

Doing Research

A practical guide

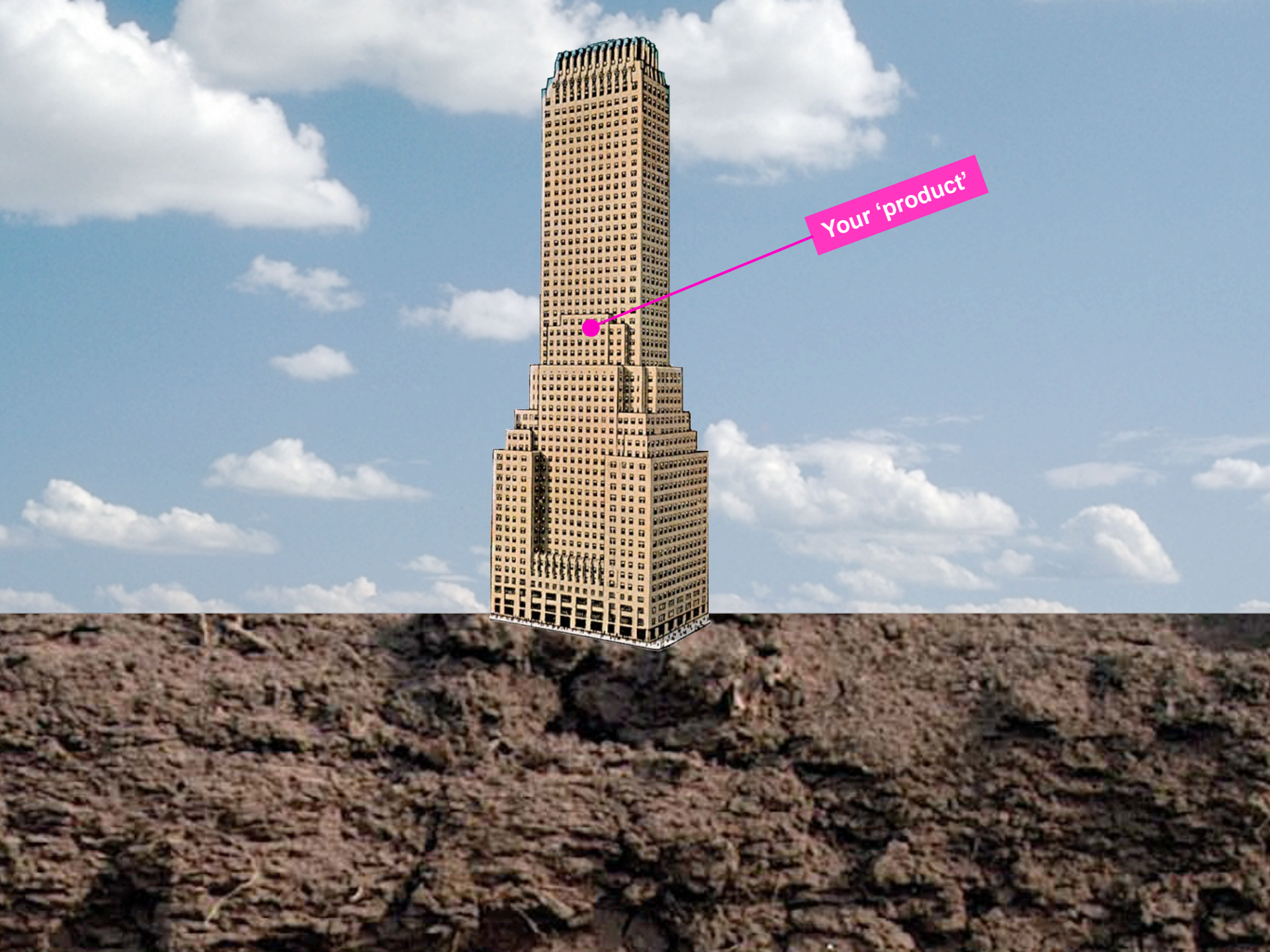
Bas Leurs

17 november 2009

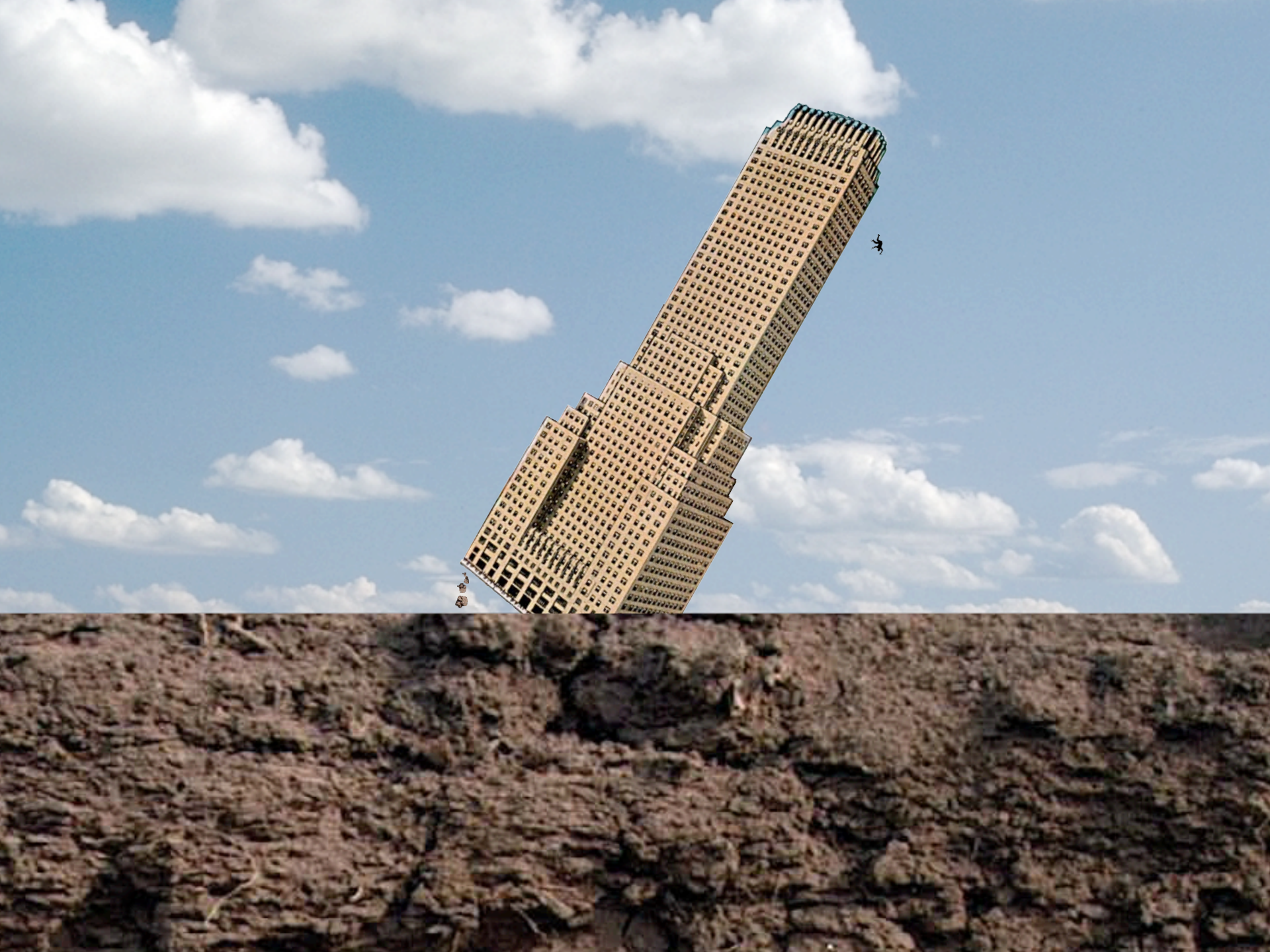


**Why should you do
research anyway?**

Because the teacher told you so?



Your 'product'



**Your product needs
a solid foundation
(i.e. research)**

**You have to do research to
make better products for the
user / targetgroup**

Not to make your teachers happy

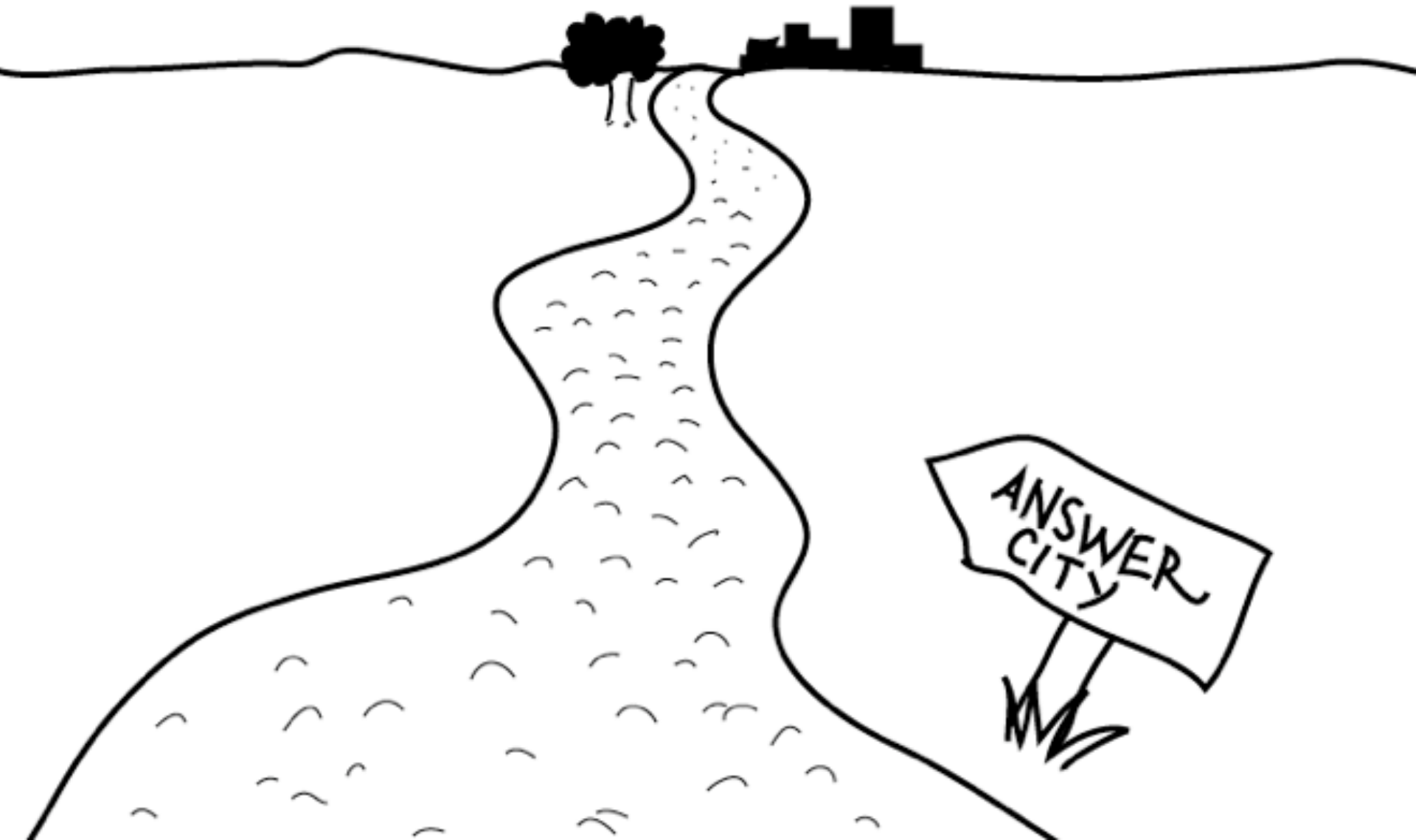


Your 'product'

