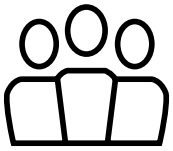
THE QGLUE DESIGN THINKERS PLAYBOOK

QGLUE
A QAI Promoted venture

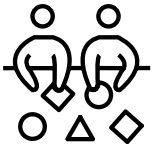
Contents

INTRODUCTION

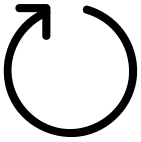
WHAT IS DESIGN THINKING



PEOPLE AT THE HEART OF THE EXPERIENCE



CO-CREATION



HOLISTIC APPROACH

FUZZY AMBIGUITY

Design thinking helps shift mindsets: from a consumer's mindset to a makers's mindset.

From an accepting mindset to a questioning mindset.

From a passive mindset to an active and empowered mindset.

It is a method of problem-solving wherein the data collected is expressed visually in order to create new strategies, ways and methods to solve problems, create opportunities or strengthen weaknesses.

It helps approach problems with a designer thinker's mindset executed through a non-linear process that focuses on finding the right problem and then creating a solution with people at it's heart.

WHAT TO EXPECT

This compilation is intended as an active toolkit to support your design thinking practice.

The guide is not just to read – go out in the world and try these tools yourself. In the following pages, we outline each mode of the design thinking process, and then describe dozens of specific tools to work with. You will now have a tangible toolkit which support the mindsets that are vital attitudes for a design thinker to hold.

The playbook provides you with many tools, but with the intent of 'seeking' the problem, double loop learning, rather than merely trying to 'solve' it, Single Loop. Through a series of divergent and convergent) loops, with in turn multiple iterative learning loops even within them, this is as non-linear as a process can get. But don't let this throw you off, for this does not mean there is no structure to the chaos; on the contrary, once you've chosen your starting point, you may then embark on your own journey and combined the tools provided along with other methodologies and theories you may find useful to develop ideas.

HOW TO USE THIS PLAYBOOK

The book has been divided into different Phases of the Design Process. Each phase describes the approach and mindset required to help you make the most of the Design Process.

At the end of each of the Phases, you will find a list of tools that can be used in them; also, against each of the tools, you can link back and see which Phases each of them can be used in.

For each of the Phases, you can also see the key takeaways emerging from them, and how they form the basis for the next Phase

Do NOT follow this as a linear process. Adapt it, annotate it, snip it, reconstruct it, and make it your own.

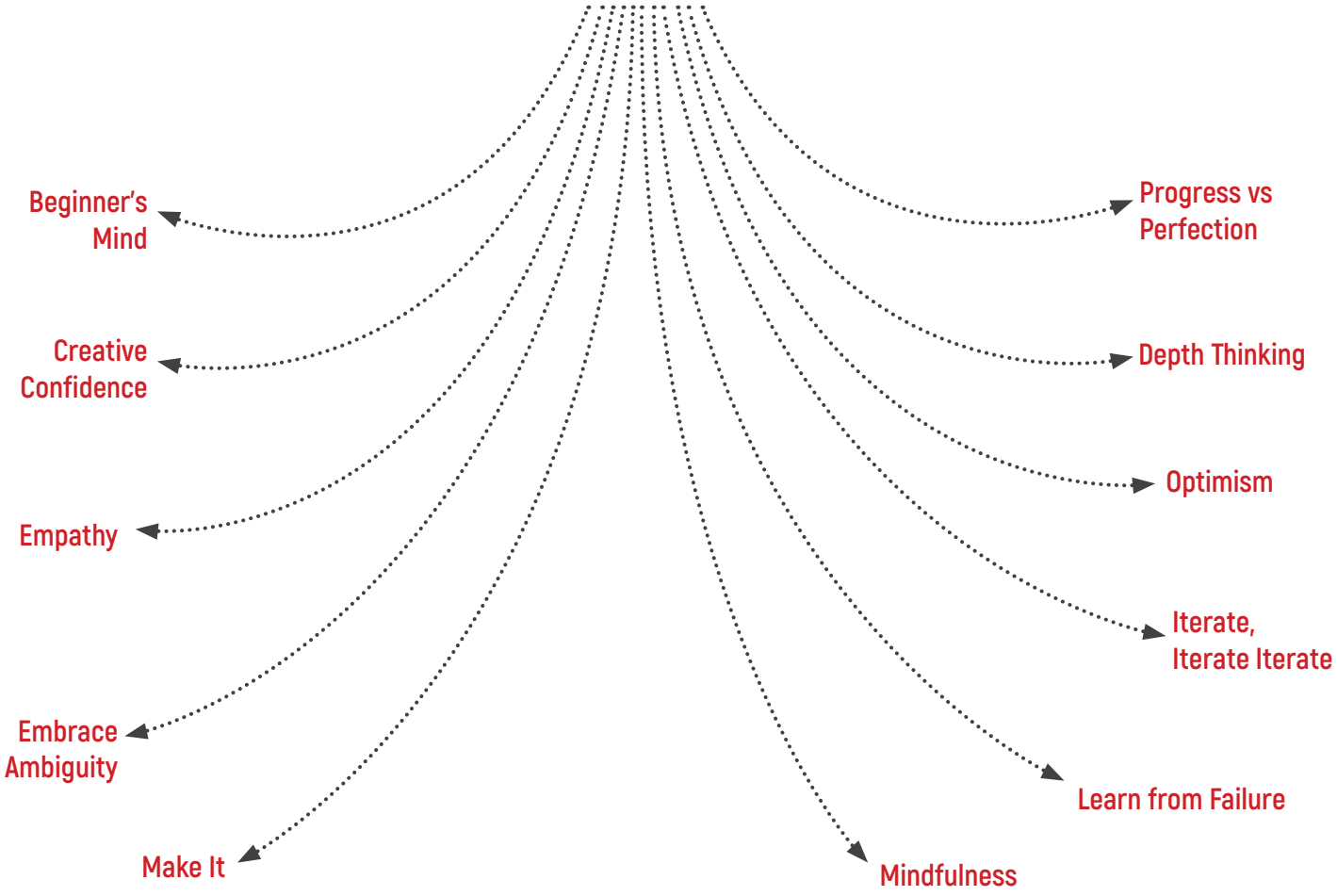
WHAT YOU GET OUT OF THE PROCESS

- Flexibility to tailor-make and adapt an approach to best fit your needs
- Developing a sound problem-solving mindset

