COMP1710/6780

Web Development and Design

Week 3 8-12 August 2022

User Requirements and Usability
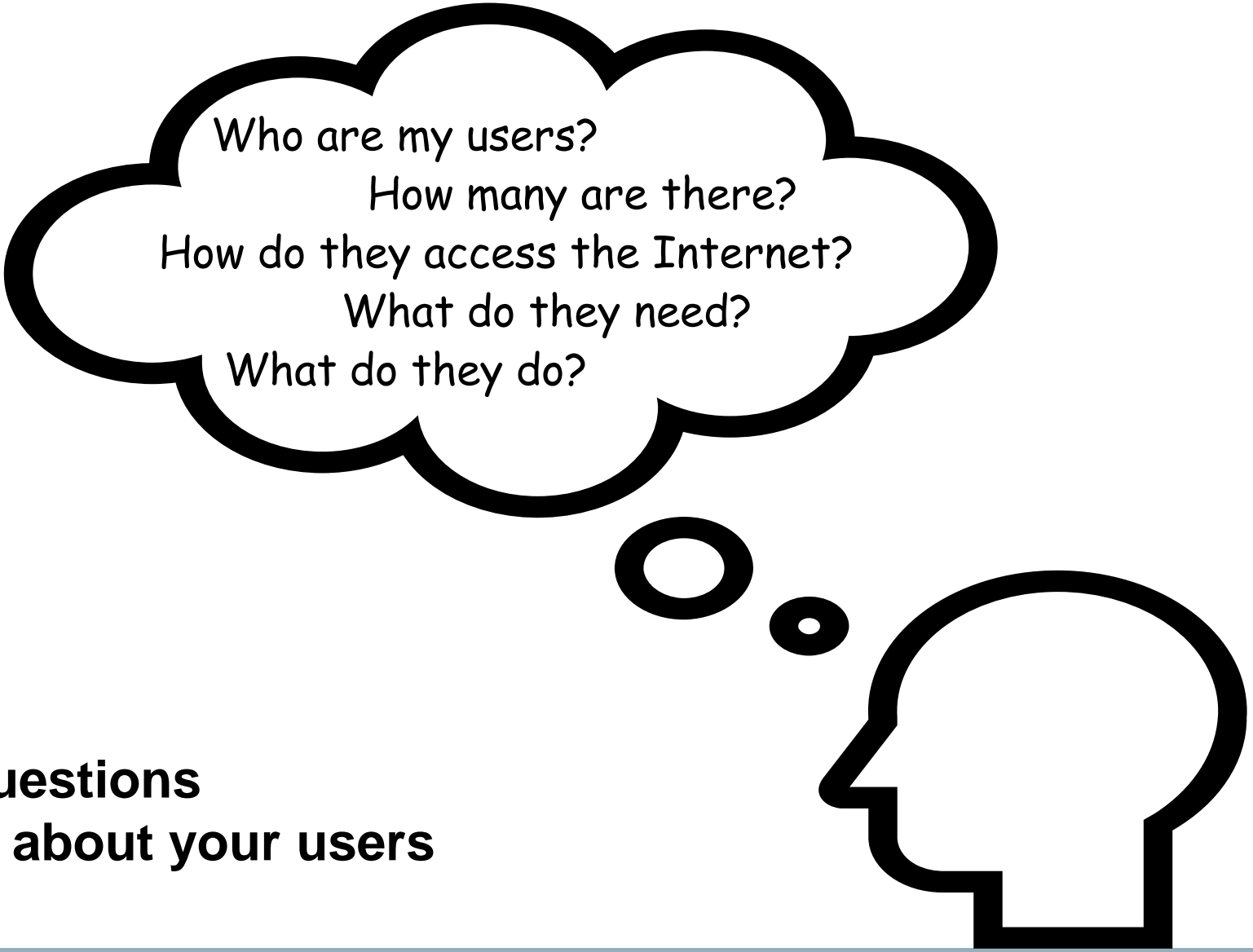
User requirements arise the moment the decision is taken to create a website.

BUT … managing input from different users and stakeholders is like herding cats: very difficult!

You need a PLAN to capture these requirements and resolve conflicting needs.

Who are my users?

How many are there?

How do they access the Internet?

What do they need?

What do they do?

**5 Key questions
to know about your users**

Who are my users?

