Topic 4: Requirements Capture & User Profiling

Summary (last week)

- Two main reasons to gather requirements
- PACT Analysis helps you consider different aspects of the environments that you will be facing
- Good HTAs lead to good CDs!

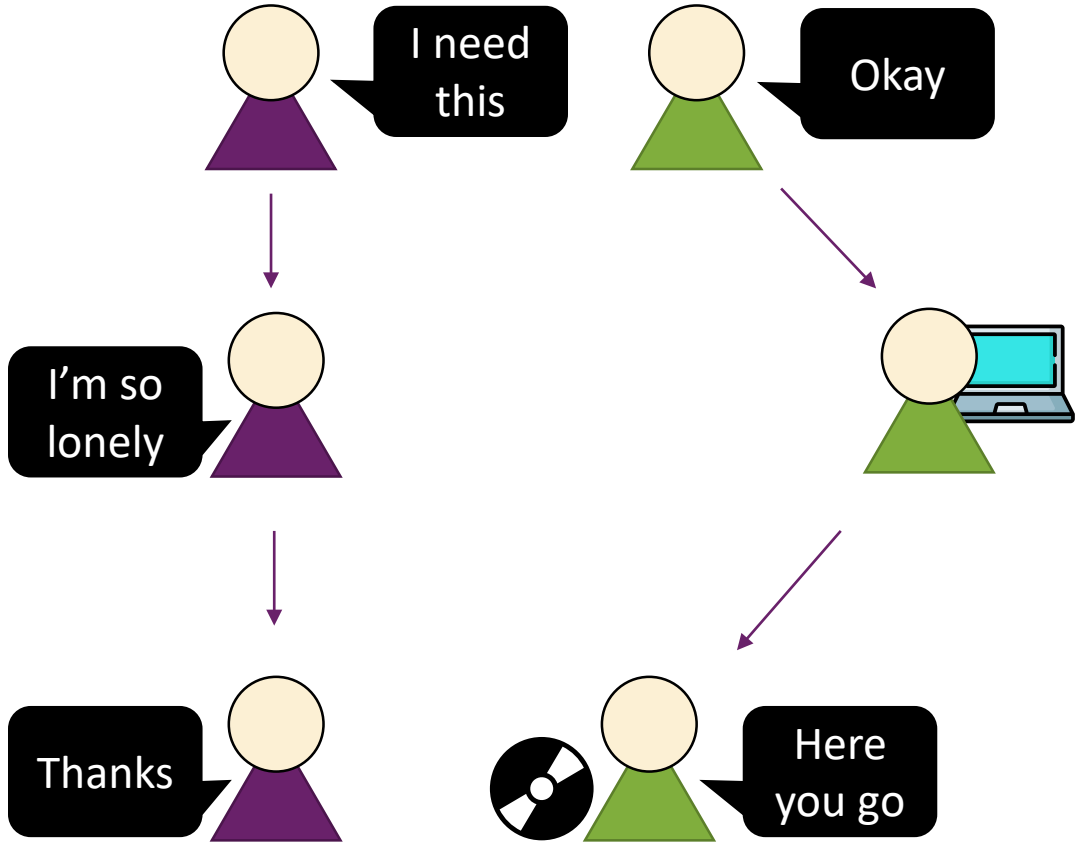
Summary (today)

- What is participatory design?
- What is co-creation?
  - Co-Creation techniques
  - Advantages and Disadvantages of Co-Creation
- What are user profiles/personas?