WHAT WILL YOU NOT FIND HERE

- Any ready-to-use ideas
- A definite answer to your problem
- Ways to predict the future
- Quick Fixes

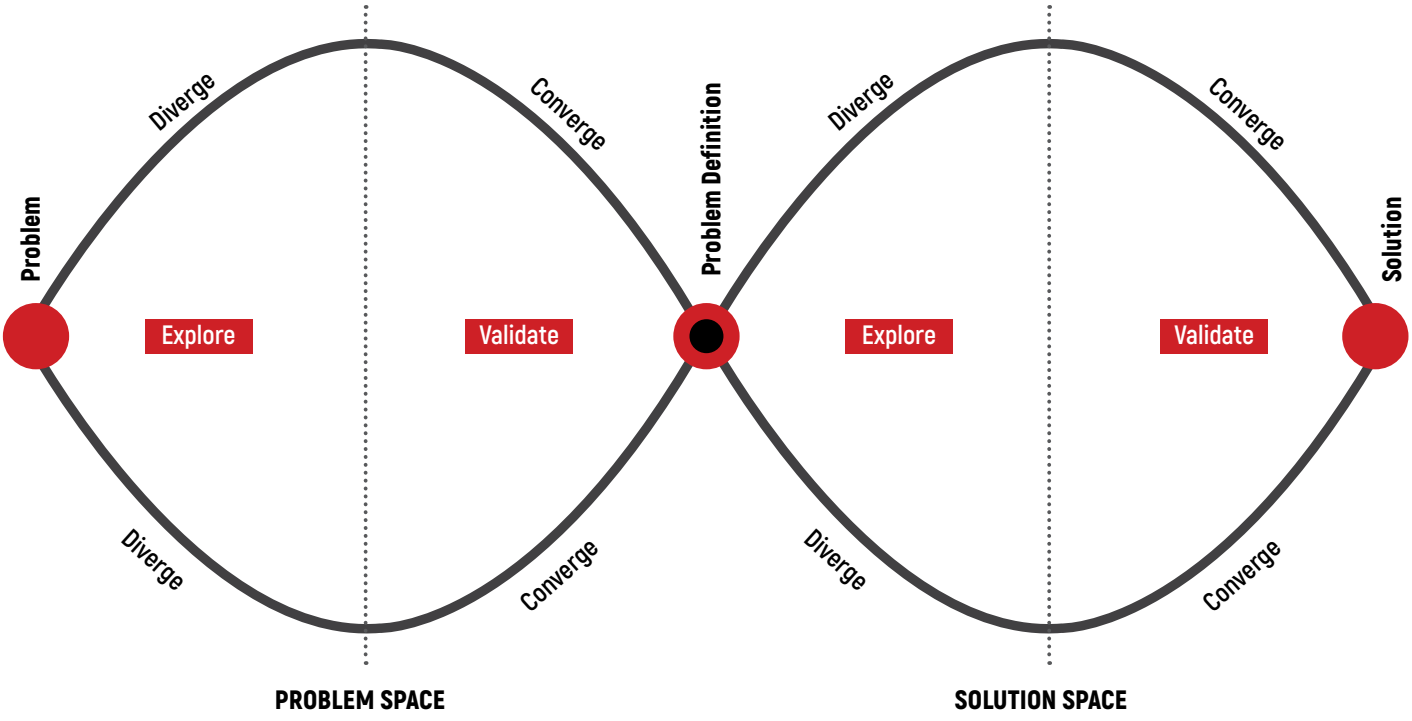
A DESIGNER THINKER'S MINDSET



THE DESIGN PROCESS

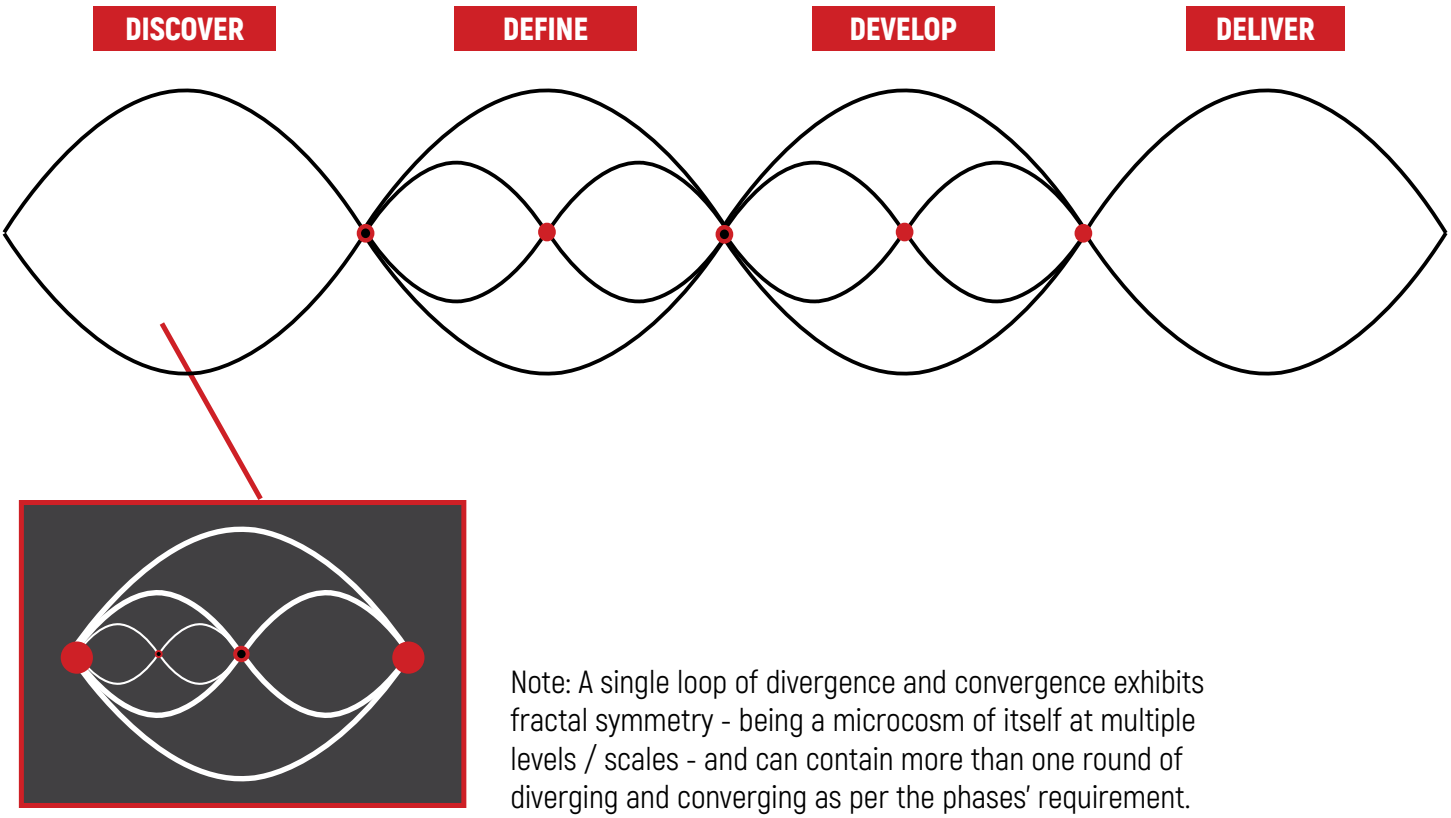
DESIGN THINKING FLOW

The Design Thinking Loop consists of the Problem Space and Solution Space - each comprising of a diverge and converge. The Design Thinking Process, consists of multiple iterations of the below given loop - from Define through Discover to Develop and Deliver.



UNDERSTANDING THE PHASES

The process is dynamic and non linear in nature and flows back and forth from one phase to the other. As illustrated, it is a series of divergences and convergences at play as we move through different phases.



Note: A single loop of divergence and convergence exhibits fractal symmetry - being a microcosm of itself at multiple levels / scales - and can contain more than one round of diverging and converging as per the phases' requirement.

DISCOVER

Discover mode is the foundation of a human-centered design process. This is where you empathize with users by:

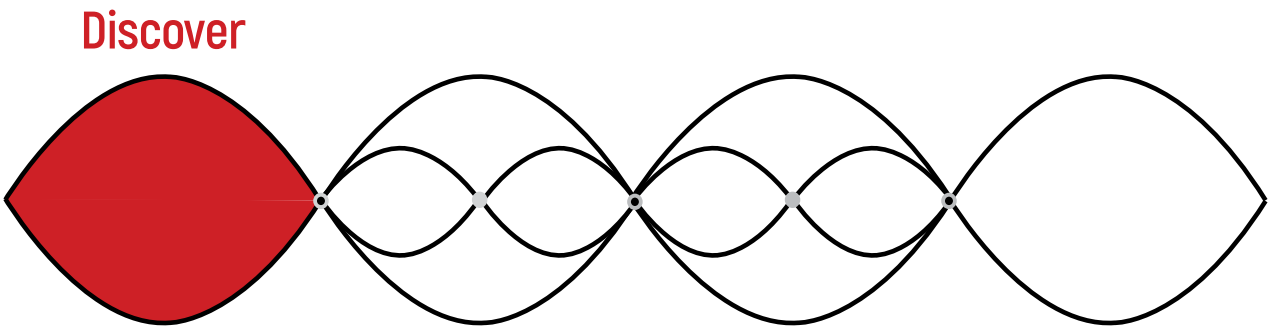
- **Observation.** View users and their behavior in the context of their lives.
- **Engagement.** Interact with and interview users through both scheduled and short 'intercept' encounters.
- **Immersion.** Experience what your user experiences.

WHY empathize

As a design thinker you need to understand the people for whom you are designing. The problems you are trying to solve are rarely your own – they are those of particular users; in order to design for your users, you must build empathy for who they are and what is important to them.