Identify who, specifically, they are
   age range, gender, profession, education, cultural factors,
   income, marital status, etc.

Build a picture of your typical user(s); consider creating a
sample persona

Remember, you are not your user!

"You are not your audience. You don't see things like they do, know what they know, want what they want, or work how they work."

Mike Kuniavsky, author of Observing the User Experience

Sample persona (for an equestrian shopping website): Happy Hacker Hannah

Hannah is 38, married and has 2 young children. She lives with her family in a semi-detached house in the suburbs and works works full-time in an office in the city.

Hannah keeps her horse, Barney on a small DIY yard, which is about 5 miles from her house, and tends to him twice a day, before and after work.

Barney is a 16.1hh, 15 year old Irish Draught X who used to compete regularly in his younger years. Hannah has owned Barney for 5 years but uses him solely for hacking, and the occasional local show.

Hannah rides at the weekends and occasionally in the evenings during summer if she has time after work. She does very little schooling with Barney as she doesn't have the use of a school but likes to jump the cross country jumps, which have been set up on a couple of her hacking routes.

When buying things for Barney, functionality and affordability are very important to Hannah. She tends to use things until they are no longer repairable before buying new.

She chooses things that are built to last and doesn't mind spending a little more if she knows that the quality is good, and that it will last her a very long time. Hannah is not interested in the latest fashions and trends, and tends to stick to traditional colours.

How many are there?

If you don't have any idea how many users you will have, you won't know how to predict:

Predicted costs to create and maintain your site
Predicted revenue (if you are building a commercial site)
Specifications for the backend

But how do you figure out this number?

It is easy to overestimate – not everyone will be as excited about your subject as you, and of the ones that are, they have a lot of other sites competing for their attention.

Apply what logic you can from what you know about your users.

How many are there?
But how do you figure out this number?

For example, if your target audience is caravanning retirees in Australia, you could say

Fact: 27 million Australians, of which

Fact: 4.2 million are aged 65 and older

Fact: About 650,000 registered caravans

Guess: About 2/3 of caravans are owned by older Australians = ~ 430,000

Guess: My site is wildly popular and I get 10% of my target audience

= user community of about 43,000 people

Australian National University

How do they access the Internet?

How long have they been online?

How frequently do they go online and how long do they stay online in a typical session?

Where do they access the Internet from? Work? Home? School? The park?

What part of the day/week/year are they online?

Do they have good bandwidth or poor bandwidth?

What type of computer? Newer? Older?

What browser do they use?

What monitor? Three desktop monitors or a smartphone screen?

What do they need?

This is a very important question. If your users have a real need, and your site solves this need for them, they will be attracted to it and return to it.

Three ways to figure this out (use all of them)

Having worked out who they are, **consider** what their interests, needs, 'pain points,' affordances are.

Watch what they do – what do they visit on your site? How long do they stay, what's popular, what's not?

Asking users what they think – focus groups, short polls, longer surveys. But keep in mind that people don't always do/think what they say they do/think.

What do they do?

This is really the most important question. You want your users to interact with your website in such a way that you or the organisation you are building the website for receives a return on their investment.

How to understand user behaviour

Traffic analysis – can tell you a lot about how the user arrived at your site, how long they stayed, where they clicked etc.

Usability testing – your chance to interact with people using your site. You can observe what they do, when they look confused, what they explore, etc. And importantly, you can ask them questions about their behaviour and choices.

Once you have feedback from your users, you can develop your user requirements.

Specific – if the requirement is vague, it isn't well thought out yet

Singular (don't have two different requirements fused together)