Research

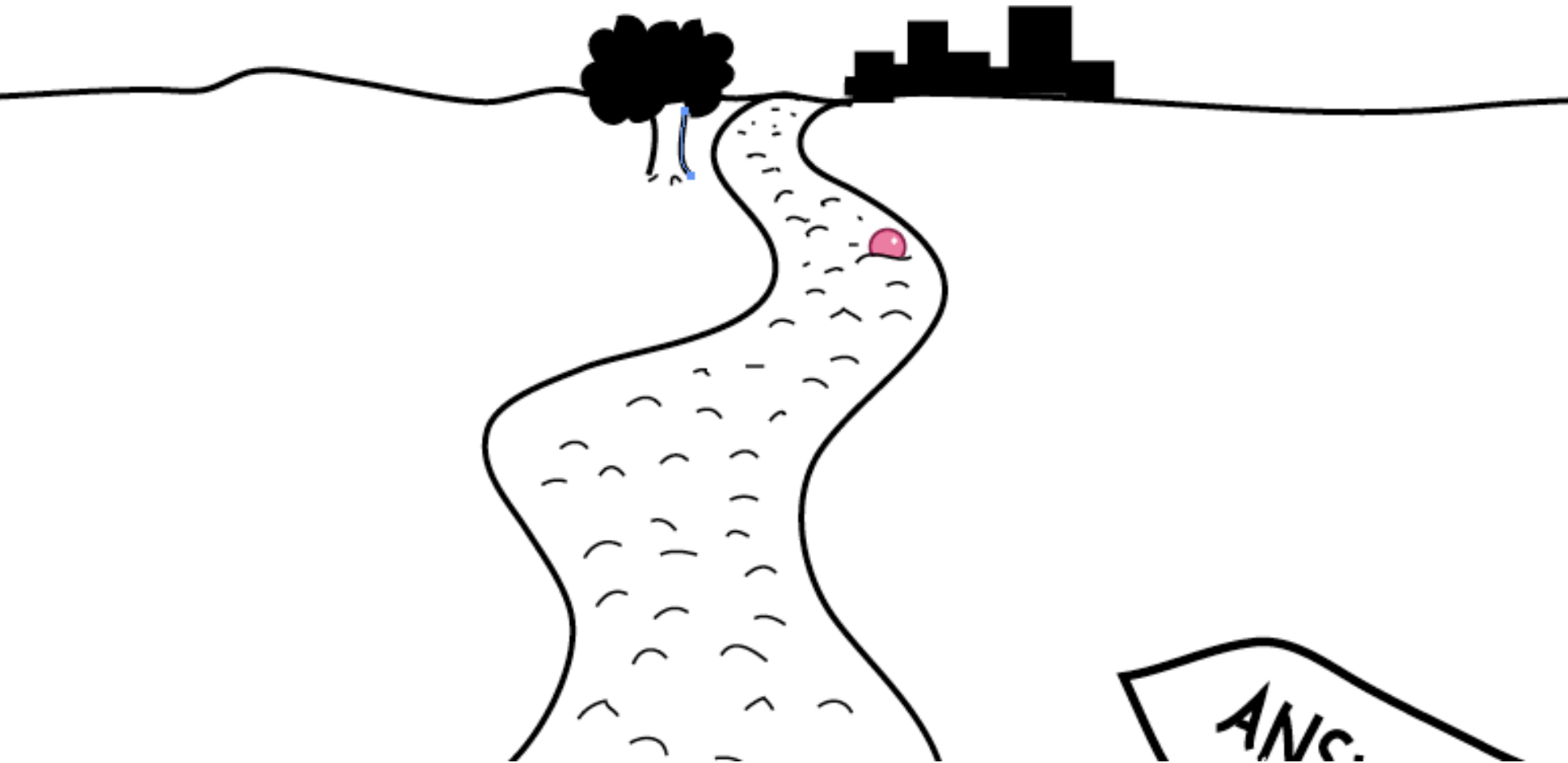
My idea of research...

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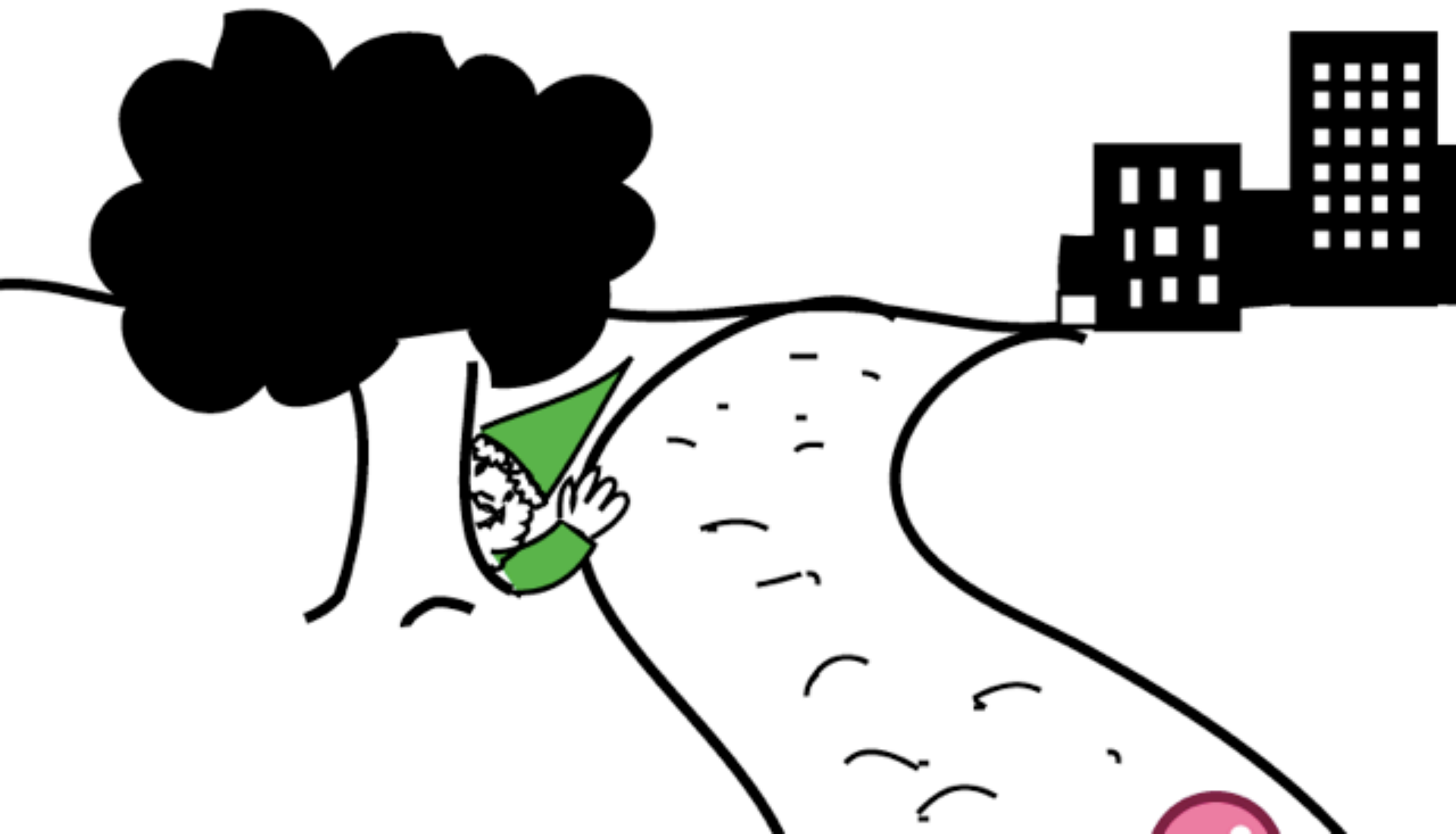
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My idea of research...

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Ok, enough about pearls an pebbles

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A definition of research

A possible definition

Research is an **organized**
and **systematic** way of
finding **answers** to
questions.

Without a question, research has no focus, drive or purpose

The first tip! And best tip I can give!

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Question everything!

Questioning everything is a
must-do habit for designers,
marketers and developers!

It's a matter of attitude...

Why asking why, who, where, when, what?

Asking why, is a powerful technique to gain insights

Example: Developing a community for a travel agency

Why do people travel?

Why do people visit foreign countries?

Why do people travel in groups, with their family, or alone?

Why do people take pictures of specific locations (like the Eiffel Tower)

Why do people want to share their travel experiences, with whom (friends, family, ...)

Who's the target group? Why is this target group interesting?

What do people do when they are on a holiday?

Where do they go to? Why do they go there?

What kind of transportation do they choose, and why?

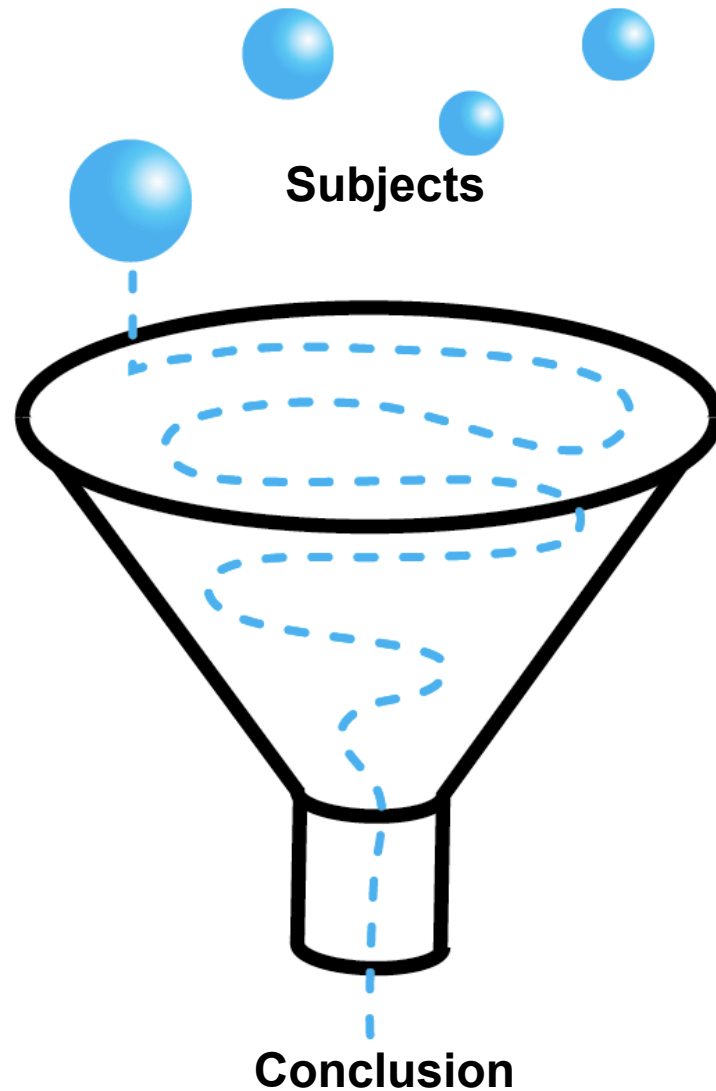
Asking why, is not just what philosophers do, it's also what great designers, marketers and developers do!



The research process

The fuzzy process

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Tip! First start with exploring the subject a bit, before you phrase the research-question.

In the beginning, try to read as many articles and books as possible to explore the subject

You'll probably feel like drowning here (information overload)

Refining and redefining your research questions takes time and effort

Assembling the bits and pieces of information

Luckily...

Luckily there is
the

Big6

The research process

Step by step

The Big6

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1

Defining the question

Define the information problem / Identify information needed
What's the main question? What are the subquestions?

2

Information Seeking Strategies

Determine the range of possible sources
Select the best sources

3

Locate and access the information

Locate sources (intellectually and physically)
Find information within sources (references)

4

Getting the information

Extract the information from a source (books, websites, users, experts etc):
read, listen, observe

5

Putting it all together

Organize the information which you obtained from multiple sources
Present the information

6

Evaluation

Judge the answers
Did the information lead to an answer of the question?

If not, start with step 1 again
and refine or redefine your
question

Hmmmm...

**Something about
experiences...**

Turn 'something about' into a question

Second attempt...