Traditional design

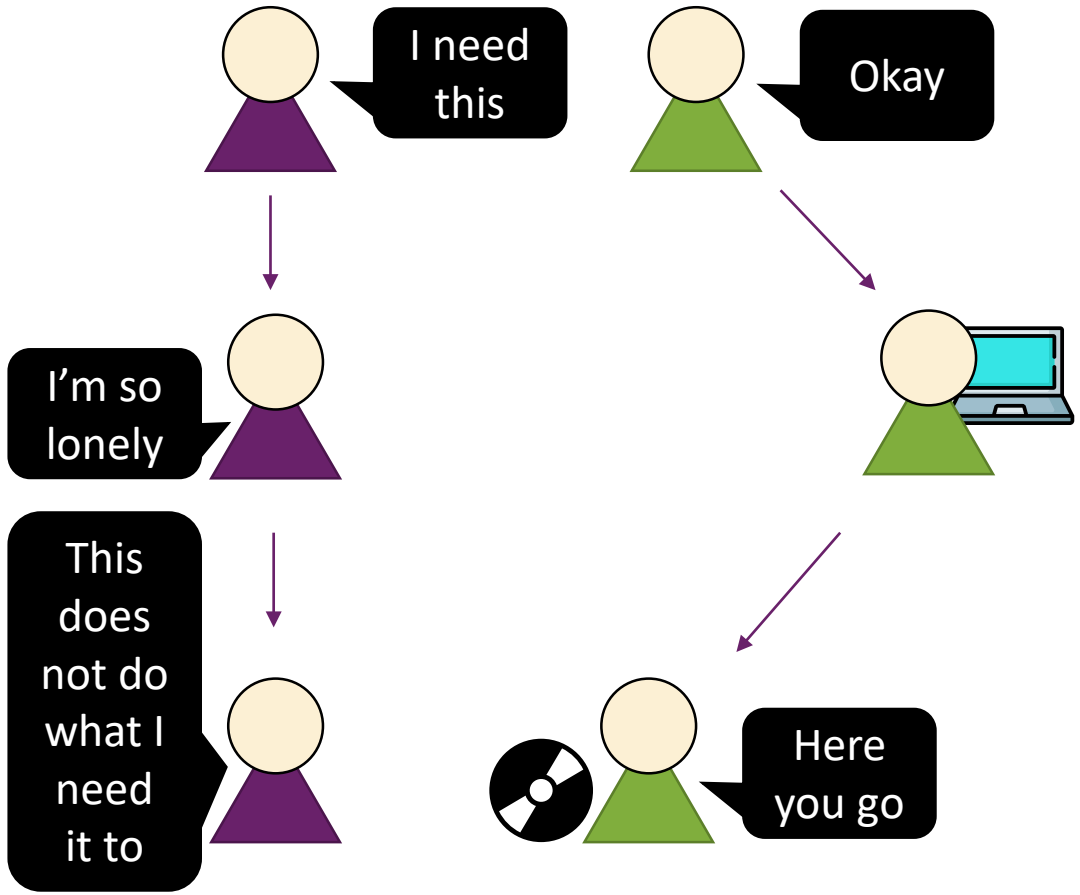
- In traditional software design, the user is consulted only at two points
  - The start of development
  - The end of development