Purposeful – why is it needed?and not conjugate two distinct requirements

Complete – the requirement should be standalone (not dependent on other statements of requirement to be understood)
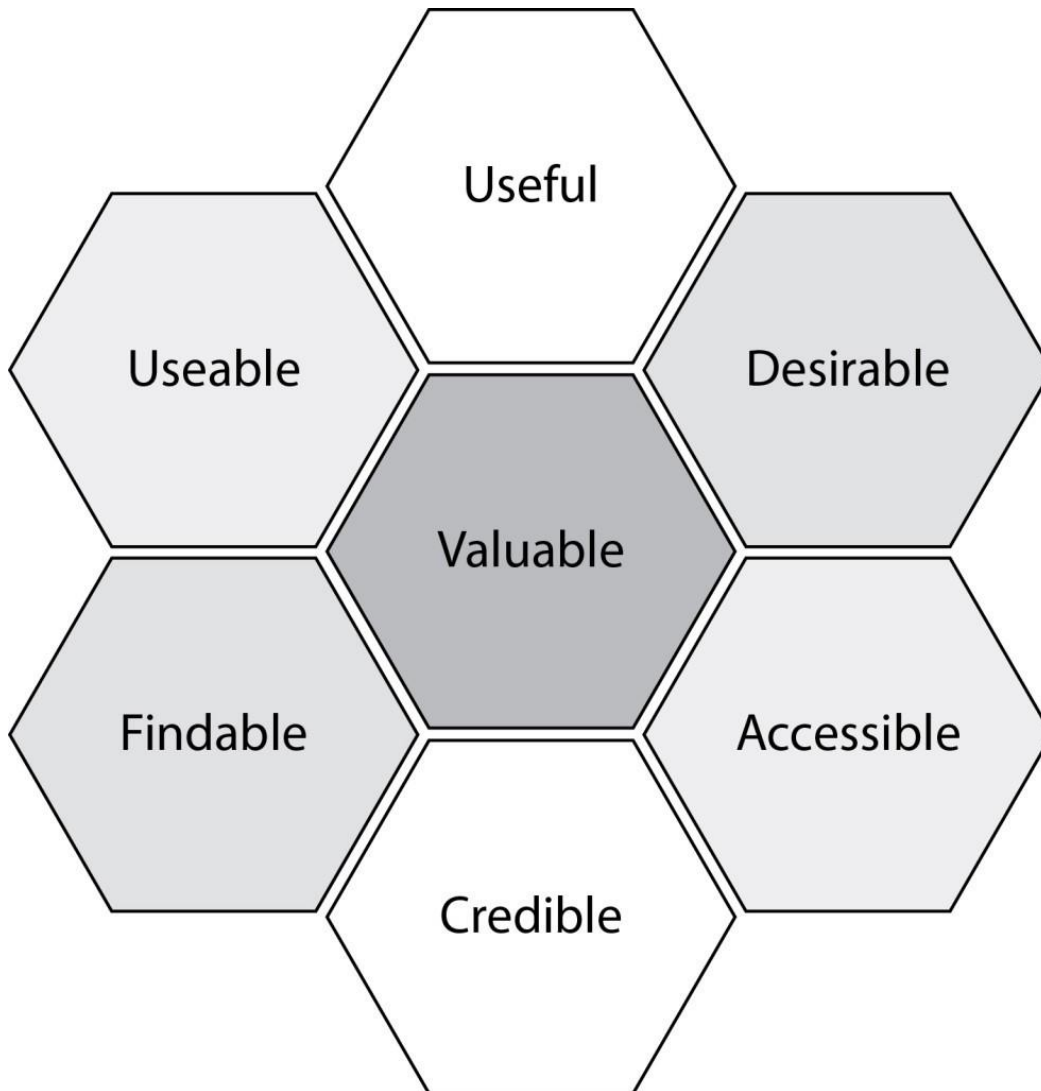
Consistent with the goals of the proposed website

Actionable

Prioritised in importance

**Testable**

Clear connection to project success

## Peter Morville's Usability Honeycomb

Peter Morville is an experienced designer and information architect who has been working in this field since 1994. He has held positions at top companies like Google and Gopher.

Morville and Sullenger (2010) Ambient Findability: Libraries, Serials, and the Internet of Things and https://danewesolko.medium.com/peter-morvilles-user-experience-honeycomb-904c383b6886