How to design a travel experience?

Do you think the answer will be useful?

You'll probably get the answer 'It depends...'

Third attempt...

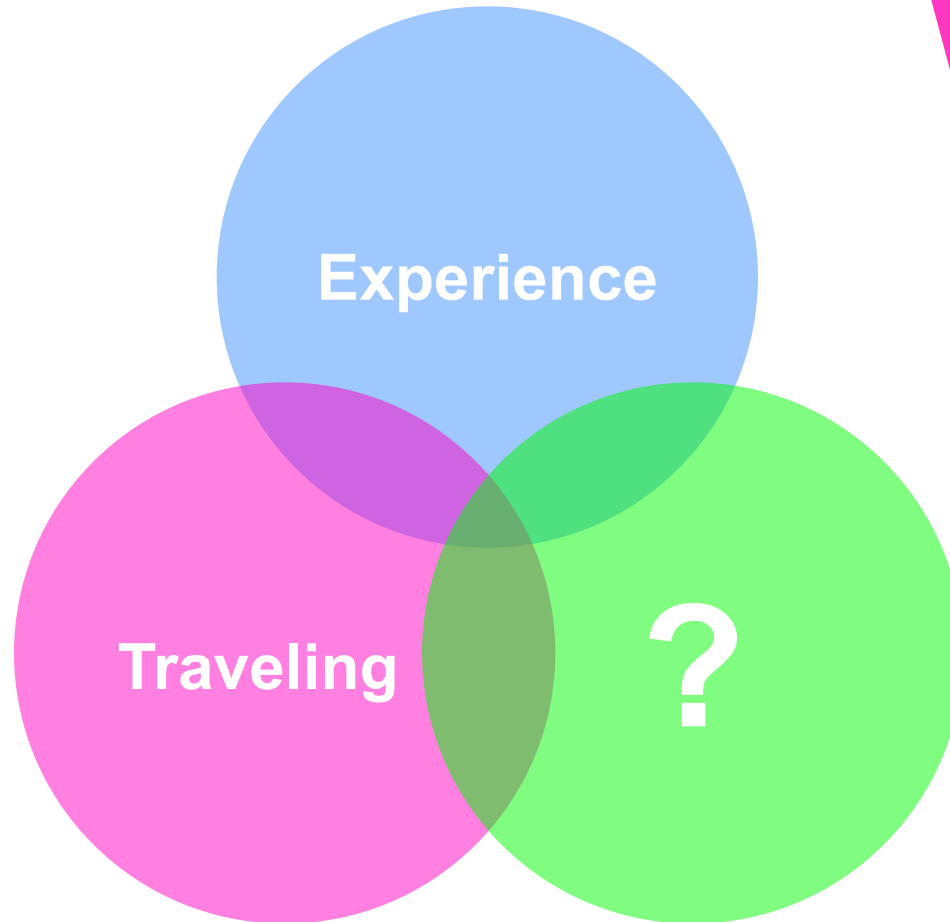
Let's see what the most important elements (keywords) of the question are...

The research process

Step 1: Defining the questions

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The elements / keywords



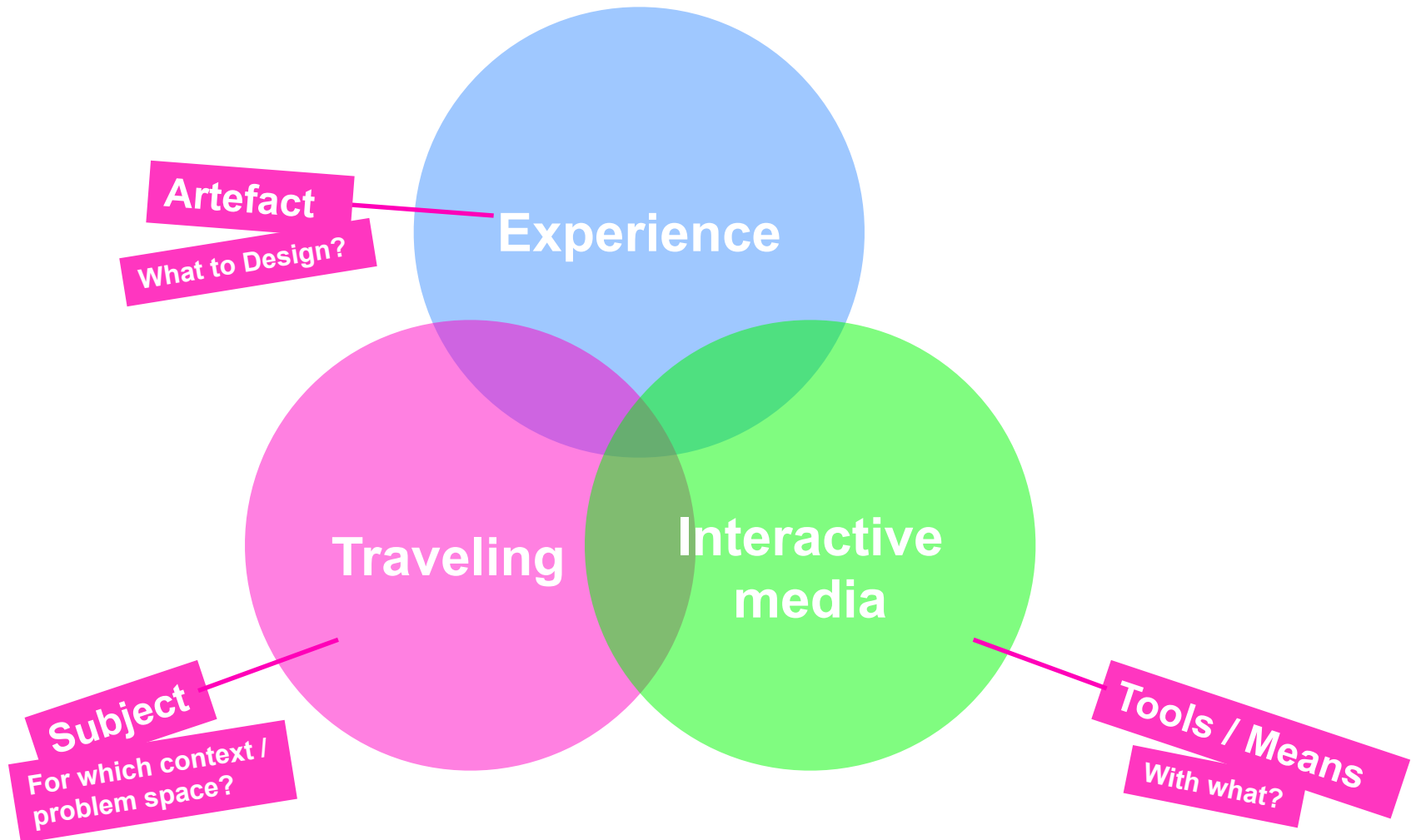
Supertip!
Venn diagrams are
useful for envisioning
abstract concepts

The research process

Step 1: Defining the questions

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The elements / keywords



Fourth attempt...

**How to design a travel
experience with interactive
media?**

It's much better, though we have narrow it down a bit more.

So let's add some more elements / keywords

Try to be specific...

How can InterRail enhance the travel experience of backpackers by using interactive media?

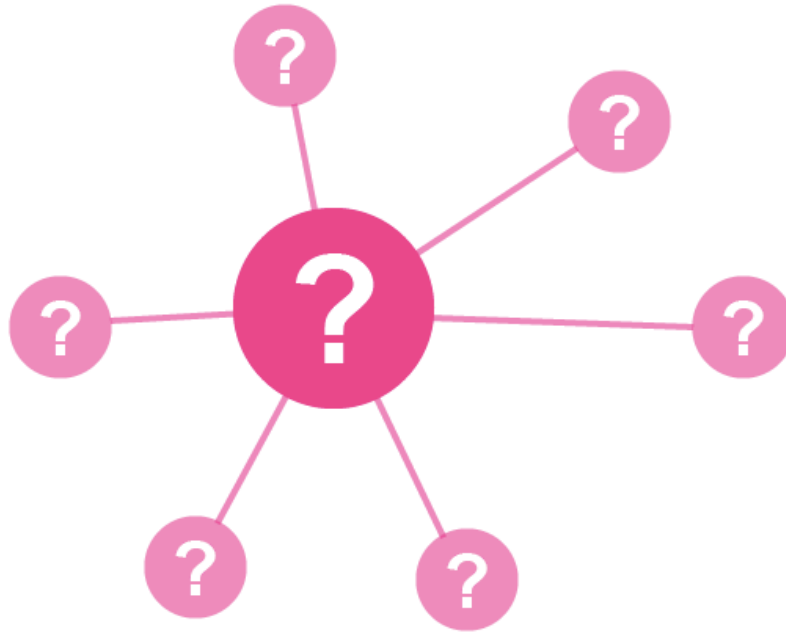
But not too specific...

How can InterRail enhance the travel experience in Northern Luxembourg of backpackers from Bexhill by using the Nokia N95 during springtime?

The research process

Step 1: Defining the questions

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Define the main-question
Then define the sub-questions

Tips!

**Use a mindmap
to organize your
questions**

**Write down all
the questions
you can think of,
even the stupid
questions**

**The answers of the sub-
questions will eventually
lead to the answers of the
main-question**

The research process

Step 1: Defining the subquestions

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What is traveling? Why do people (and animals?) travel?

What goals are they trying to achieve?

What is the mission, vision, and strategy of the client

How can InterRail enhance the travel experience of backpackers by using interactive media.

What are the needs and wants of the target group? What's important to them (values)? What kind of media do they use?

What does interactive media mean? What technology is available?

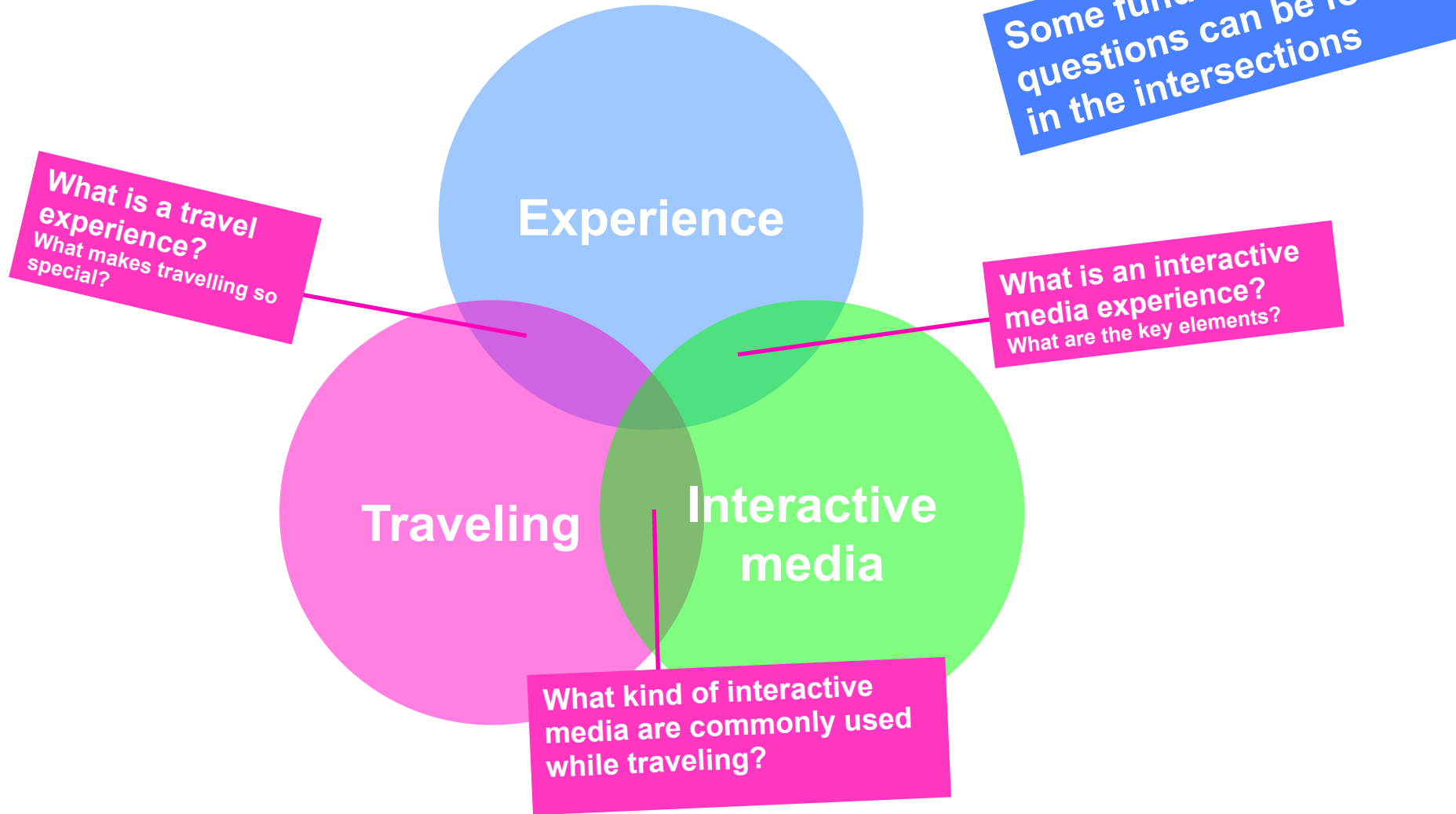
What is an experience? How to design experiences?