- This is usually fine until…

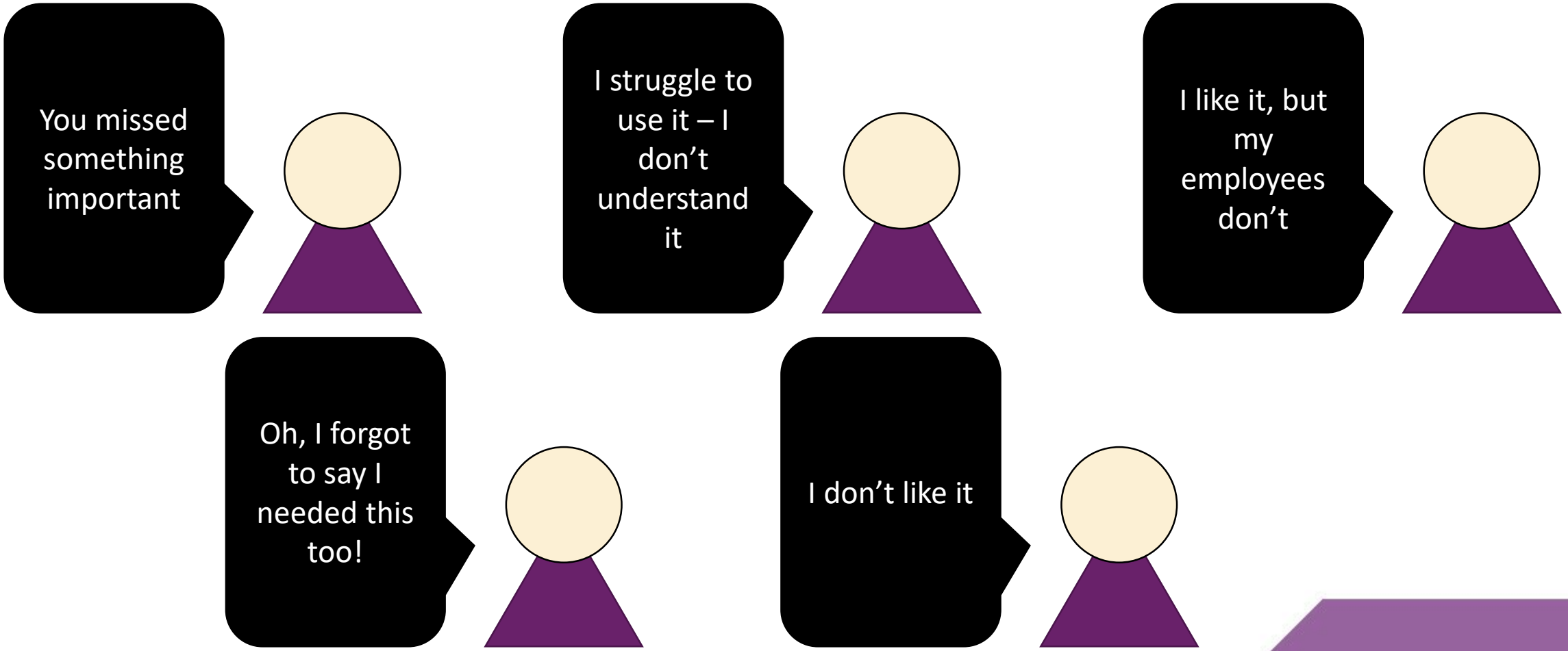


Traditional design

- Or…

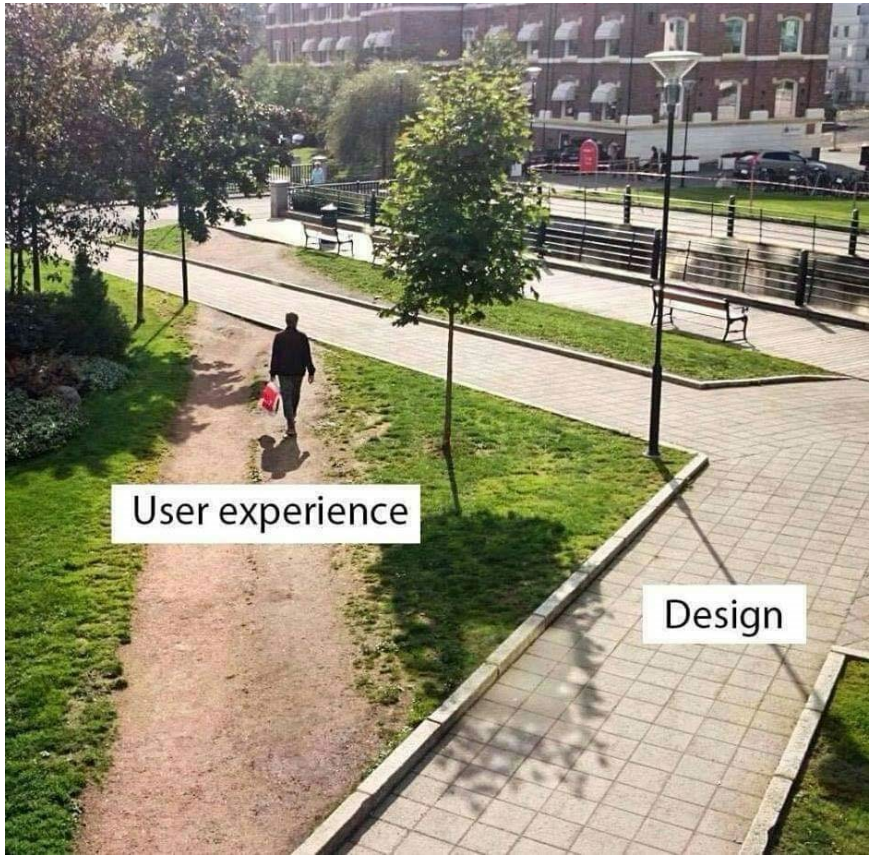


Problems with traditional design

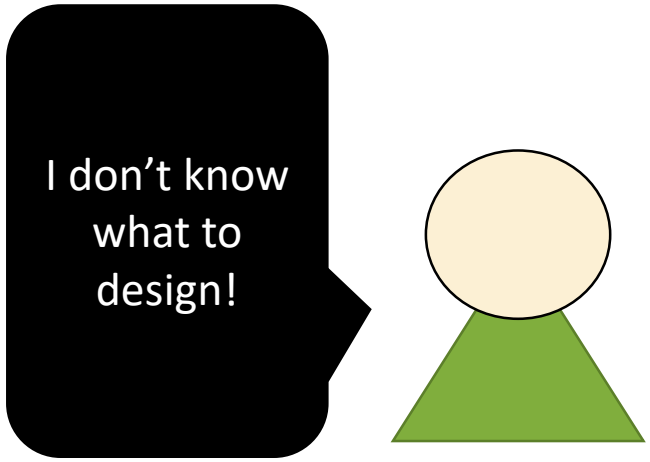


Problems with traditional design

- Misunderstanding of client priorities
- Difficult to keep up with evolving demands
- Maybe only one point of view going into product development
- Client is uninvolved with process, so may not understand end product
- End product may not meet client's personal taste



Now imagine if we add up…



Participatory Design

- An approach to design which actively tries to involve all stakeholders
  - Emphasises user involvement
  - Co-design, co-operative design, etc
- Stakeholders are involved throughout the process
  - Moving away from only two points of contact in traditional approaches
- Try to meet the needs of as many separate user groups as possible
  - Meaning many different potential users are usually involved

Participatory Design Main Principle

Everyone can contribute to design ideas

Principles of Participatory Design (PD)