Watching what people do and how they interact with their surroundings gives you insight into what they think and feel. It also helps you to learn about what they need. By watching people you have a sense of their experiences, what they do and say. This will allow you to interpret intangible meaning of those experiences in order to uncover their needs and motivations. The best solutions come out of the best insights into human behavior.

Engaging with people directly reveals a tremendous amount about the way they think and the values they hold. The stories that people tell and the things that people say they do – even if they are different from what they actually do – are strong indicators of their deeply held beliefs about the way the world is. Good designs are built on a solid understanding of these kinds of beliefs and values.



Empathy

Empathy is the capacity to step into other people's shoes, to understand their lives, and start to solve problems from their perspectives. The design thinking approach is build on the concept of empathy, on the idea that the people you're designing for are your roadmap to innovative solutions. All you have to do is empathize, understand them, and bring them along with you in the design process.

SCOPE

1. TAKE A WALK IN THE USER'S SHOES
2. KEEP NOTE OF ALL THEIR PAIN AND GAIN POINTS
3. UNDERSTAND THE USERS MOTIVATIONS AND GOALS
4. OBSERVE THEIR WORKAROUNDS
5. LISTEN TO THEIR STORIES

RECOMMENDED TOOLS

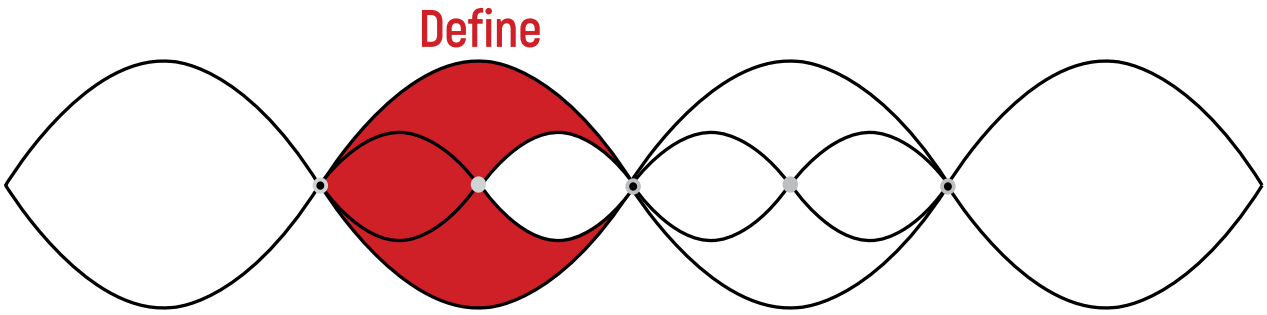
DEFINE

The define mode is about crafting a specific and meaningful challenge. The goal of the define mode is to come up with an actionable problem statement: your point of view.