The research process

Step 1: Defining the questions

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Also take a look at the Venn diagram



**So this was the
first step of the
Big6...**

The research process

Step 2: The strategy

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Example of possible sources



Interviews
Interviews with experts,
users, stakeholders

**But also TED Talks,
conferences etc...**



Literature
Books, blogs, articles,
reports, theses etc.

What are all the sources you could use to get the information you need

Which sources are the best?

The research process

Step 2: The strategy

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Check out the guru's!



Nathan Shedroff
The guru of
Experience Design!



www.nathan.com



The research process

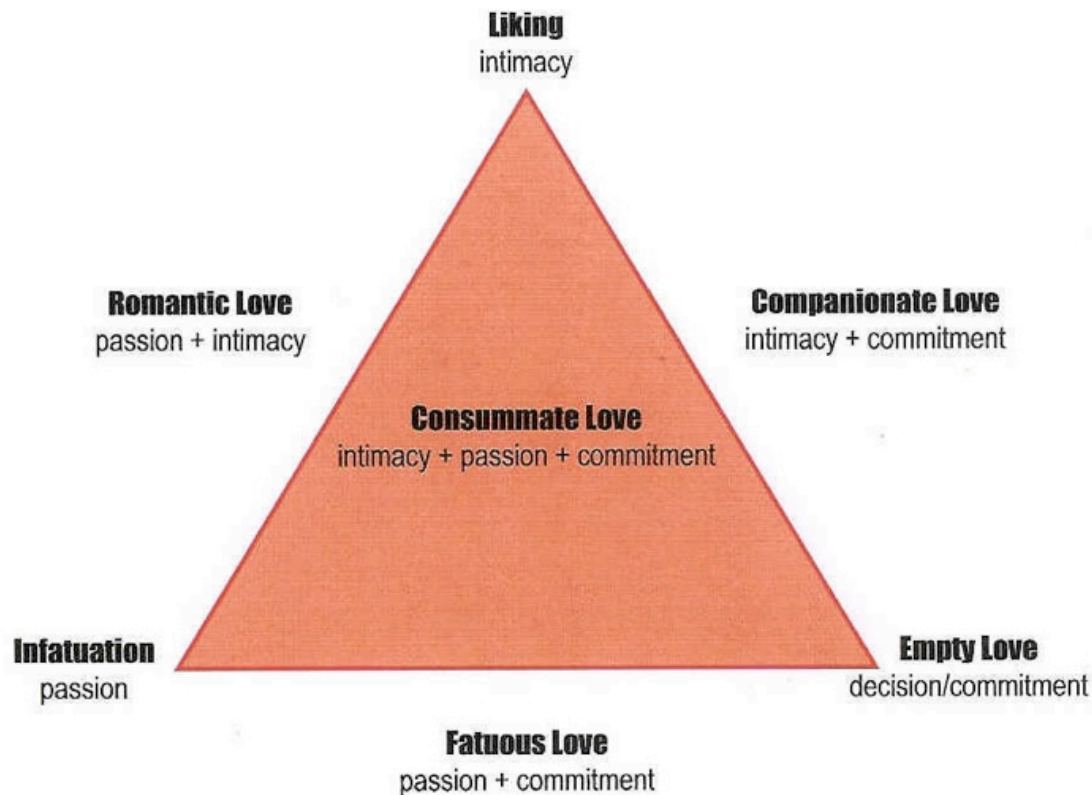
Let's talk about love!

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What is love?

Models and diagrams are a quick and easy way to explore the scope of a subject, or other related subjects

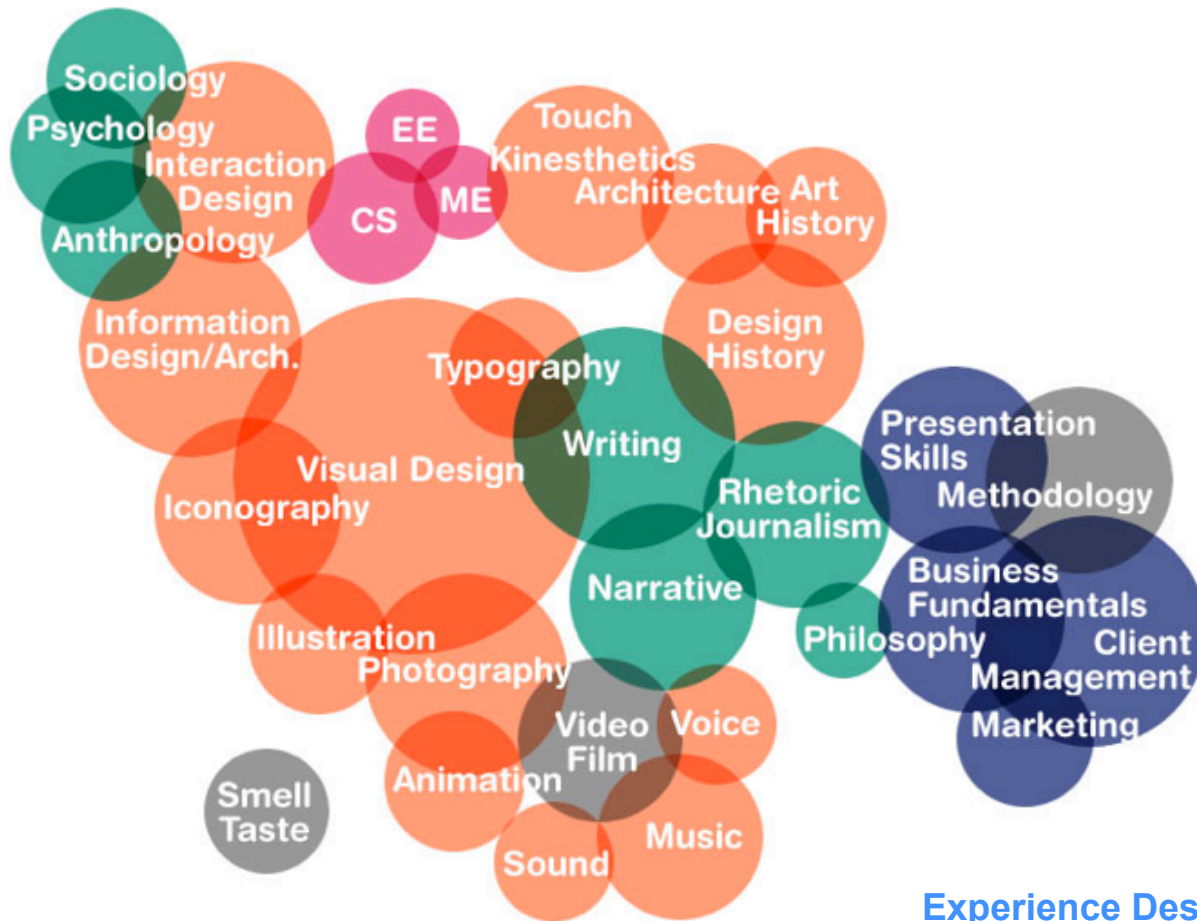


Triangle of 'Love'

The research process

Step 2: The strategy

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Experience Design according
to Nathan Shedroff

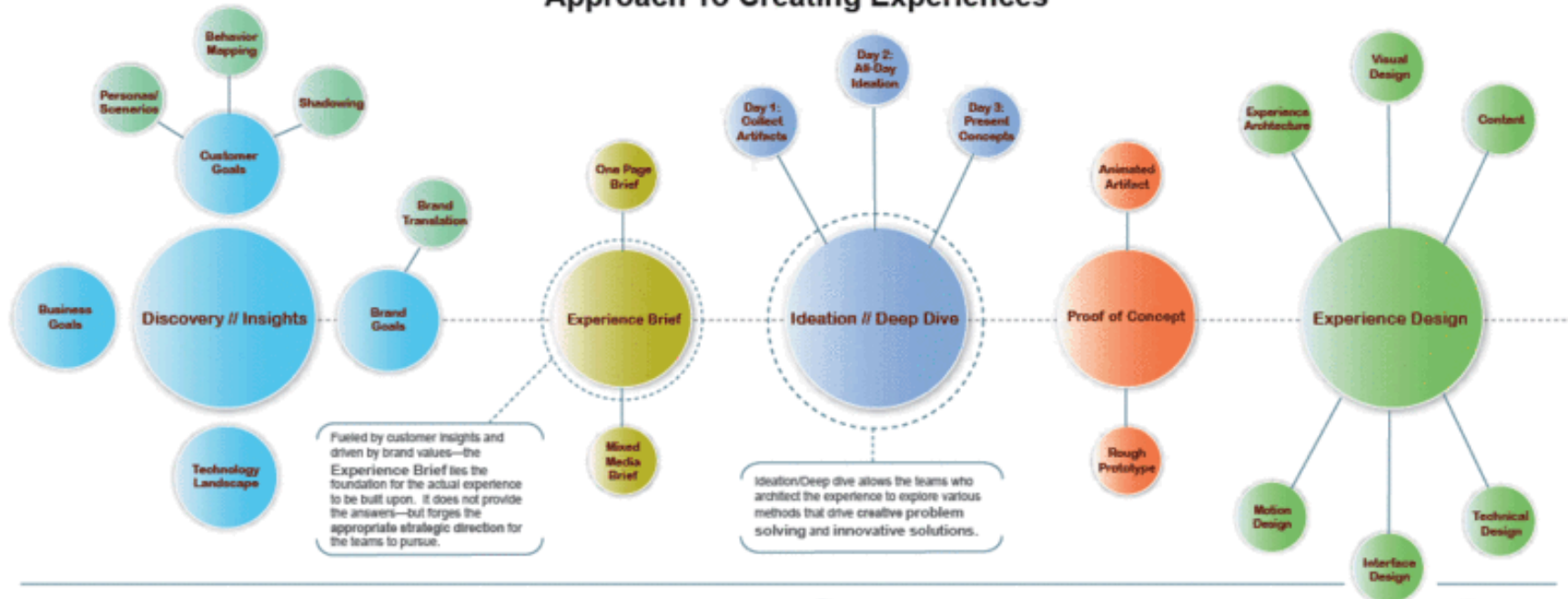
The research process

Step 2: The strategy

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Copyright David Armano, Logic + Emotion (www.darmano.typepad.com)

Approach To Creating Experiences



Uncover

Customer, Brand & Business Insights

It starts with the customer, their wants, needs and expectations—the brand and business objectives are also articulated to ensure that the experience (yet to be determined) will be strategically aligned.