- Co-operating
- Experimenting
- Contextualising
- Iterating

P of PD – Co-operation

- Stresses two fundamental principles:
  - Egalitarian Principle – Stakeholders are experts and novices in non-overlapping areas, but all deserve equal respect
  - Co-learning Principle – Assumes that a design process is a learning process for both stakeholders and developers

- A third principle may arise:
  - Multi-Voiced – Stakeholders address the same issue from multiple diverse backgrounds

P of PD - Experimentation

- Design should exist somewhere between the real and the possible
  - Sometimes described as ‘between possibilities and current conditions’
- Experimentation is about coming up with new cool stuff while ensuring that it can actually be realised
- To perform experiments, you need to develop prototypes, mock-ups, etc
  - The development of such items (making the design ‘real’ so to speak) is called concretization

P of PD - Contextualisation

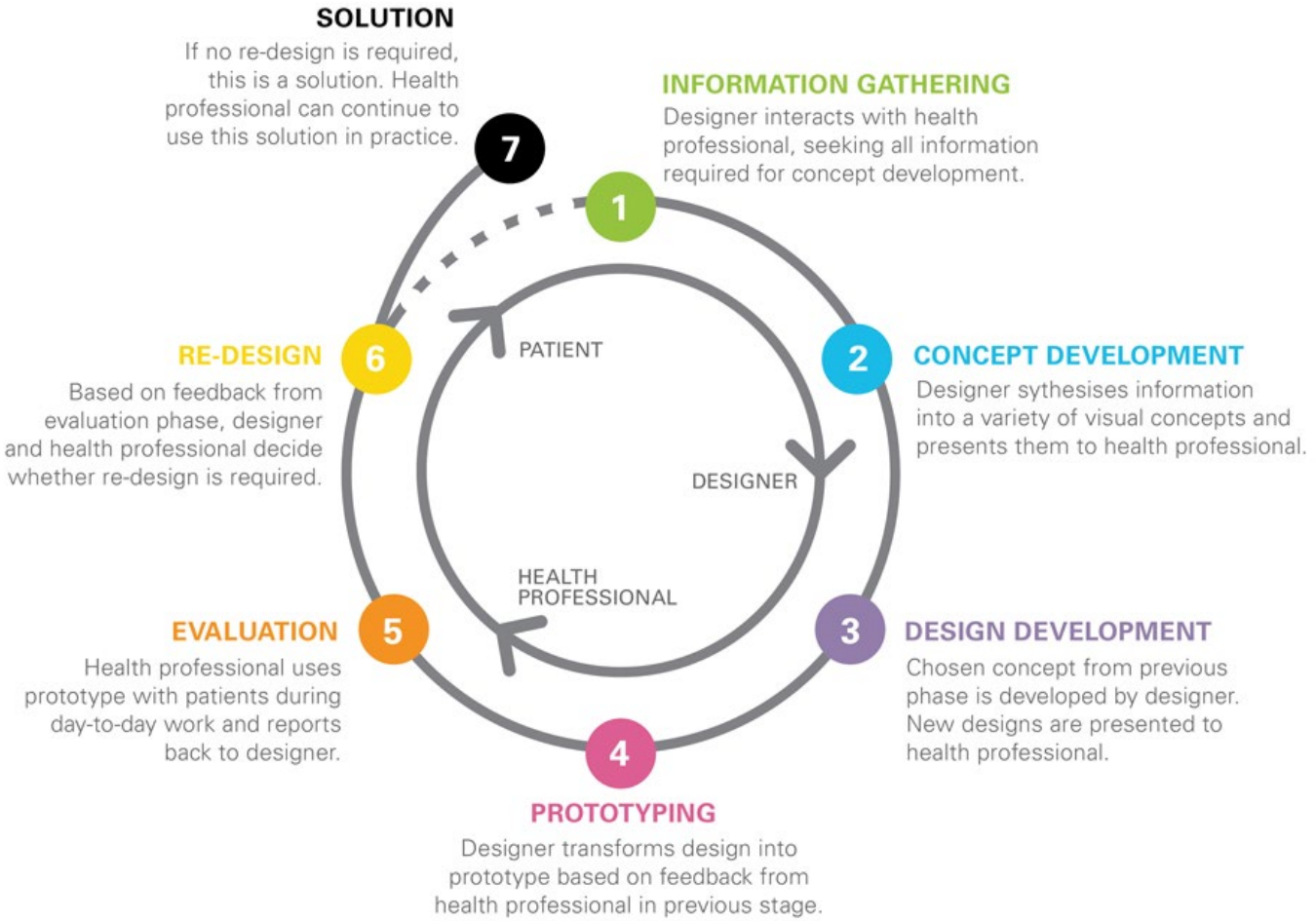
- Generally, PD occurs within the work setting and situation that it is intended to impact.
  - If you're designing software for a bank, the stakeholders should be users of that bank
  - Bank Tellers, Management and (of course) Customers.
  - Financial auditors?