The define mode is critical to the design process because it explicitly expresses the problem you are striving to address through your efforts. In order to be truly generative, you must first craft a specific and compelling problem statement to use as a solution-generation springboard.

As a test, a good point of view (POV) is one that:

- Provides focus and frames the problem
- Inspires the team
- Provides a reference for evaluating competing ideas
- Empowers your team to make decisions independently in parallel
- Captures the hearts and minds of people you meet.
- Is something you revisit and reformulate as you learn by doing
- Guides your innovation efforts



Embrace Ambiguity

We always start from the place of not knowing the answer to the problem that we looking to solve. And though that's not particularly comfortable, it allows us to open up creatively, to pursue lots of different ideas, and to arrive at unexpected solutions. Embracing ambiguity allows us to give ourselves permission to be fantastically creative.

SCOPE

1. A CLEAR UNDERSTANDING OF THE PROBLEM SPACE
2. IDENTIFICATION OF THE USERS INVOLVED AND THEIR ROLES
3. MAPPING THE VARIOUS FUNCTIONS AND FACTORS CAUSING OR AFFECTING THE PROBLEM

RECOMMENDED TOOLS

DEVELOP

Develop mode is when you focus on idea generation and solutioneering. Mentally it represents a process of "going wide" in terms of concepts and outcomes – it is a mode of "flaring" rather than "focus." The goal of ideation is to explore a wide solution space – both a large quantity of ideas and a diversity among those ideas. From this vast repository of ideas you can build prototypes to test with users.

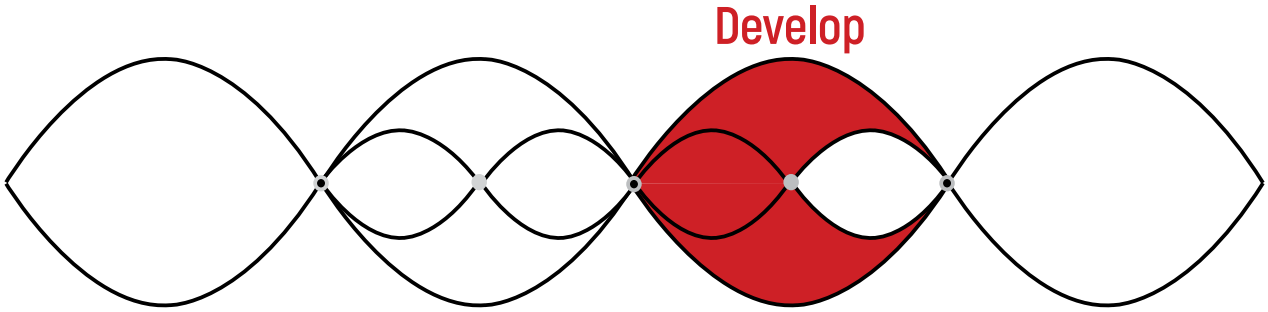
WHY ideate

You ideate in order to transition from identifying problems into exploring solutions for your users.

Various forms of ideation are leveraged to:

- Step beyond obvious solutions and thus increase the innovation potential of your solution set
- Harness the collective perspectives and strengths of your teams
- Uncover unexpected areas of exploration
- Create fluency (volume) and flexibility (variety) in your innovation options
- Get obvious solutions out of your heads, and drive your team beyond them

Regardless of what ideation method you use, the fundamental principle of ideation is to be cognizant of when you and your team are generating ideas and when you are evaluating ideas – and mix the two only intentionally.



Creative Confidence

Anyone can approach the world like a designer thinker. Often all it takes to unlock that potential as a dynamic problem solver is creative confidence . Creative confidence is the belief that everyone is creative, and that creativity isn't the capacity to draw or compose or sculpt but a way of approaching the world

SCOPE

1. BRAINSTORM, REFLECT ON FINDINGS FROM PREVIOUS PHASES
2. ENGAGE IN INDIVIDUAL AND GROUP BRAINSTORMING
3. EXHAUST ALL POSSIBLE SOLUTIONS
4. MIX, MATCH AND TWEAK TO COME UP WITH THE MOST IDEAL SOLUTION(S)

RECOMMENDED TOOLS

DELIVER

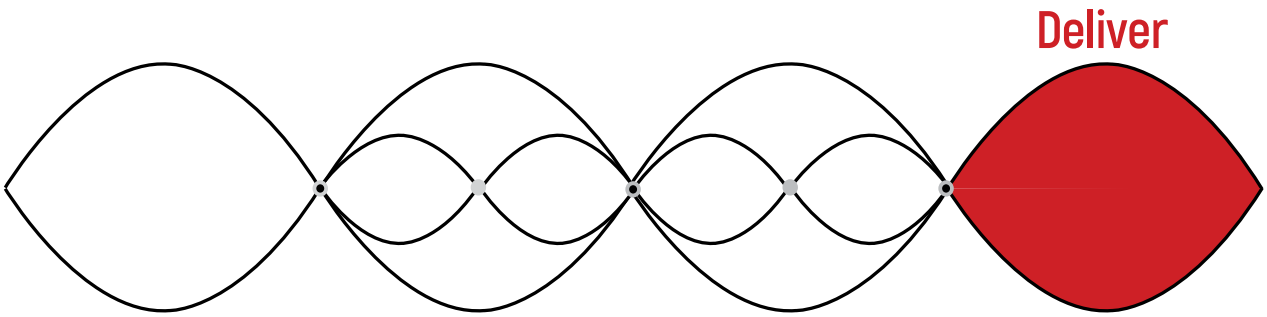
Deliver is getting ideas and explorations out of your head and into the physical world. A prototype can be anything that takes a physical form – be it a wall of post-it notes, a role-playing activity, a space, an object, an interface, or even a storyboard. The resolution of your prototype should be commensurate with your progress in your project. In early explorations keep your prototypes rough and rapid to allow yourself to learn quickly and investigate a lot of different possibilities.