Personas, Scenarios, Social Trends and other illustrative tools bring the customer to life and help establish emotional and rational mind-sets.

Define

The Experience Strategy

The Experience brief sets the stage for breakthrough ideas. A one-page Experience Brief succinctly captures the challenges and provides a high level strategy for how an Experience will be used to meet the challenges.

A Mixed Media version of the brief is then created to provide inspiration and direction for both the internal team and client. Regardless of format—its purpose is to generate enthusiasm and understanding.

Ideate

Immerse Interdisciplinary Teams

Teams must experience it for themselves. The ideation/deep dive is an intense 3-day series of worksessions involving both creative and non-creative team members:

Day 1: A day will be planned for teams to get out of the office and capture as much first-hand insight as possible.

Day 2: Teams will re-unite and engage in intensive creative ideation sessions.

Day 3: Teams will present their ideas in visceral formats including storyboards, sketches, and prototypes.

Build

The Concept

An Experience is tactile. The winning concepts, fueled by a "Big Idea" are built out in rough—but tangible fashion. A proof of concept can be executed in a number of ways.

Design

The Experience

With a Big Idea and Concept in place—the detailed Experience Design is created.

Google for images with keywords: diagram, model, experience design

The research process

Step 3: Locate and access the information

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Map the sources with
your sub-questions

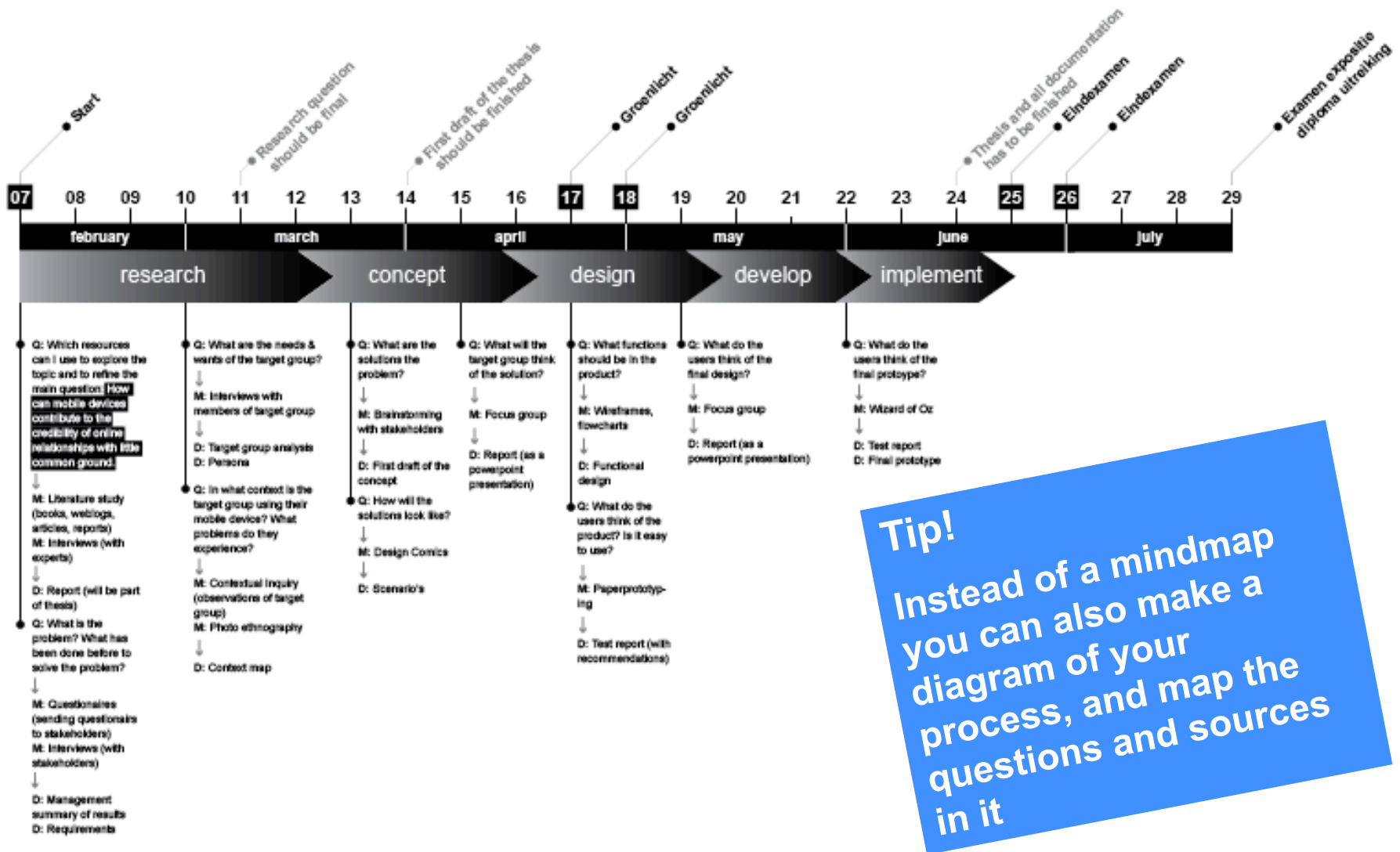
Use your mindmap
to organize it!

The research process

Step 3: Locate the information

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Roadmap: graduation project

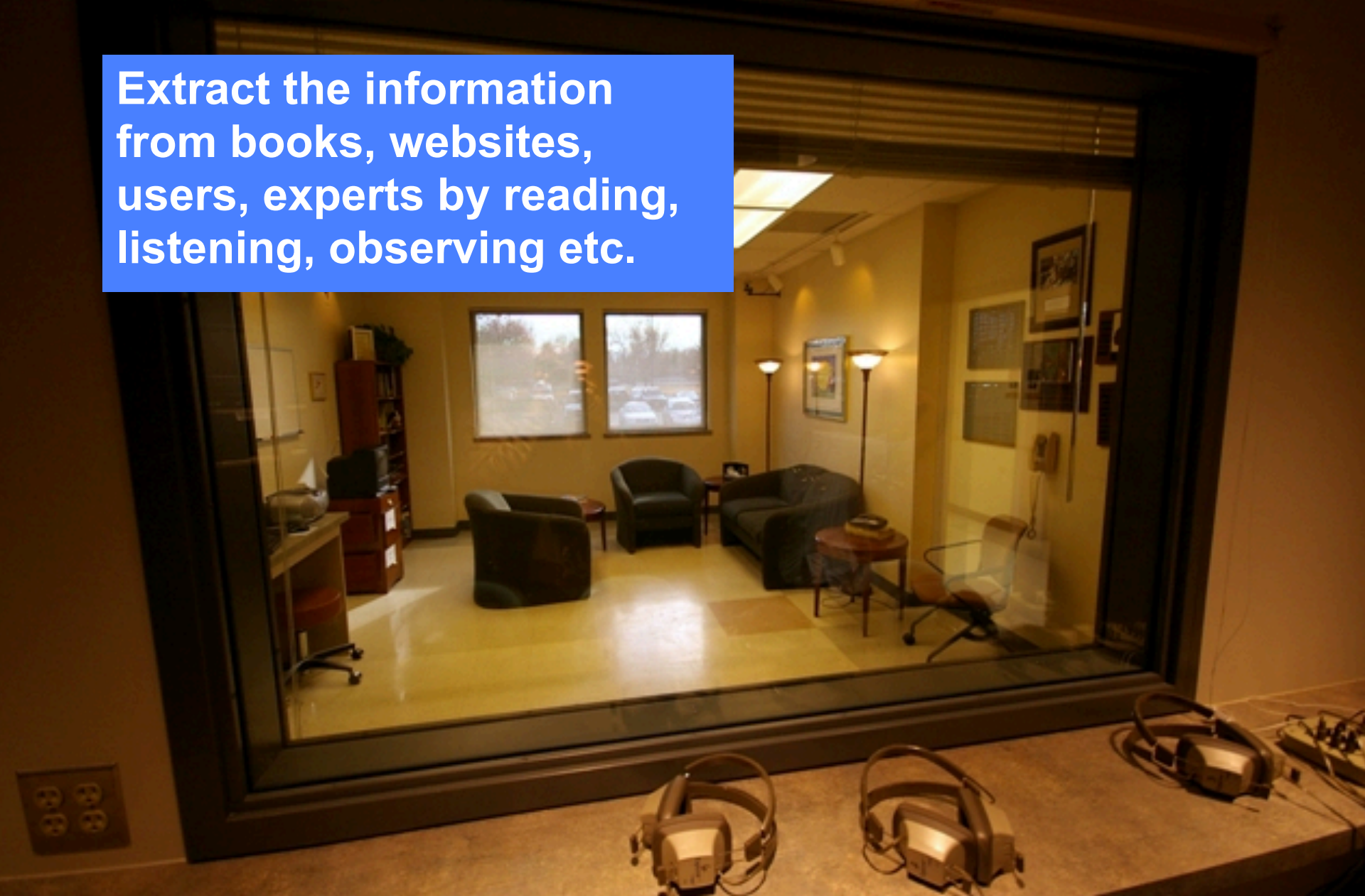


The research process

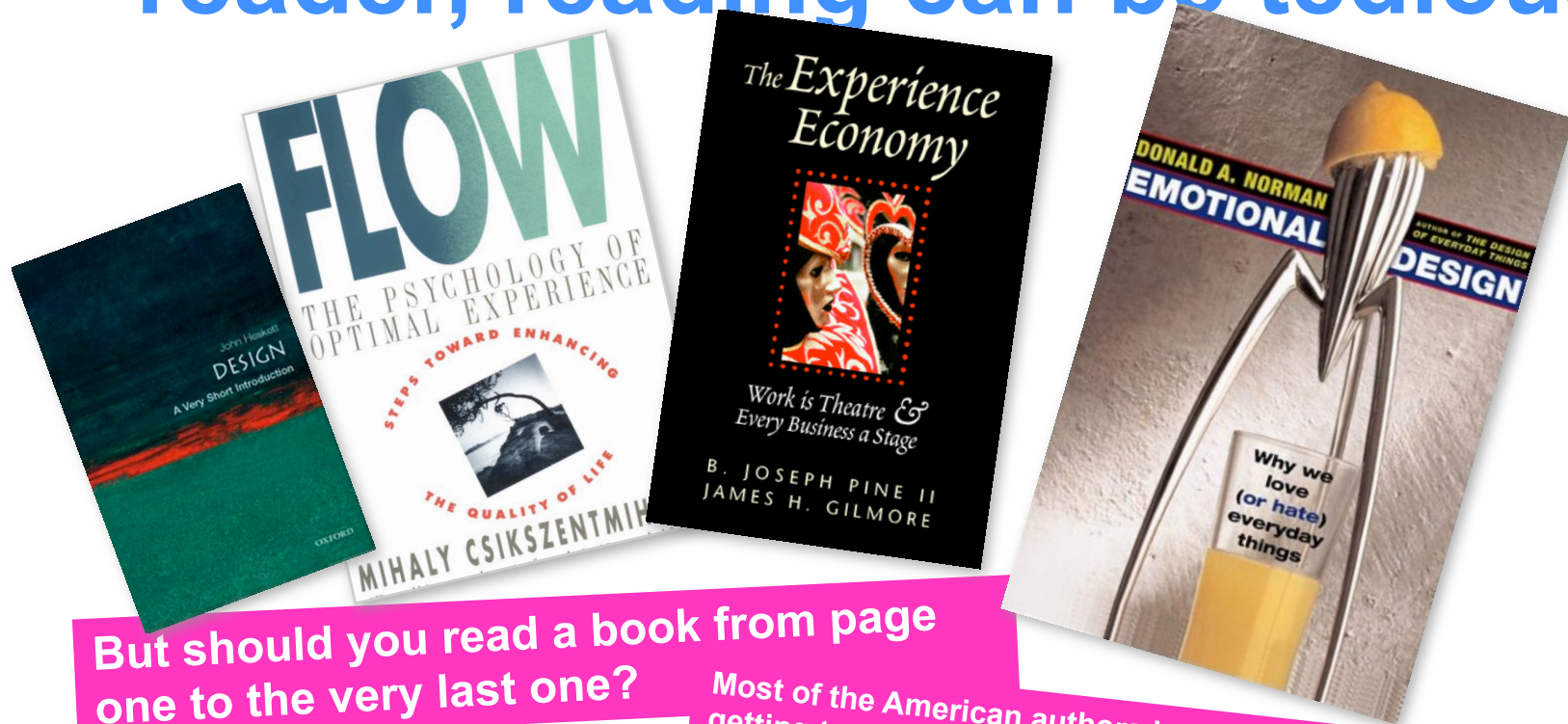
Step 4: Extracting the information

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**Extract the information
from books, websites,
users, experts by reading,
listening, observing etc.**



If you're not an experienced reader, reading can be tedious



But should you read a book from page one to the very last one?