Usable: Simple and easy to use. Designed in a way that is familiar and easy to understand. The learning curve a user must go through should be as short and painless as possible.
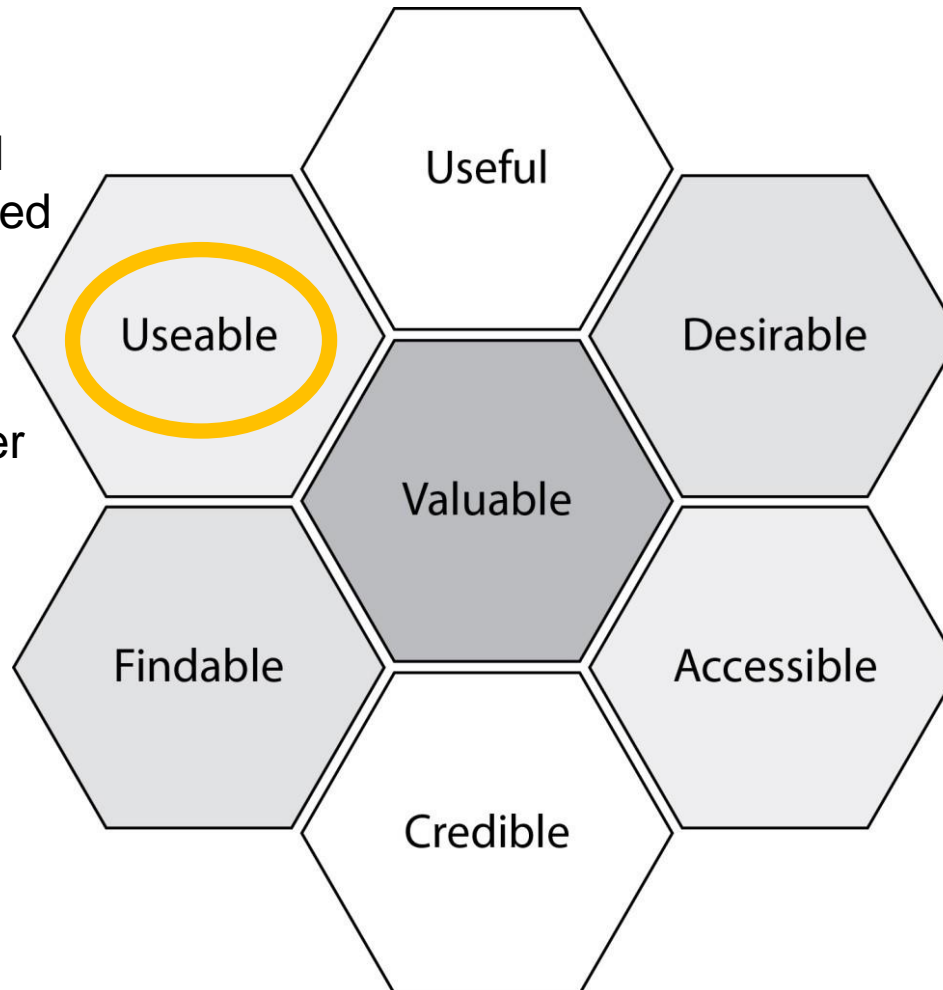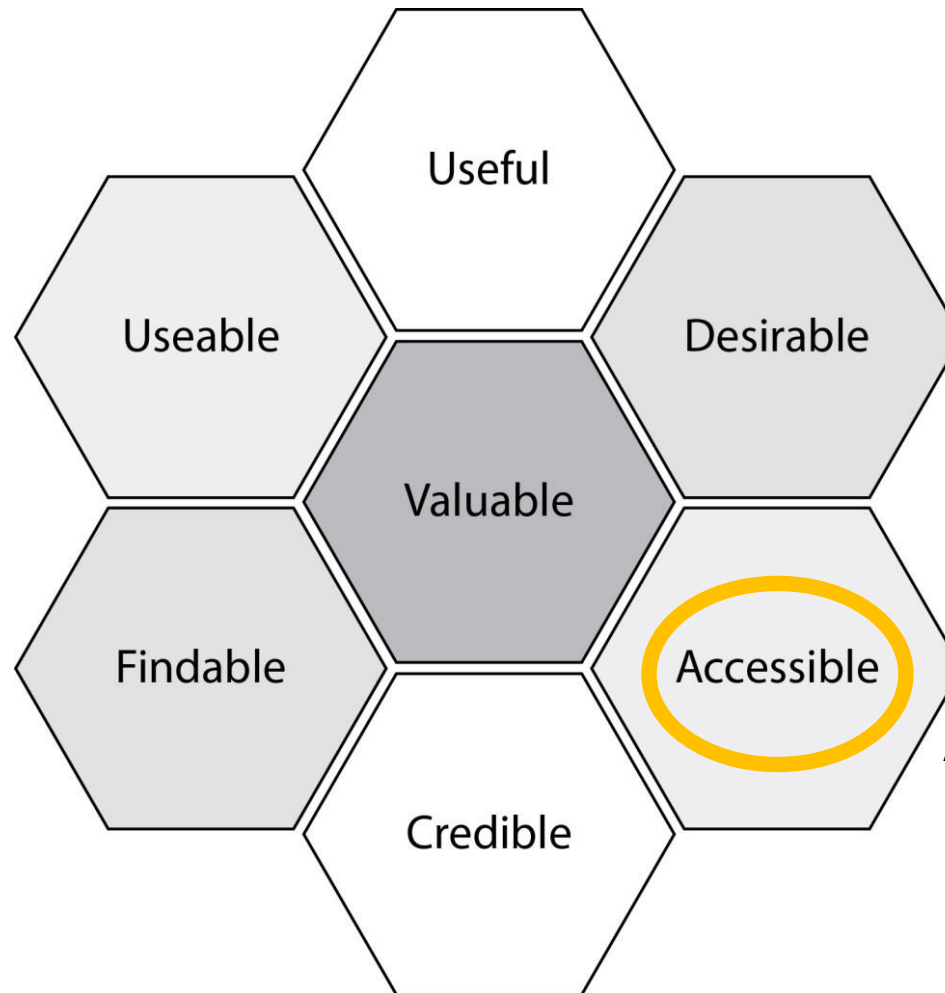