Prototypes are most successful when people can experience and interact with them. What you learn from those interactions can help drive deeper empathy, as well as shape successful solutions.

WHY do we prototype

Traditionally prototyping is thought of as a way to test functionality. But prototyping is used for many reasons, including these (non-mutually-exclusive) categories:

- **Empathy gaining**: Prototyping is a tool to deepen your understanding of the design space and your user, even at a pre-solution phase of your project.
- **Exploration**: Build to think. Develop multiple solution options.
- **Testing**: Create prototypes (and develop the context) to test and refine solutions with users.
- **Inspiration**: Inspire others (teammates, clients, customers, investors) by showing your vision.



Make It

In design thinking, we make because we believe in the power of tangibility and we know that making an idea real is a fantastic way to think it through. When the goal is to get impactful solutions out into the world you can't stay in the realm of theory. You have to make your ideas real.

SCOPE

1. CHANGE OPINIONS INTO FACTS
2. DISCOVER & RECTIFY PROBLEMS EARLY
3. DIFFERENTIATE WHAT CUSTOMERS THINK VS WHAT CUSTOMERS DO

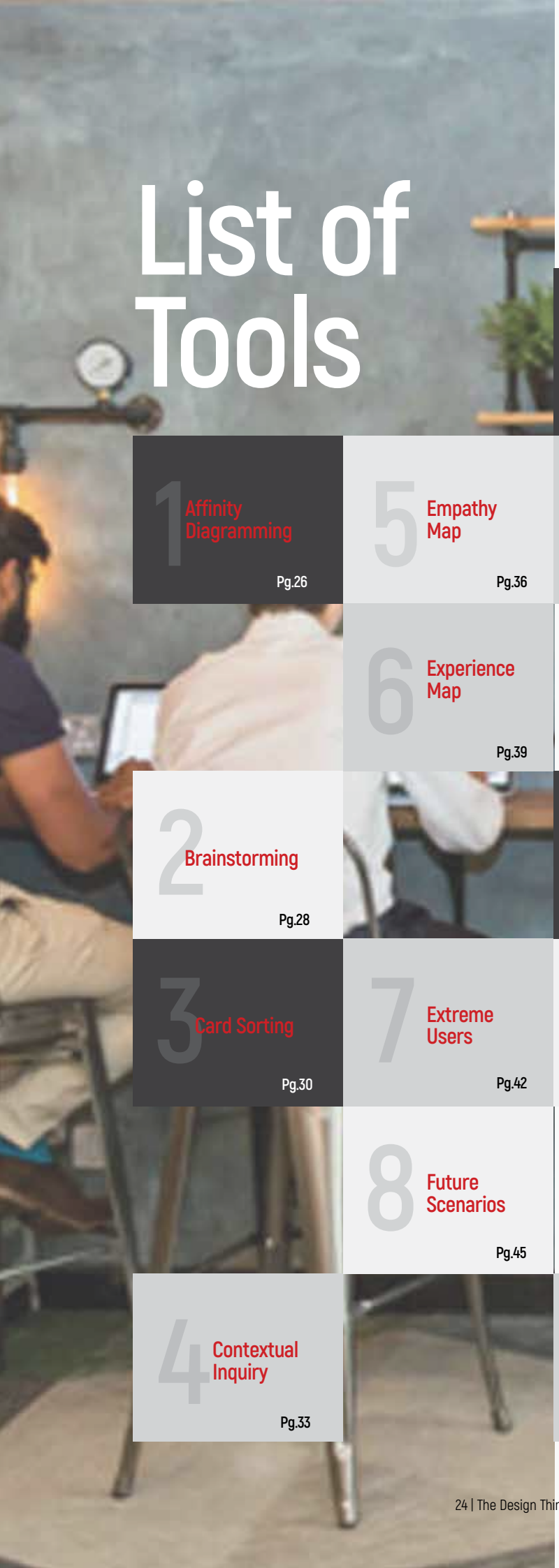
RECOMMENDED TOOLS

The Toolkit

OVERVIEW

Introduction to the Toolkit and its use in the Playbook Since the Design process requires you to engage with a lot of information and derive insights from it, here are some design tools to guide you along your journey.

Different kinds of tools can be used in particular phases of the project. For instance, the discover phase will require you to pick tools that are more people facing and can facilitate user participation or interaction for you to gather relevant information, whereas the tools in the Develop phase required a maker mindset to give form and realize the solution.



List of Tools

QGLUE

PHASES OF DESIGN PROCESS

KICK OFF

1. DISCOVER

This phase is about understanding our user. It gives us a scope to empathise with them and their context (surrounding/ environment).

Methods

Card Sorting
Contextual Inquiry
Empathy Map
Extreme Users
Persona
Stakeholder Mapping

2. DEFINE

We analyse and define our point of view on user needs.

Methods

Affinity Diagramming
Experience Mapping
How Might We

3. DEVELOP

Based on user needs, we leverage our creative thinking and brainstorm to arrive at innovative ideas.

Methods

Brainstorming
Idea Blitz using 7/3/5 Technique
Innovation Probes
Mind Mapping
Multiscreen Diagram
SCAMPER

4. DELIVER

Building representation of our ideas to translate our vision and test it with our users.

Methods

Storyboarding
Wizard of Oz

FIN.

1 Affinity Diagrams

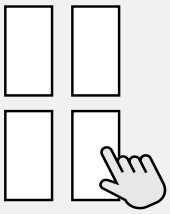
What?

An Affinity Diagram is a tool that gathers large amounts of language data (ideas, opinions, issues) and organizes them into groupings based on their natural relationships. The Affinity process is formalized in an Affinity Diagram and is useful when you want to sift through large volumes of data and/or encourage new patterns of thinking.

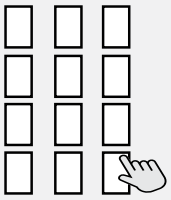
How?