- This gives rise to both social and technical considerations
  - i.e. How honest will an employee be in front of their boss?
  - i.e. How will the developer converse with the users in an understandable manner?

P of PD - Iteration

- PD is usually broken down into sessions
  - Remember, the user is consulted at multiple points, potentially multiple times

- Developers **co-operate** with users to **contextualize** design through **experimentation**
  - This is a repeating cycle



Co-creation

- Participatory design refers to a broad spectrum of design methodologies
  - Basically any design methodology which brings in a user to perform some or all of the design
- One methodology in particular we will be focussing on is co-creation
- Co-creation operates on a reasonably simple premise:
  - People are usually the best experts on their own lives

Co-creation

- In co-creation, users come up with solutions for their own ‘pain’ points, and it’s the developers role to concretize these solutions
  - This **does not** mean simply implementing what the user has said
  - This means being able to develop a solution in line with what they want which is also possible and feasible

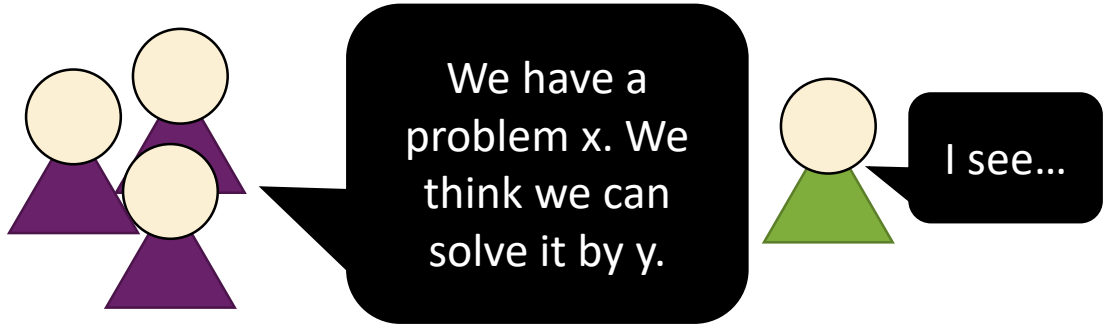
- Users are experts on their own needs – not on software design/implementation
  - It is an important design skill to be able to unify the potential and the possible

Co-creation as participatory design

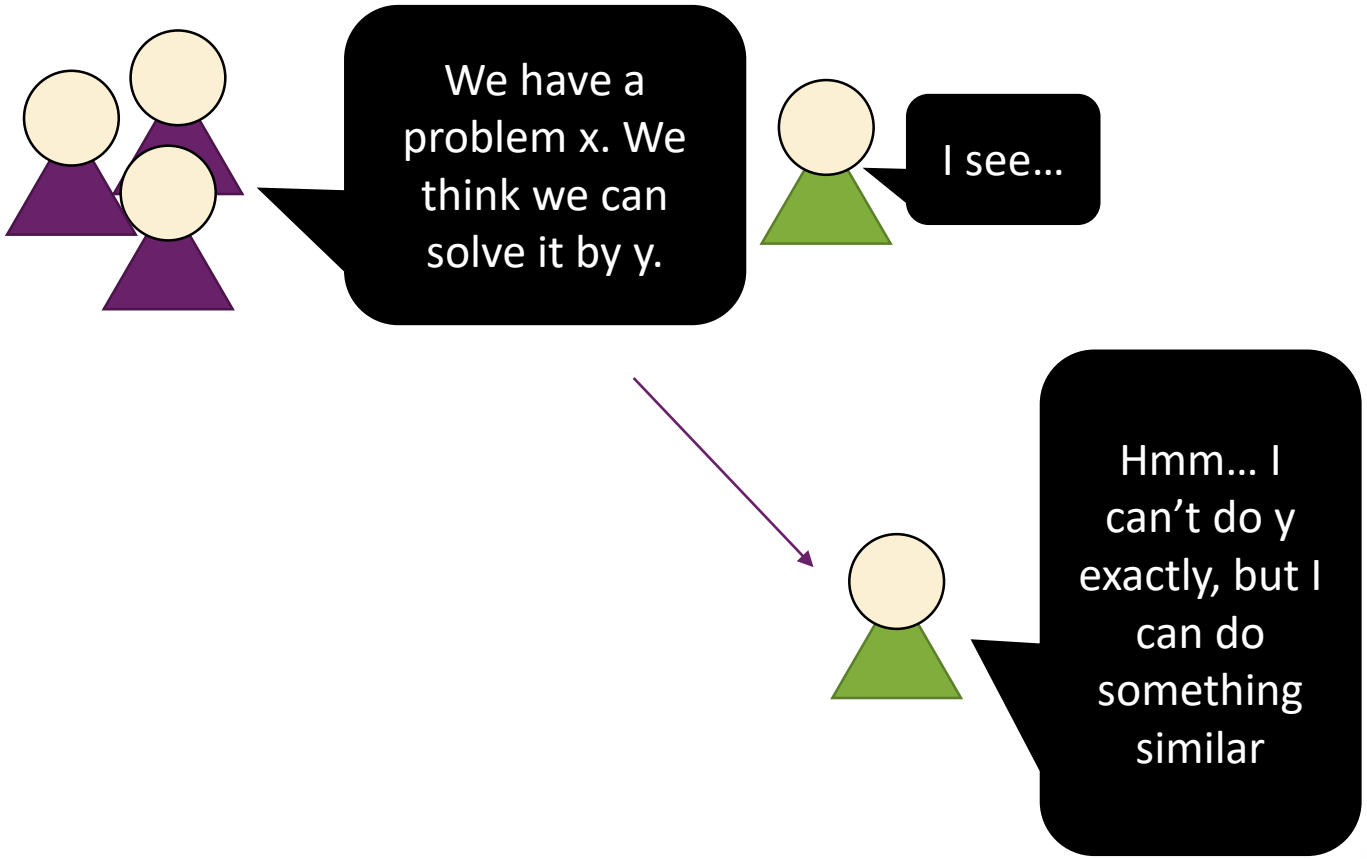
- The principles of participatory design still apply to co-creation

