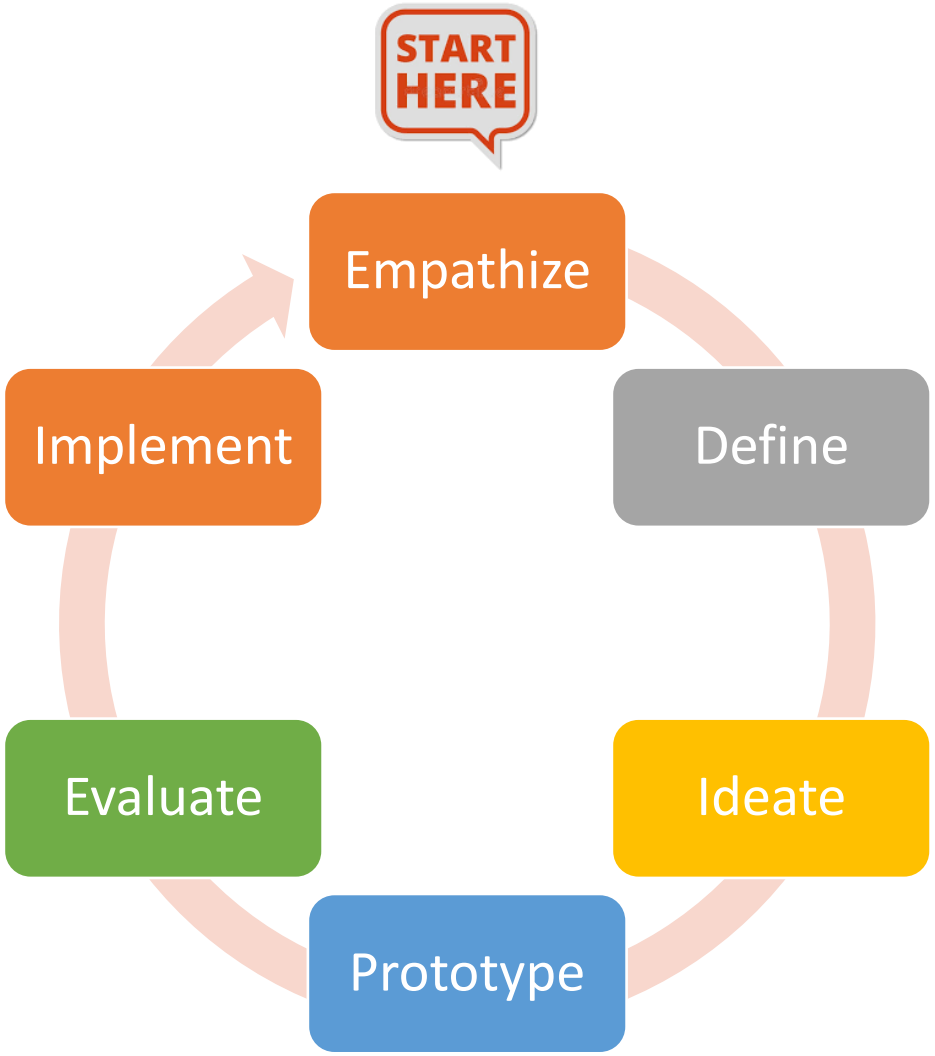


- Start doing UX / UI early in the process
- Consider the user at all stages of the SDLC process
- If you consider user needs / usability too late, it might be too late to fix issues
- The reason for most useless, unusable software!
- Most Product Management is HCI stuff!

Readings

- Preece, Chapter-1
- Dix, Chapter - 5

Next class…


START HERE
Empathize
Define
Ideate
Prototype
Evaluate
Implement