Record each idea with a marking pen on a separate sticky note or card. Randomly spread notes on a large work surface so all notes are visible to everyone. Place them side by side. Repeat until all notes are grouped. It's okay to ideas that don't seem to fit in am group. If a note seems to belong in two groups, make a second note. Participants can discuss, any patterns, and especially reasons for moving controversial notes.Look for a note in each grouping that captures the meaning of the group. Place it at the top of the group. If there is no such note, write one.

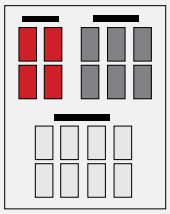
STEP-BY STEP



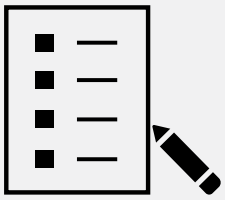
1. Generate Ideas on sticky notes/pieces of paper.



2. Put all papers out on display.



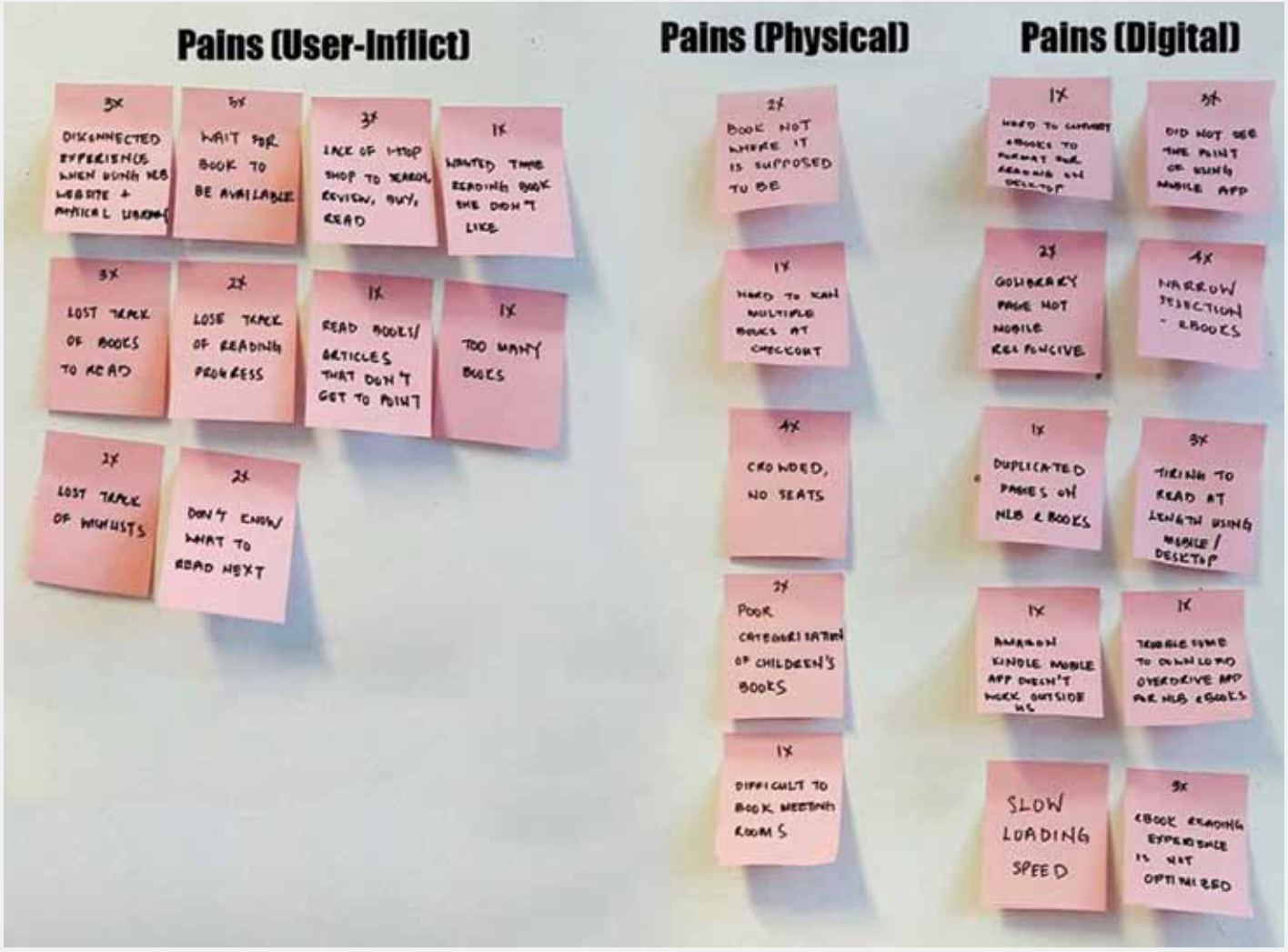
3. Sort ideas into groups and create headers.



4. Note down findings as groups to ideate on later.

Example

Affinity Diagrams



SOURCE: https://medium.com/@tanlauren/the-nlb-android-app-50a34b2edf02

2 Brainstorming

What?

Brainstorming is a great way to come up with a lot of ideas that you would not be able to generate by just sitting down with a pen and paper. The intention of brainstorming is to leverage the collective thinking of the group, by engaging with each other, listening, and building on other ideas. Conducting a brainstorm also creates a distinct segment of time when you intentionally turn up the generative part of your brain and turn down the evaluative part

How?

Be intentional about setting aside a period of time when your team will be in "brainstorm mode" – when the sole goal is to come up with as many ideas as possible, and when judgment of those ideas will not come into the discussion. Invest energy into a short period of time, such as 15 or 30 minutes of high engagement. Get in front of a whiteboard or around a table, but take an active posture of standing or sitting upright. Get close together. Write down clearly what you are brainstorming. Each person will write down each of his or her ideas as they come, and verbally share it with the group. It is great to do this with post-it notes, so you can write your idea and then stick it on the board.

STEP-BY STEP

Step 1. Pass out pens and Post-its to everyone and have a large piece of paper, wall, or whiteboard on which to stick them.