- What sets co-creation apart from other methods is the idea that users come up with their own solutions

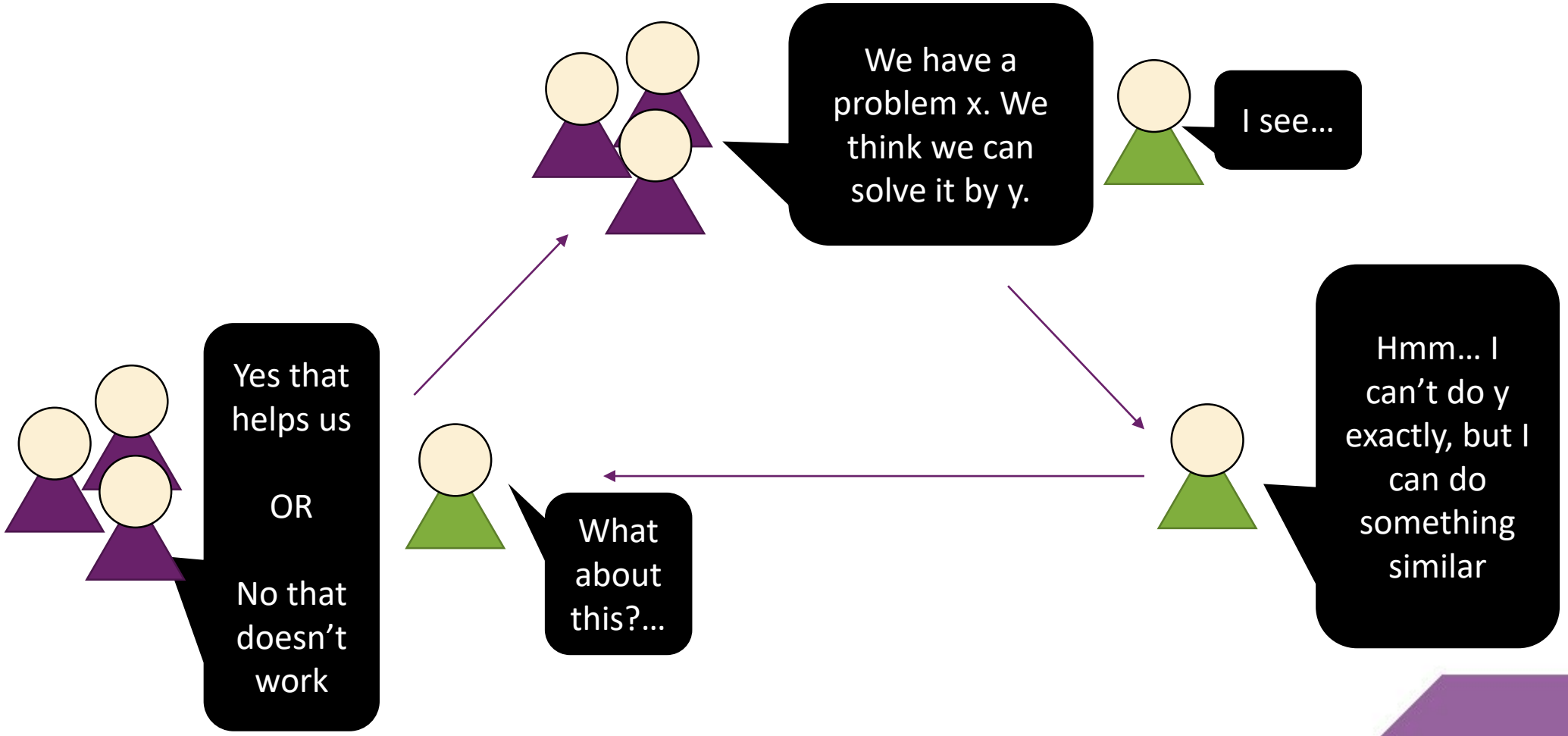
How does co-creation work?