Most of the American authors have problems with getting to the point.

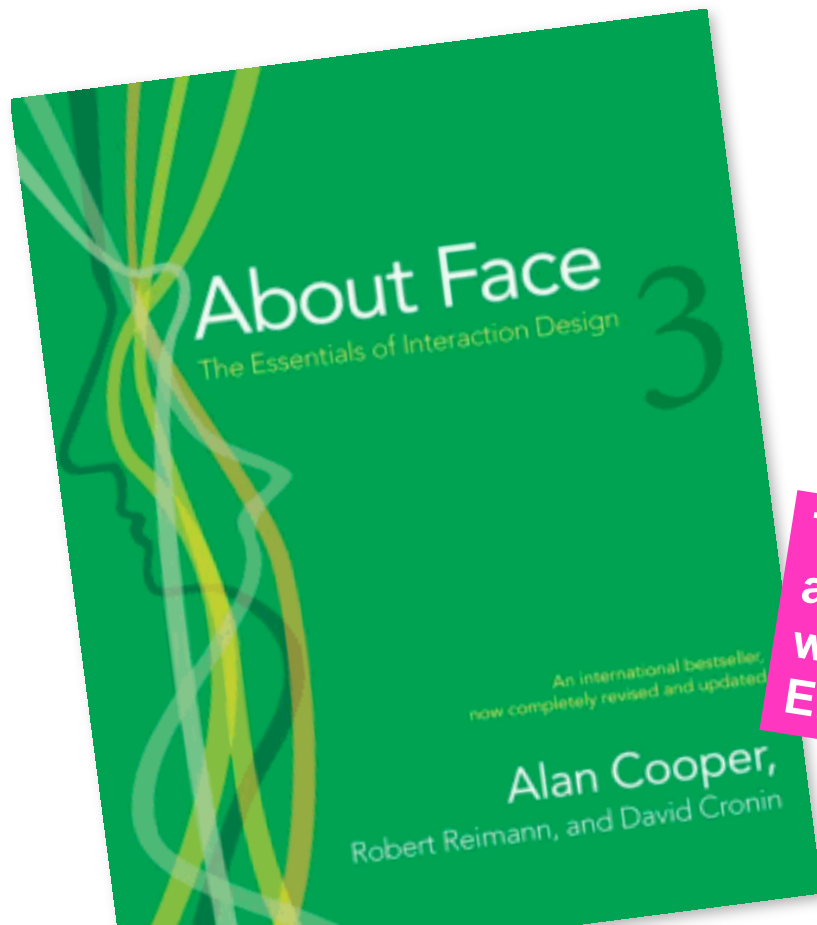
So if you read the first three chapters of a book, you get an idea what they are trying to explain

The research process

Step 4: Extracting the information

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Although, there is one exception...



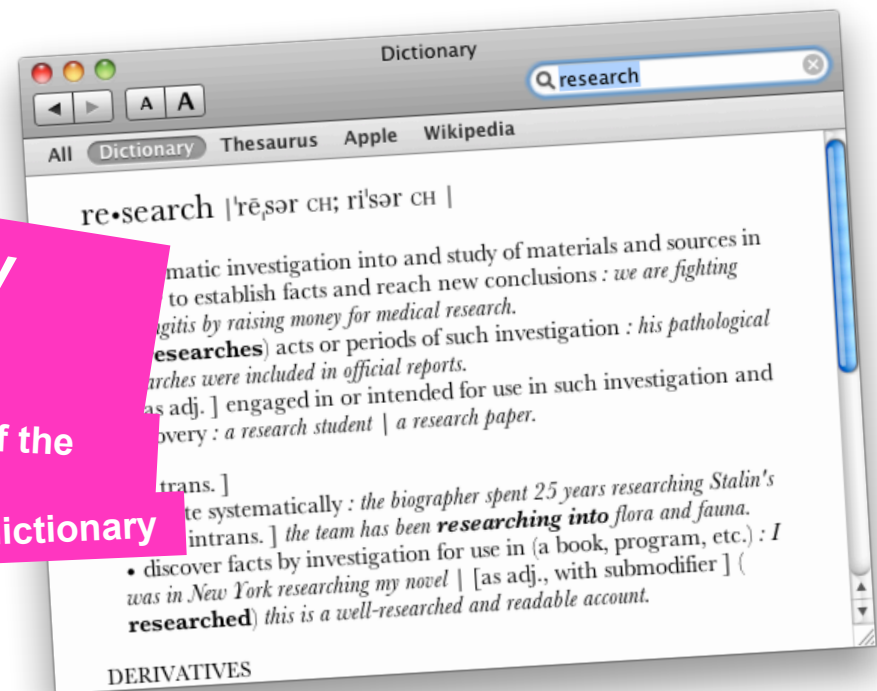
Talking about American authors who're having trouble with writing comprehensible English

If you're having problems with English literature?

Don't try to translate every word by looking it up in a dictionary.

Keep reading, and try to grasp the essence of the text, only translate words which are crucial

And use a English-English dictionary



The research process

Step 5: Putting it together

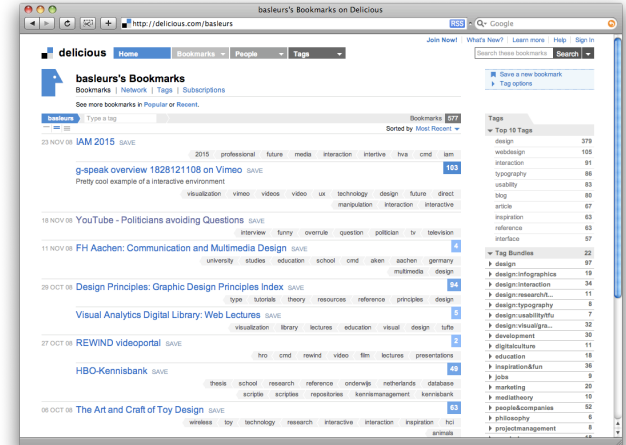
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How to organize all the material which you obtained from several sources?

Make notes (or write summaries) of interesting things you read

Use del.icio.us, a blog or a notebook

But there is maybe a better way



The research process

Step 5: Putting it together

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F*ck the paperless research lab!

The old old-school dossier way

We call it the

‘sourcefile’

(bronnenmap)



This is probably
going to save you
truckloads of time

The research process

Step 5: Putting it together

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For every useful or valuable source you find, put it on paper (A4)

Make a copy or print from books, webpages, articles

Highlight excerpts of the text with a marker (you may use them later to quote)

Add notes to it, which describe the following

Reference information (title, author, page, edition etc)

The reason why you selected this source (why is it useful?)

A Framework for Design

In the past two decades, research approaches have multiplied to a point at which investigators or inquirers have many choices. For those designing a proposal or plan, I recommend that a general framework be adopted to provide guidance about all facets of the study, from assessing the general philosophical ideas behind the inquiry to the detailed data collection and analysis procedures. Using an extant framework also allows researchers to lodge their plans in ideas well grounded in the literature and recognized by audiences (e.g., faculty committees) that read and support proposals for research.

What frameworks exist for designing a proposal? Although different types and terms abound in the literature, I will focus on three: quantitative, qualitative, and mixed methods approaches. The first has been available to the social and human scientist for years, the second has emerged primarily during the last three or four decades, and the last is new and still developing in form and substance.

This chapter introduces the reader to the three approaches to research. I suggest that to understand them, the proposal developer needs to consider three framework elements: philosophical assumptions about what constitutes knowledge claims; general procedures of research called strategies of inquiry; and detailed procedures of data collection, analysis, and writing, called methods. Qualitative, quantitative, and mixed methods approaches frame each of these elements differently, and these differences are identified and discussed in this chapter. Then typical scenarios that combine the three elements are advanced, followed by the reasons why one would choose one approach over another in designing a study. This discussion will not be a philosophical treatise on the nature of knowledge, but it will provide a practical grounding in some of the philosophical ideas behind research.

FROM: RESEARCH DESIGN, JOHN CRESSWELL
P 3

DESCRIBES THE DEFINITION OF A
FRAMEWORK

Presenting your research

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Very important!!!

Think of an
inspiring way to
communicate your
research results



Presenting your research



Movies



Powerpoint

Don't write
extensive reports

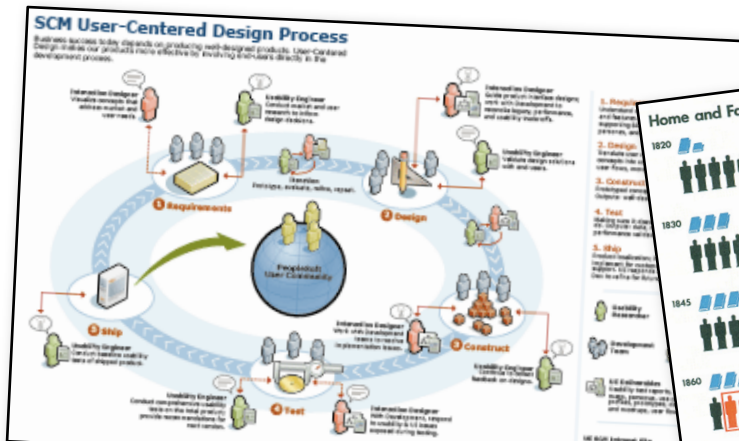
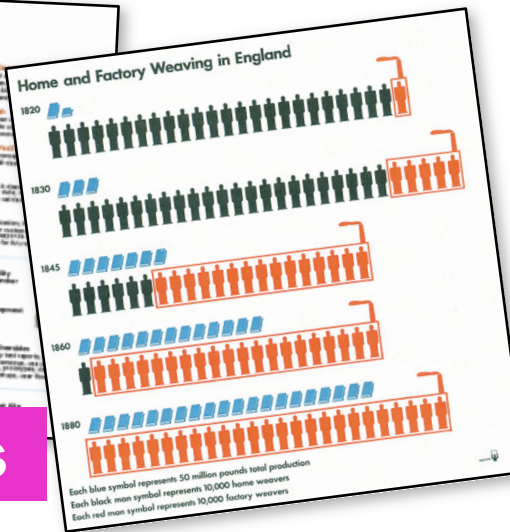