Step 2. Pose the question or prompt you want the group to answer. Even better if you write it down and post it.

Step 3. As each person has an idea, have her describe to the group as she puts her Post-it on the wall or board.

Step 4. Let nobody defend it but give enough time for everyone to voice their opinion and views on it. This let inspiration happens and more ideas follow from the discussion. It is important to build on each other's ideas.

Step 5. Each person put their ideas, moves to the next person and completes atleast one round.

Step 6. Generate as many ideas as possible.

Example

Brainstorming

SOURCE: http://www.borgenmagazine.com/human-centered-design-ideo-orgs-designkit/

3 Card Sorting

What?

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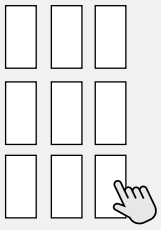
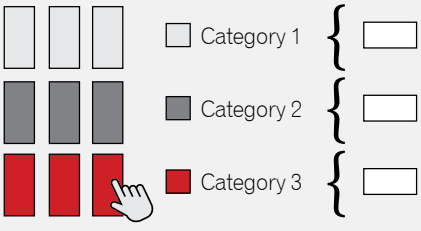
STEP-BY STEP



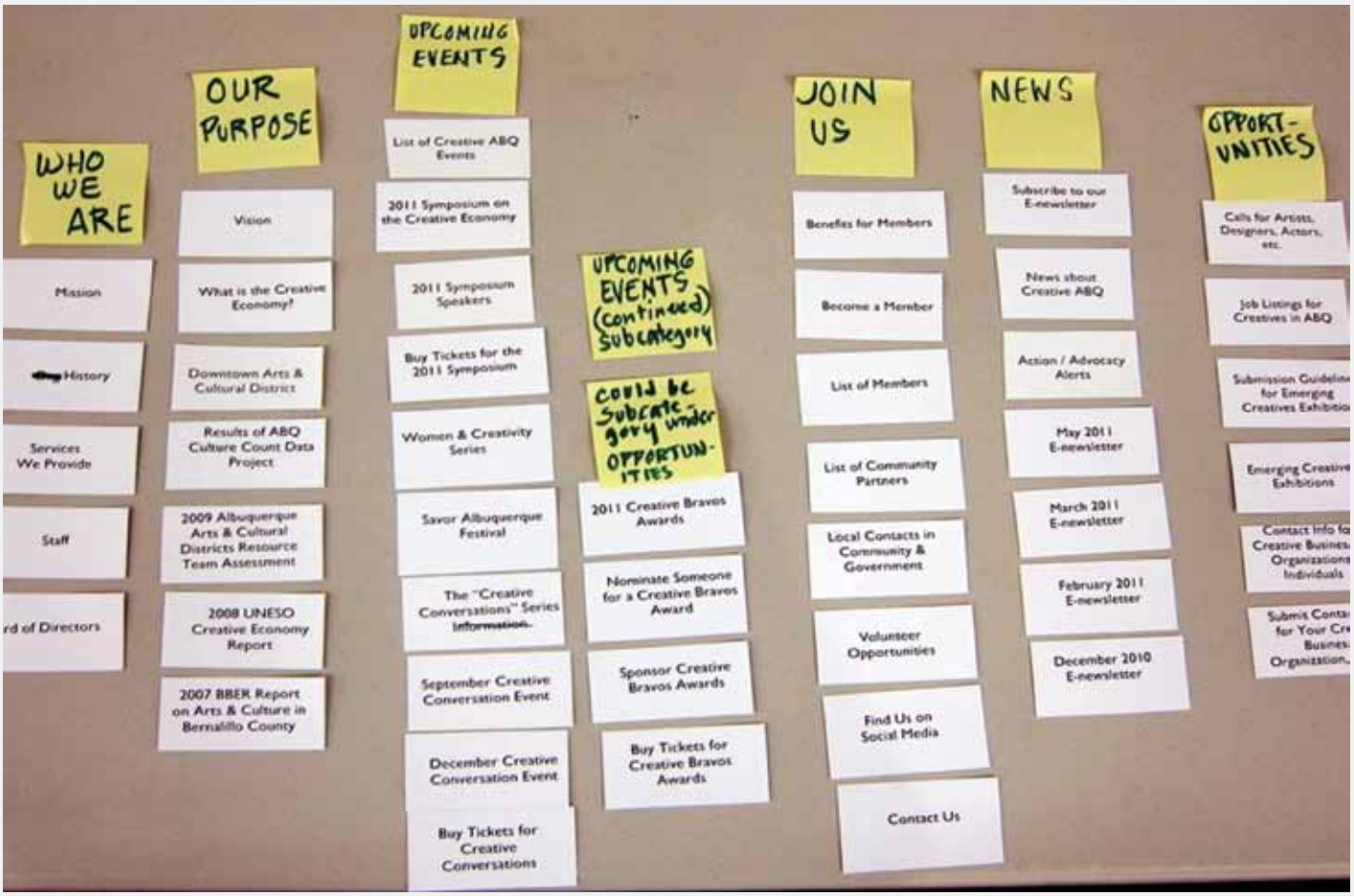
1. Collect an unsorted pile of cards. (Use post-its or small pieces of paper.)