How does Co-creation Work?



How does Co-creation Work?



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Co-Creation (CC) sessions

CC Sessions

- Recruitment
  - Co-creation sessions can only occur after a suitable group of users has been selected
  - This means thinking about suitable stakeholders to include in the session
    - Is this a demographic, or more specific sets of users for example
  - These stakeholders are invited to attend the session
  - Remember to have a backup plan for any stakeholders who cannot attend
    - Particularly important if they are the sole representative of a group

CC Sessions

- Location
  - Remember that co-creation occurs in a physical space
  - It is the developers job to think about where the most suitable space is
  - This means considering the stakeholders who are involved and thinking about a suitable space for them
  - For example, don’t host a session on mobility issues on the top floor of a skyscraper
    - You risk alienating yourself from the start

Fail!

CC Sessions

- Conversation starters
  - Icebreaker techniques, forming a circle with everyone facing one another
- Brainstorming
  - Bringing different stakeholder groups together to work in pairs/groups
- Roleplaying
  - Having the developer or the stakeholder take on different roles
- Rapid Prototyping
  - Building and testing simple low-fidelity models quickly

CC Sessions

- Capturing Feedback
  - Developers should record the session in a structured manner
  - This means taking notes throughout (maybe nominating a specific person to do that)
  - After the session, the developer should co-ordinate the ideas presented by users, potentially make them a bit more realistic
  - They can then be presented to the stakeholders at the next session

Advantages of CC

- Guarantee that the product will resemble something the user actually wants
- Can improve user's image of a company
- Can bring to light new ideas that even domain experts cannot think of
- Can bring in ideas from many stakeholder groups

Disadvantages of CC

- Time and cost – co-creation activities are costly and expensive
- Recruitment can be challenging
- Users can have unrealistic expectations and solutions to problems
- There is danger of over-fitting a product so that user groups not represented in your co-creation groups become alienated

Moral and Ethical Aspects of PD and CC

- Participatory design heavily involves users
  - It is important therefore that it is conducted in a moral and ethical manner
- One example of this is consent
  - Any data collection from users requires appropriate consent
- Another example is consideration of individual needs
  - Often these methodologies are applied to users with accessibility needs
  - Mindfulness, consideration and common courtesy are important

Other methods

Other methods involving users

- Survey
- Market study
- Brainstorming sessions
- Card sorting

Why not involve users?

- Users might not want to be involved
  - Too busy
  - Too important
  - Uninterested in the product
  - Opposed to using the product
- Might not be able to work with users
  - Can’t identify them
  - Don’t have access to them
  - Don’t have access to them right now

Over-involving users can cause problems

- Any use of employees' time costs money
- Product might negatively affect users' jobs
- Product can become overly based on a user's peculiar preferences
- Users don't understand the development process
  - Misunderstanding of what can be done when
  - Ideas may occur at the end after learning, not at the beginning when they are useful
- Less innovation observed when users highly involved

Other methods NOT (directly) involving users

- Research
- Market Study
- Competitors' Study
- "Borrowing" ideas

User Profiles/Personas

User profiles/personas

- Fictional descriptions of typical users
- Not direct descriptions of one real user but synthesis of several
- Need to be realistic to be useful
  - Direct experience
  - Market research
  - User interviews, focus groups etc.
- Allow us to imagine what a user wants and how they would perceive and interact with the system

What should personas include?

- Personas need to be believable as real people
- Need detail on the issues we are interested in
- Need personal details as well
  - We need to believe in them as people and be able to make guesses about information that is not included in the persona
- Job descriptions are not personas

- Personal information - Name, age, gender, nationality etc.
- Photo
- Personality - Motivations, needs, fears, aspirations
- Work - Job, work responsibilities, tasks, activities
- Home life – family, hobbies, responsibilities
- Technology - Computer skills, knowledge, abilities, attitudes
- Accessibility issues

http://www.slideshare.net/toddwarfel/data-driven-personas

Example (1)