Useful: If the product or service is not useful or fulfilling user's wants or needs then there is no real purpose for the product itself.
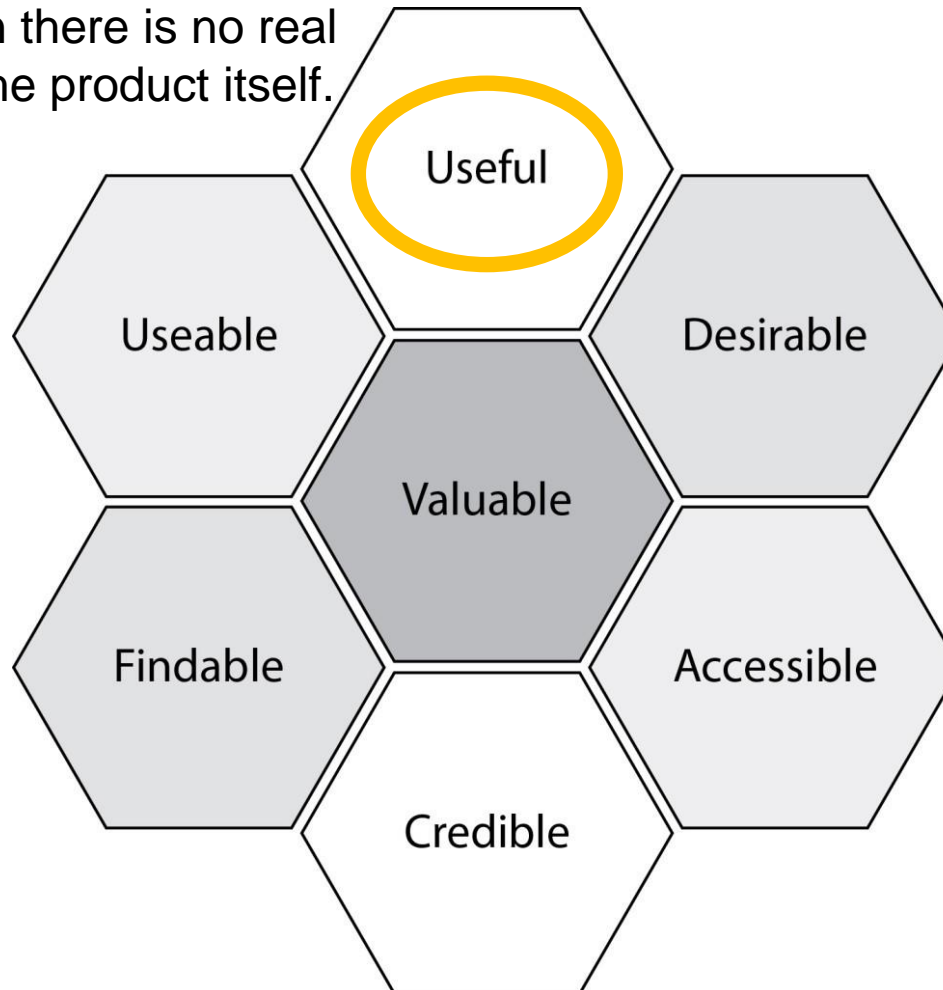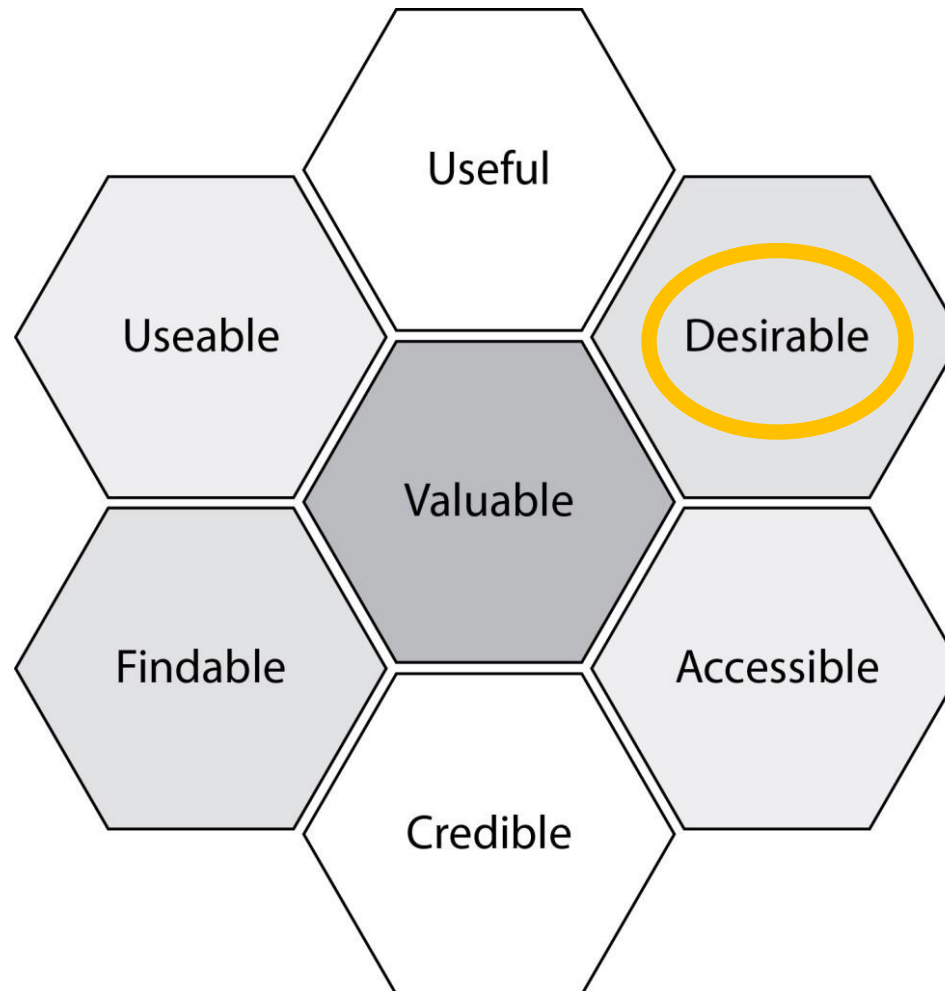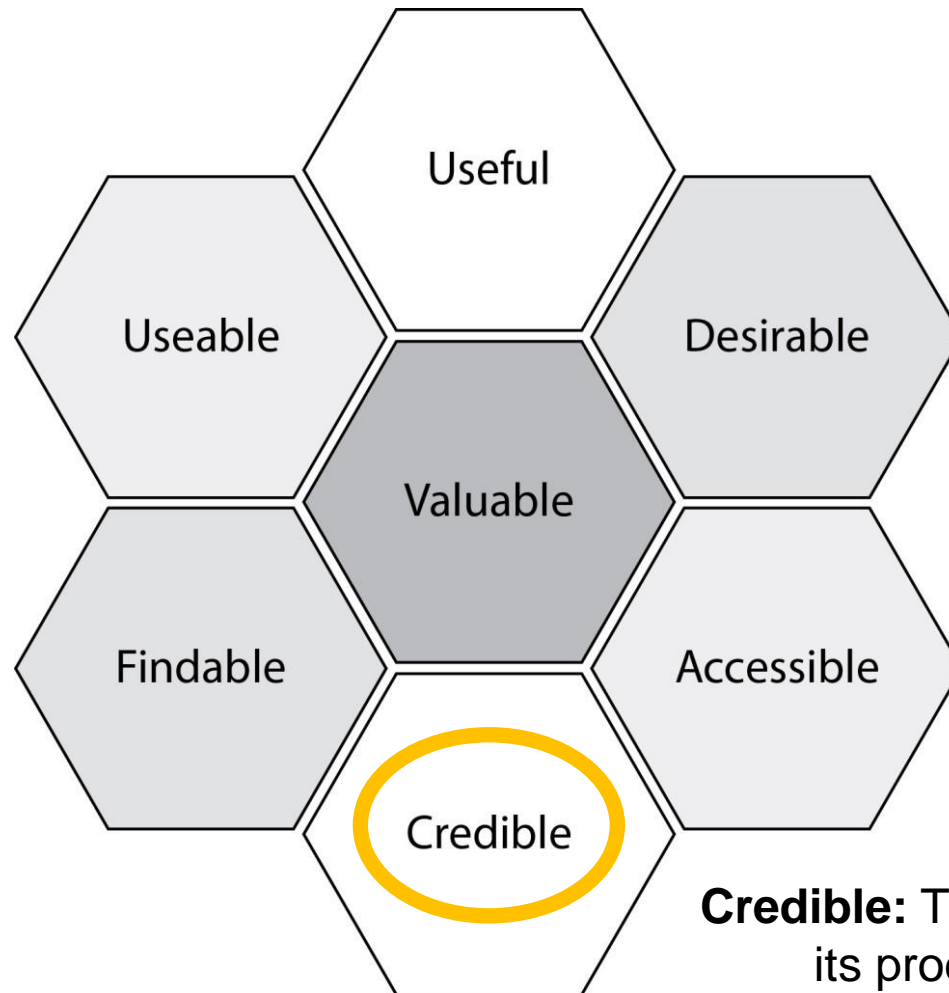
Desirable: The visual aesthetics need to be attractive and easy