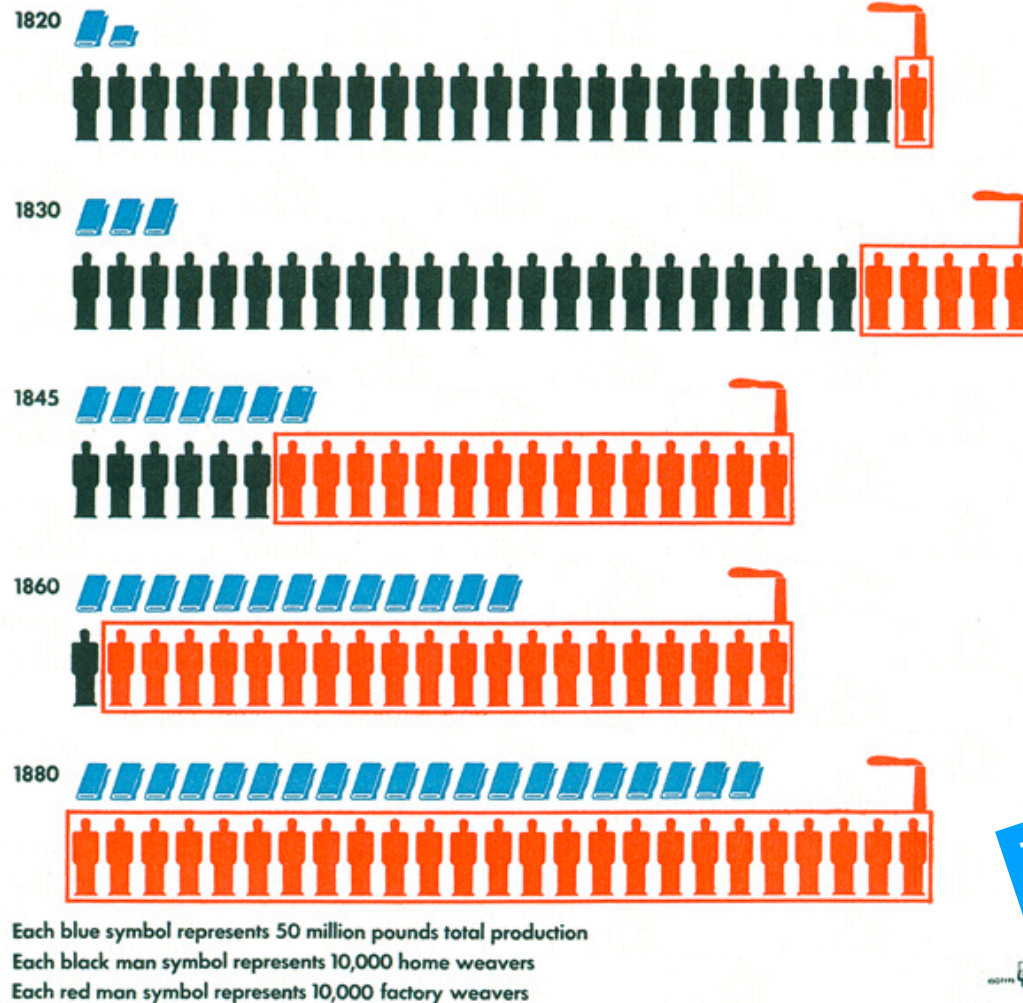
Diagram / Models



Use Powerpoint
instead, but limit
yourself to 10 slides
(or less) to really
get to the point

Presenting your research

Home and Factory Weaving in England



The work of Otto Neurath looks much better than a default pie chart from Excel

Persona's

Sheila Pauwveer

"Op mijn reizen werd ik niet vrolijk van de hoeveelheid mensen bij de toeristische trekpleisters."

- 24 jaar.
- HBO Sociaal pedagogisch hulpverlener, vorige zomer afgestudeerd.
- Single.
- Woont anti kraak.

Shelly heeft tijdens haar studies, vaak tijdens zomervakanties reizen gemaakt van vaak een maand tot 2 maanden. Tijdens deze reizen naar onder andere Azië en Zuid-Amerika, heeft ze van alles bezocht. Haar reisgedrag is volgens eigen zeggen met de jaren verandert. Eerst liep ze achter de toeristen stroom aan naar alle hotspots, maar naarmate haar ervaring groeide ging ze steeds meer haar eigen weg. Ze probeert zich vaak voor te bereiden voor ze op reis gaat, maar wil niet een dag schema voor heel haar reis, want het avontuurlijke element moet wel blijven bestaan.



Fig. 7 - Sheila Pauwveer

Presenting your research

Try to make
'rich' persona's

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Persona: Afgestudeerde CMD student

Jeroen Blijvelt



Leeftijd:
23 jaar

Woonplaats:
Sliedrecht

Vooropleiding:
Havo (en 'één jaar'
Bouwkunde)

"Ik wilde iets creatiefs doen,
maar niet van dat vage gedoe
zoals op de kunstacademie"



Mediagebruik

Leeft en beleeft
media 24/7!



XBOX
LIVE

lost.fm

LinkedIn

twitter

facebook



Daily Mugshot

Passie & ambities

"Een complex probleem vind ik een
uitdaging, om uiteindelijk met collega's
een oplossing te bedenken, waar de doel-
groep en opdrachtgever blij mee is."

"Ik wil over 5 jaar lead designer zijn en betekenis-
volle interactieve mediaproducten en experiences
ontwerpen voor mensen en merken."

Is goed in:

- Inleven in doelgroepen en gebruikers
- Ontwerpen en innovatieve concepten ontwikkelen
- (Ontwerp)keuzes onderbouwen met theorie
- Ideeën visualiseren en presenteren
- Samenwerken in multidisciplinaire teams
- Trends spotten en toepassen in projecten



Mooiste momenten van dit jaar



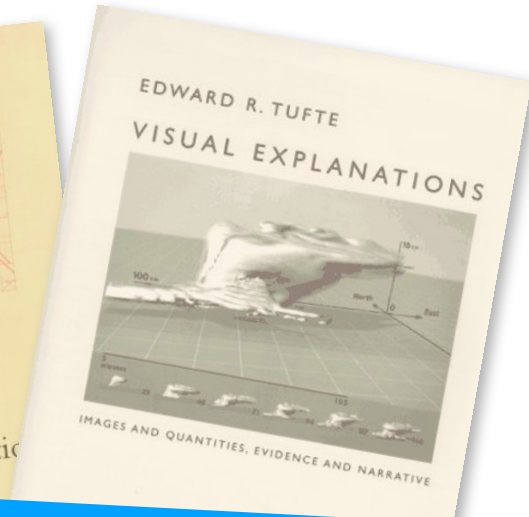
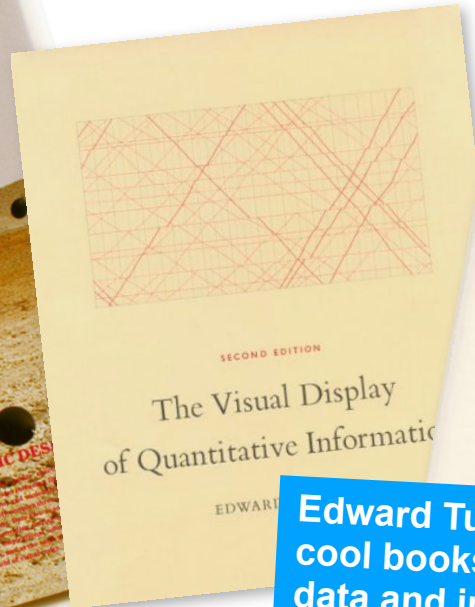
3 dagen Lowlands
met vrienden

"Het meest trots ben
ik op de tweede plaats
die ik (samen met drie
oud-klassgenoten) heb
gehaald voor de Eneco
Battle of Concepts."

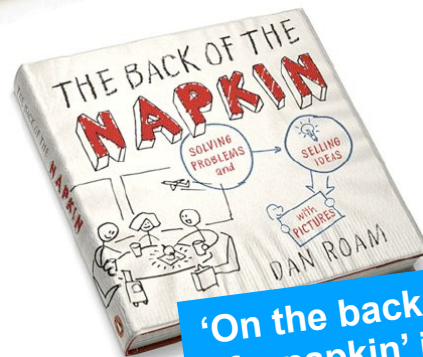
Battle of
Concepts

Snowboarden in
Les Arcs (FR)

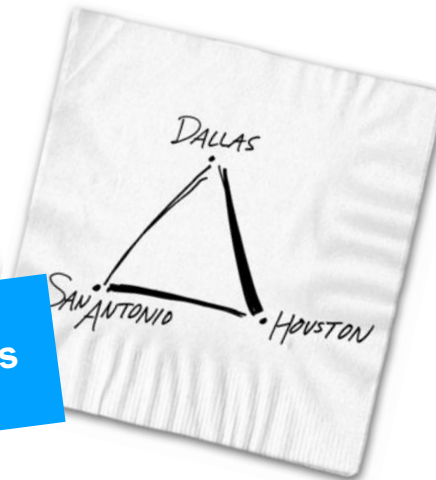
Presenting your research



Edward Tufte wrote some cool books about visualizing data and information



'On the back of a napkin' is a must read!



Is the information, which you found, the answer to the question?

If not, start with step 1 again and refine or redefine your question

Tip! Also have a look at the bibliography in books you used, or do some more interviews!

And now...

**Something
about
methods...**

Choosing the right methods

Is sending a questionnaire to friends and family really the best way to gain customer insights?

It depends on what you need to know of course

QUESTIONNAIRE

Very often	<input type="checkbox"/>
Often	<input type="checkbox"/>
Sometimes	<input checked="" type="checkbox"/>
Rarely	<input type="checkbox"/>
	<input type="checkbox"/>



But...

It's definitely one of the easiest ways to do research. At least you don't have to talk to the target group? (they all smell awful... right?)

But...

**Are friends and family
really the target group?**

**Or is it just an easy way to get
one of your deliverables finished,
and your teachers happy?**

**When time is limited, it might be a way to get
the information you need... right?**

**Make a good planning, so you have more time to do better
research**

Also...

**Most students get dissappointed and frustrated because
of the low response rate, or the useless results.**



**Forget about your
friends, as a
researcher you
don't need them
(anymore)**

**Quantitative research is built
around numbers and data**

Mostly carried out through questionnaires

Tip: quantitative data can be found at
www.cbs.nl and all kind of branche
organisations

**Focus mainly on
qualitative research**

Research methods

The problem with people (and grannies)

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**What about a
nice cup of tea?**

Research methods

The problem with people

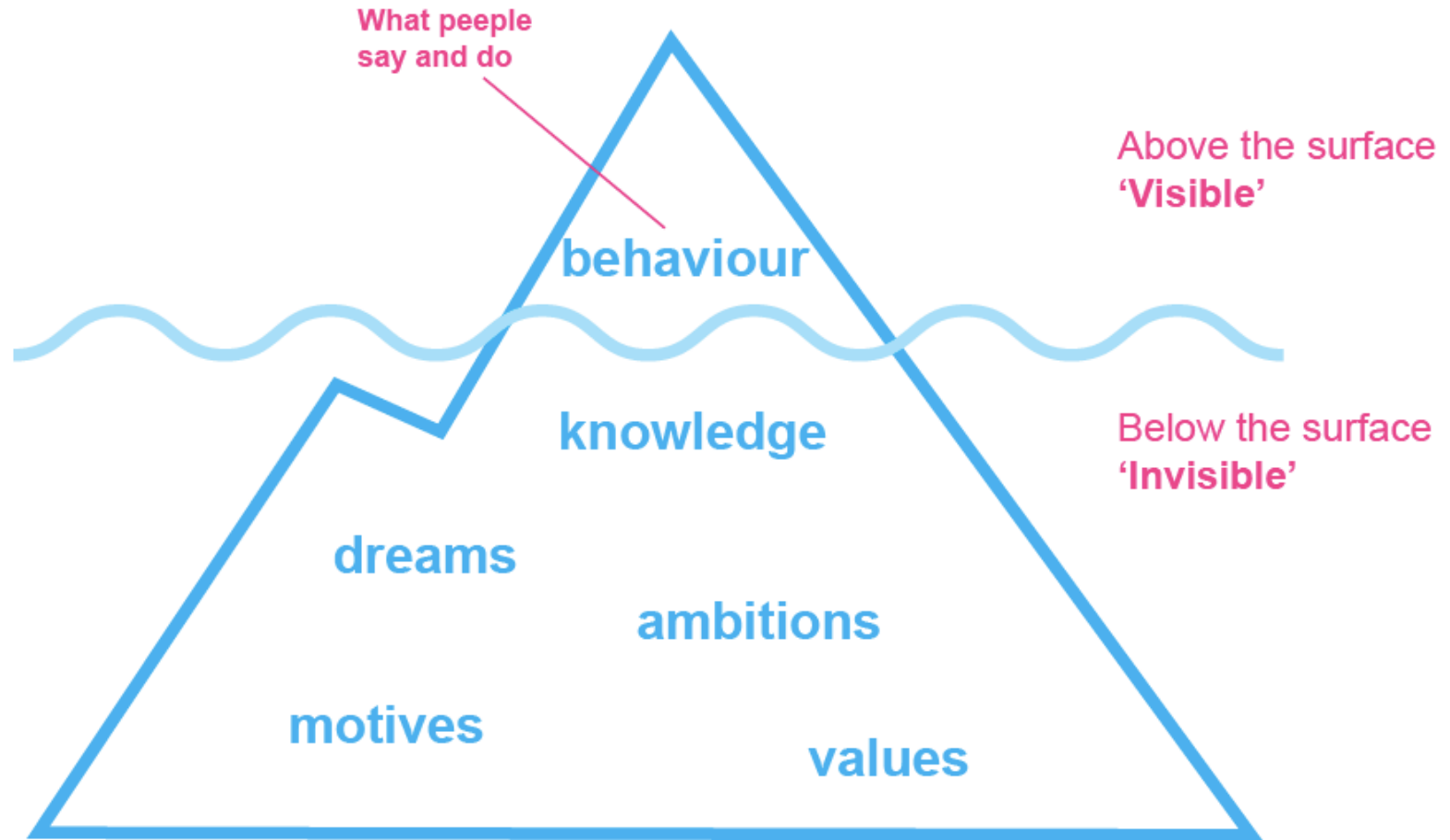
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Research methods