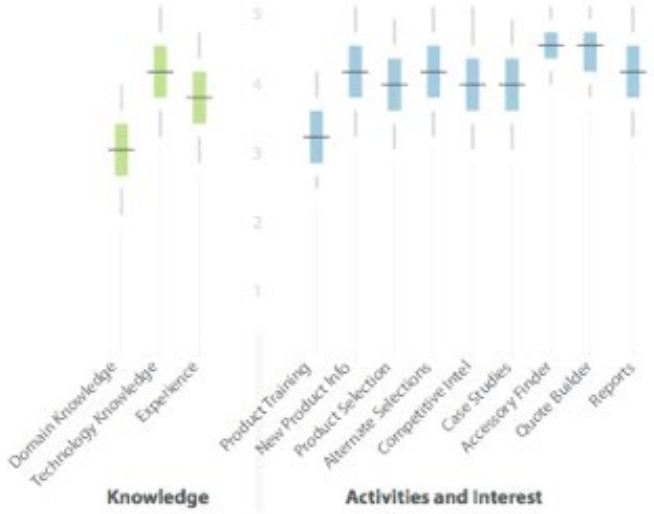
The Moderately Seasoned Professional

Michael

"I'd like to see a good, better, best."

MICHAEL HAS BEEN IN SALES for YEARS AND HAS BEEN SELLING AND OTHER products for most of them. he's pretty comfortable with the Symbol products and isn't that interested in basic product info, but finds himself wondering if there's a better alternative than the product he's suggesting. It's a challenge keeping up to date on all the product info from Symbol and the other lines he sells. he'd love to see something that recommends a good, better, and best option when they're available as well as showing him where the particular model stacks up against other competitive products.

The right tool for Michael helps him pick the best product while recommending other alternatives. It also has case studies with examples of how other more seasoned salespeople have been able to upsell in similar environments and applications. Accessories and add-on services for Symbol scanners are a must. And if it is a frontend for Solution Builder that would be a huge bonus.



AGE: 42

OCCUPATION: regional Sales

Primary Use
- Case studies
- Alternate product selections (good, better, best)
- Accessory finder
- Product info for new products or product refresh
- As a frontend to Solution Builder

Goals
- Pick the right product and find better alternatives.
- Keep up-to-date on competitive intelligence.
- Increase sales volume.
- Increase accessory and add-on sales.
- Close more deals faster.

Influencers
- Easy-to-use
- Speed
- New product info
- Ability to run reports on open vs. closed quotes
- Ability to generate quotes

Frustrations & Pain Points
- having multiple usernames and passwords. he already has several for the different applications he uses at work and email – he doesn't need another one.
- A tool that leaves him in the dark

http://www.viget.com/advance/why-personas-are-valuable/

Example (2)

Busy Student

Doohickee Company, Inc.

Jack Williams

Undergraduate Student

Quick Stats

Age: 21
Occupation: Student
Location: Miami, FL
Status: Single

About Jack

Jack is the an undergraduate student at the University of Miami (Florida) where he's studying international business. He holds a part-time job plus is preparing for a summer internship and needs a doohickee to help him study during his busiest times. Maximizing his efficiency will help Jack graduate a semester early so he can jump into the real-world and score his dream job faster.

User Behavior

Goal's:
Find a credible doohickee
Take a demo of the doohickee to assess its affectiveness
Buy a doohickee

Actions:
Read about Doohickee Company's core products
Scope price and cost-effectiveness
Take a demo on the Doohickee Company's site
Read reviews
Purchase the doohickee via PayPal

Why use them?

- Personas are humanising
  - They put a face on otherwise abstract concerns
- Personas are focusing
  - They allow us to concentrate on dealing with a prospective user
- Personas highlight end goals
  - They tell us what the user wants to accomplish
- They allow consensus to emerge around design
  - We all know the user we're pitching our product for
- People won't read the results of massive data-gathering exercises (or will cherry pick from them)
  - Personas summarise this data in an intuitive and accessible way

Issues with personas

- Can be time-consuming and expensive to produce
  - Just making up personas is pointless – they need to reflect our users
  - Though we might be able to reuse them on future products
- Needs buy-in from the whole team
  - Personas can have a lot of detail – people need to read and consider this
- Need a good understanding of who the users will be
  - If we make bad assumptions about the users, we could design the wrong thing
  - Even worse, we may design personas that reflect us, not the users
- Risks stereotyping and might not be useful in understanding design needs
  - Assume one of our personas is sight impaired. Do our designers really understand what that means and what the appropriate design implications are?

Persona groups

- Usually better to have a group of personas rather than just one
  - Are all your users really the same?
- Too many – there will be overlap or some will represent small segments of the user base
- Too few – they will be overly general or fail to represent some groups
- Depends on the context, but about 3-4 is usually reasonable

Designing personas

- Create lots and lots
  - Don’t spend too much time creating a perfect persona. Your first idea will usually be rubbish. Create loads in a brainstorming session. Variety is good.
  - (This is a very good idea for designing anything!)
- Group the personas by similarity
  - Similar means similar people trying to achieve similar goals, not similar job description
- Work out what your key groups are, and discard outliers
- Synthesise each group into a single persona
  - Take the best bits of different personas
  - Make sure that your new persona is still coherent and believable