to translate. Design should be minimal and to the point.
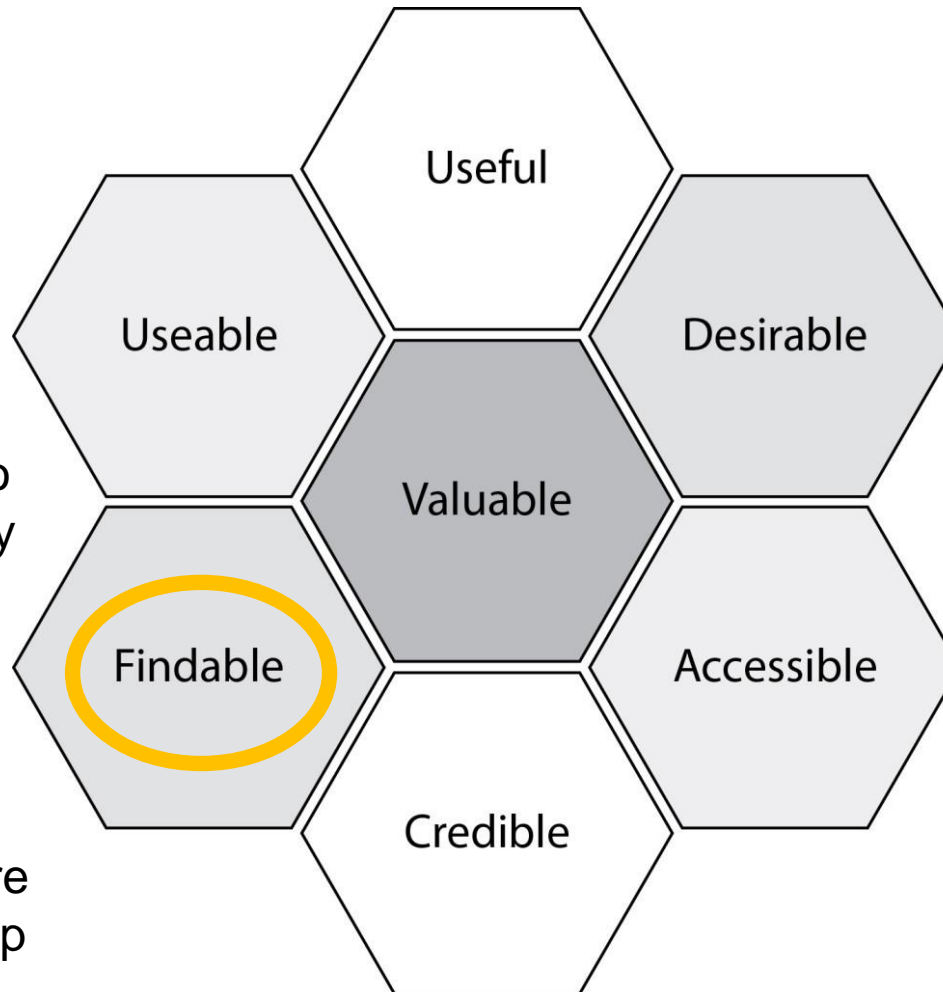
Accessible: Designed so that even users with a disabilities can have the same user experience as others.
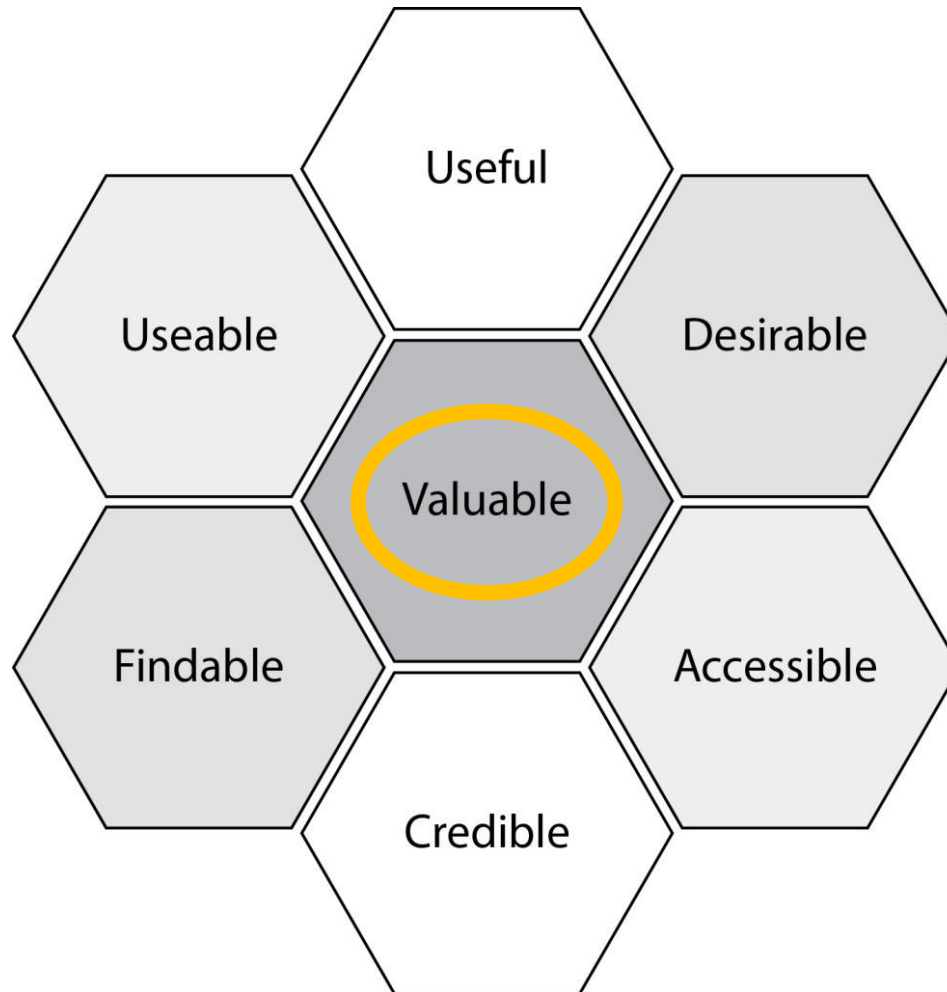
Credible: The company and its products or services need to be trustworthy.

Findable:
Information needs to be findable and easy to navigate. If the user has a problem they should be able to quickly find a solution. The navigational structure should also be set up in a way that makes sense.

Have fun in the labs and…

Remember to submit your topic

Start assembling the content you think you'll want to use

Start your website!

Don't forget to complete MOOC 3 in the labs or in your own time but do complete them and remember the quizlets are part of your marks – this week they close on 14th August 11:55pm

… see you tomorrow!