The problem with people

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Qualitative research deals with words and images

Uses tools such as (expert) interviews, group interviews, literature reviews and observations

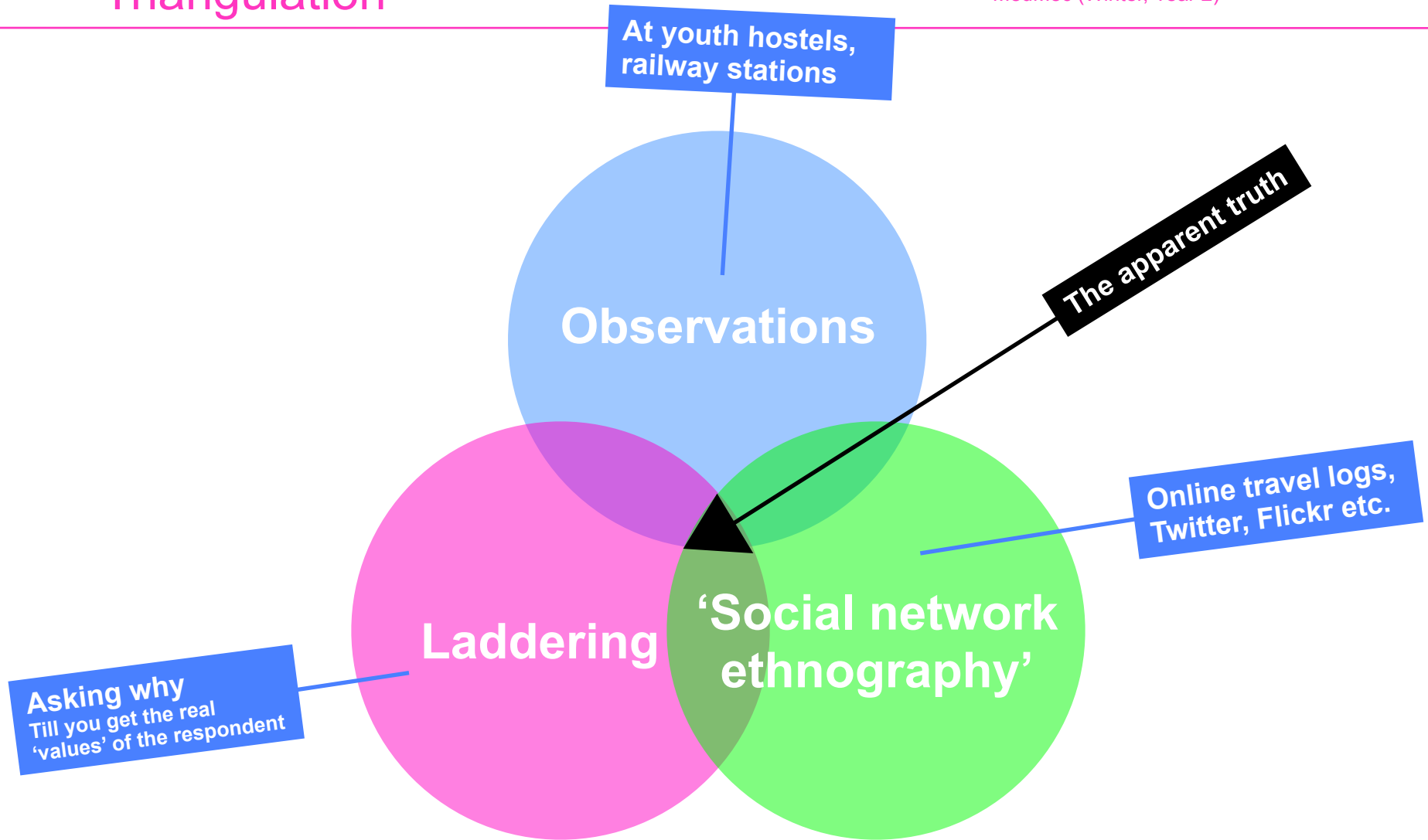
Every designer must understand the customer, use 'triangulation' to get the real customer insights

Triangu...
wha?

Research methods

Triangulation

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Talking about 'triangulation', read this article on Johnny Holland:
johnnyholland.org/2009/08/20/practical-triangulation/

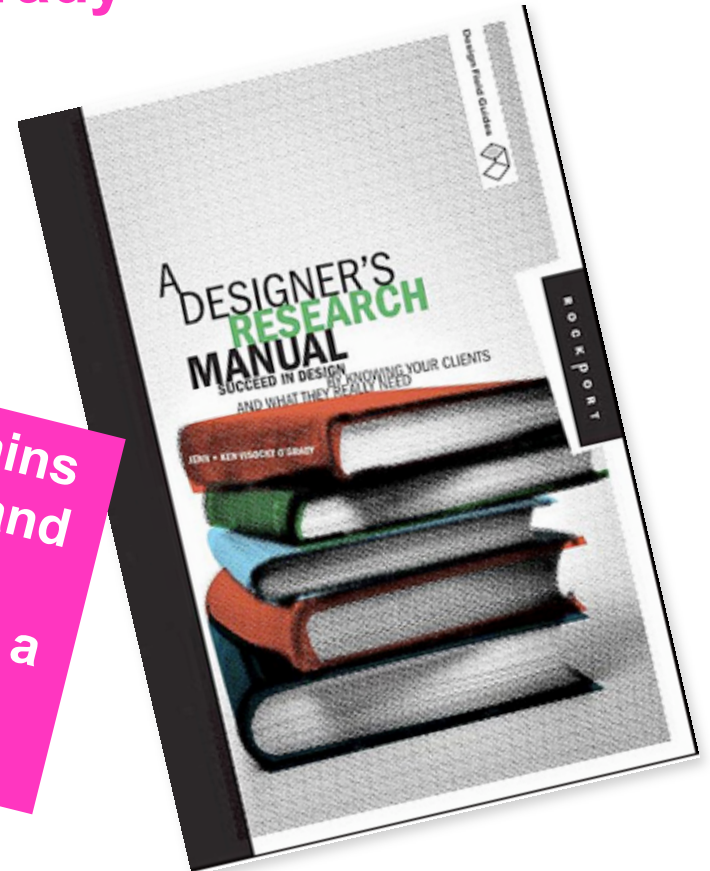
Almost finished...

Recommended literature

A Designer's Research Manual

Jennifer & Kenneth Visocky O'Grady

A brilliant book! It explains the theory of research, and many techniques or methods are explained in a very clear and concise manner.



Tip! Have a look at this book...

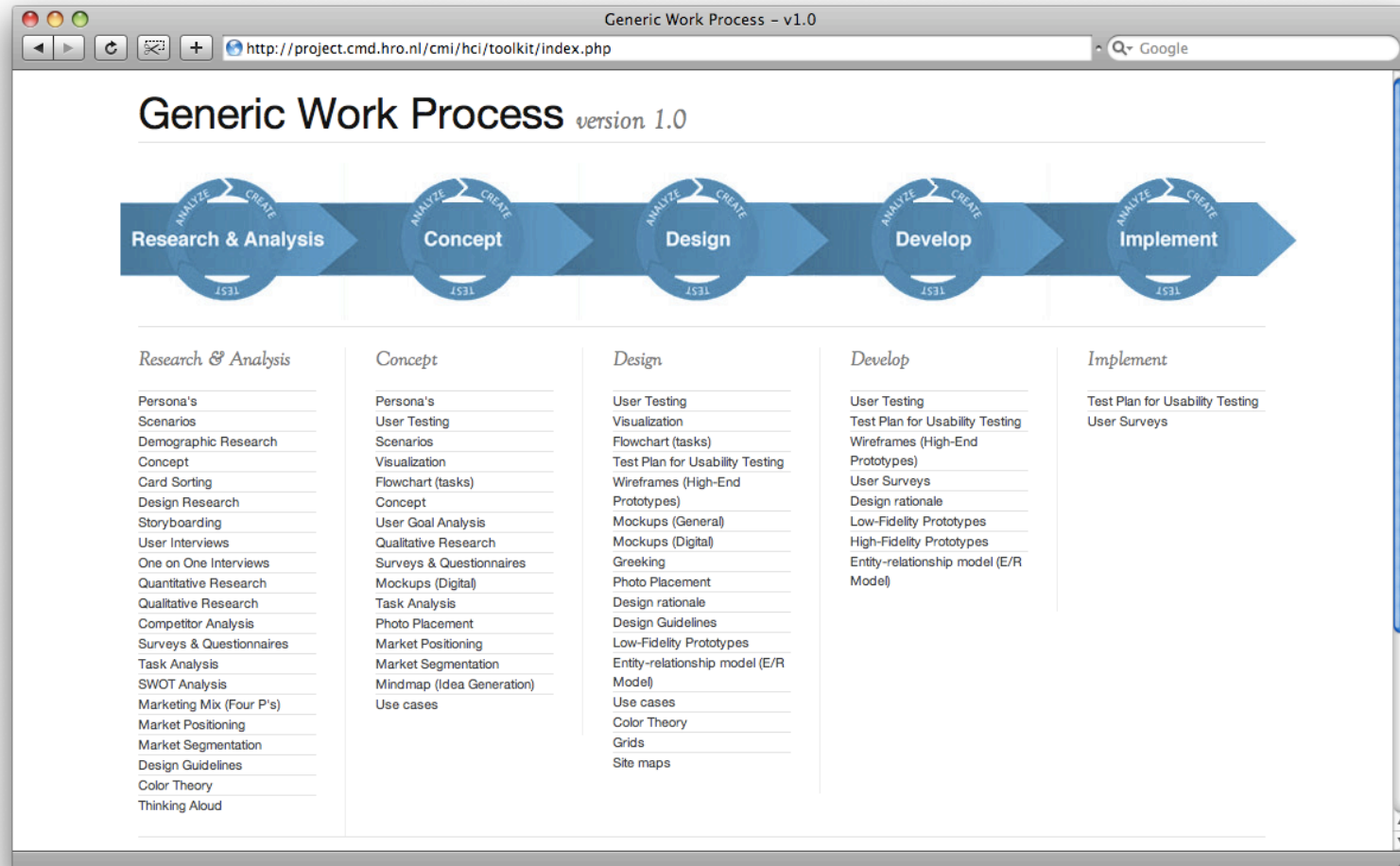
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Nieuwe producten bedenken

Gijs van Wulfen



Have a look at the collection of methods...



To conclude this lecture

As you might have noticed, research is about asking questions?

In order to find the right answer, you need to find the right question first (which is the hardest part)

And... one more thing!

**Don't forget
to question
everything!**

Your teacher will be proud!!!