2. Form clusters of cards that you feel are related. Each cluster forms a category.

Example

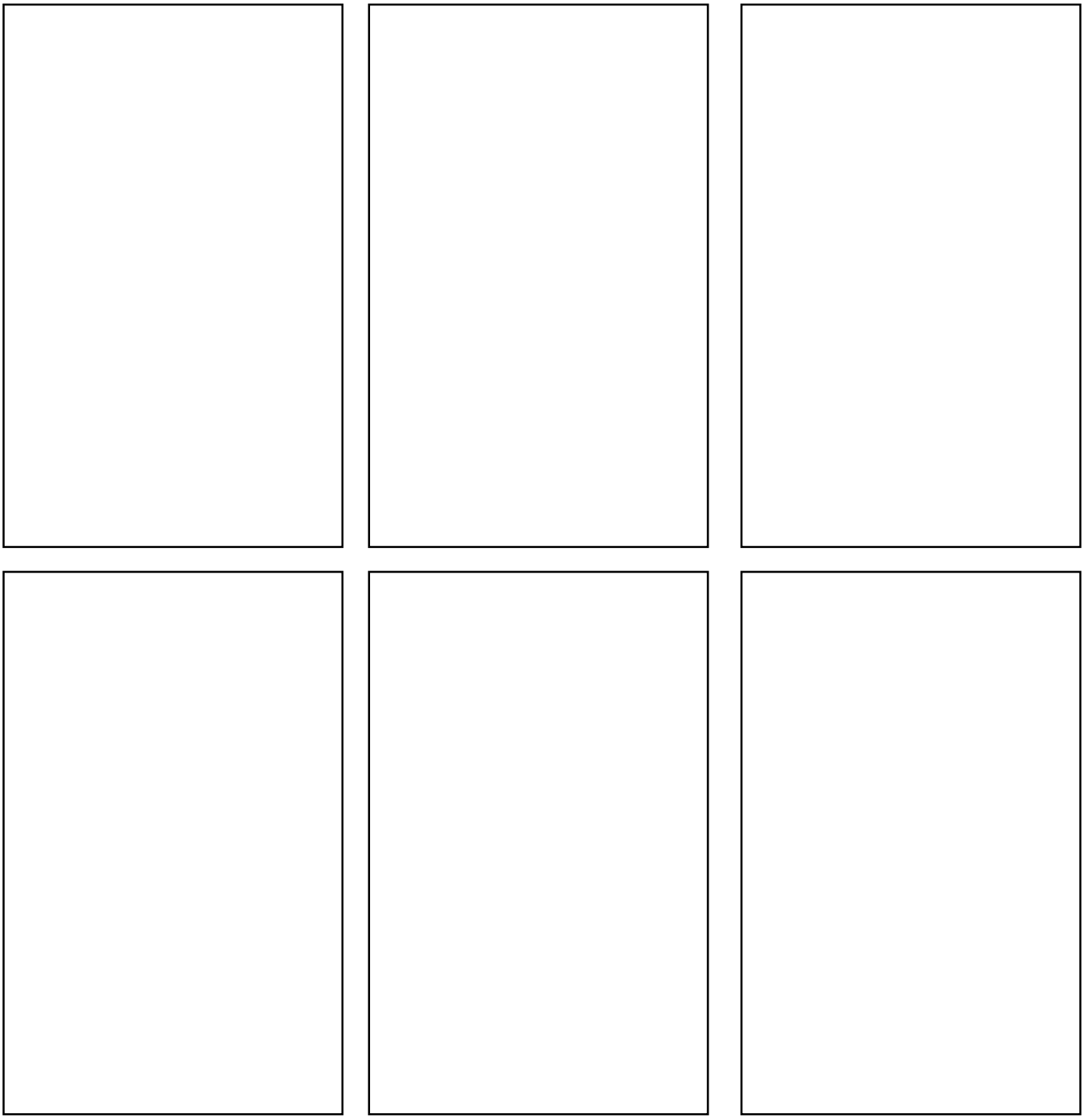
Card Sorting



SOURCE: http://www.fostermilo.com/articles/card-sorting-with-creative-albuquerque

Card Sorting

Small editable word cards



4 Contextual Inquiry

What?

Contextual enquiry is a type of interview for gathering field data from users. It is usually done by one interviewer speaking to one interviewee (person being interviewed) at a time. Interviewees are interviewed in their context, when doing their tasks, with as little interference as possible. Data that is gathered should be raw, and analysed only after the process is complete.

How?

The Contextual enquiry has four stages :

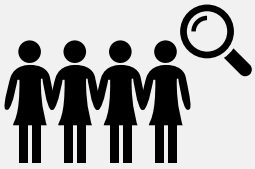
Context - Observe the stakeholder in their environment (ex. workplace) and watch them do their work.

Interpretation - Develop a shared understanding about the objective and formalise a set of questions around the objective

Inquire - Conduct the enquiry, keeping in mind the objective and stimulate the questioning

Analyse - Create empathy maps as described earlier to analyse the insights

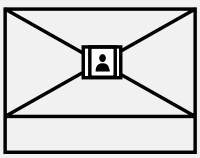
STEP-BY STEP



1. Observe the stakeholder in their environment

2. Develop a shared understanding about the objective and formalise a set of questions around the objective

3. Conduct the enquiry.



4. Create empathy maps to analyse the insights

Example

Contextual Inquiry

SOURCE: https://www.youtube.com/watch?v=l0kISGj51o4

Contextual Inquiry

DATE: NAME:

TYPE OF ACTIVITY: ☐ Group Interview ☐ In-Context Immersion ☐ Individual Interview ☐ Other

LOCATION:

KEY OBSERVATIONS	INTERESTING STORIES OR MOMENTS
INSIGHTS & SURPRISES	NEW TOPICS OR QUESTION TO EXPLORE IN FUTURE INTERVIEWS

5 Empathy Map

What?

An empathy map is a collaborative tool that teams can use to gain a deeper insight into their customers.

How?

UNPACK: Create a four quadrant layout on paper or a whiteboard. Populate the map by taking note of the following four traits of your user as you review your notes, audio, and video from your fieldwork:

SAY: What are some quotes and defining words your user said?

DO: What actions and behaviors did you notice?

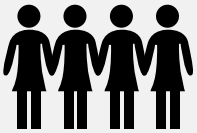
THINK: What might your user be thinking? What does this tell you about his or her beliefs?

FEEL: What emotions might your subject be feeling?

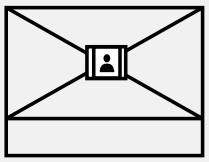
Note that thoughts/beliefs and feelings/emotions cannot be observed directly. They must be inferred by paying careful attention to various clues. Pay attention to body language, tone, and choice of words.

Analysis of the 4 quadrants helps you understand the users pains and gains

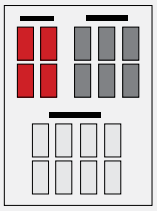
STEP-BY STEP



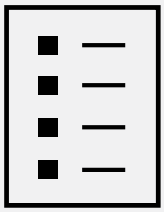
1. Observe the stakeholder in their environment.



2. Handover empathy map templates to team members.



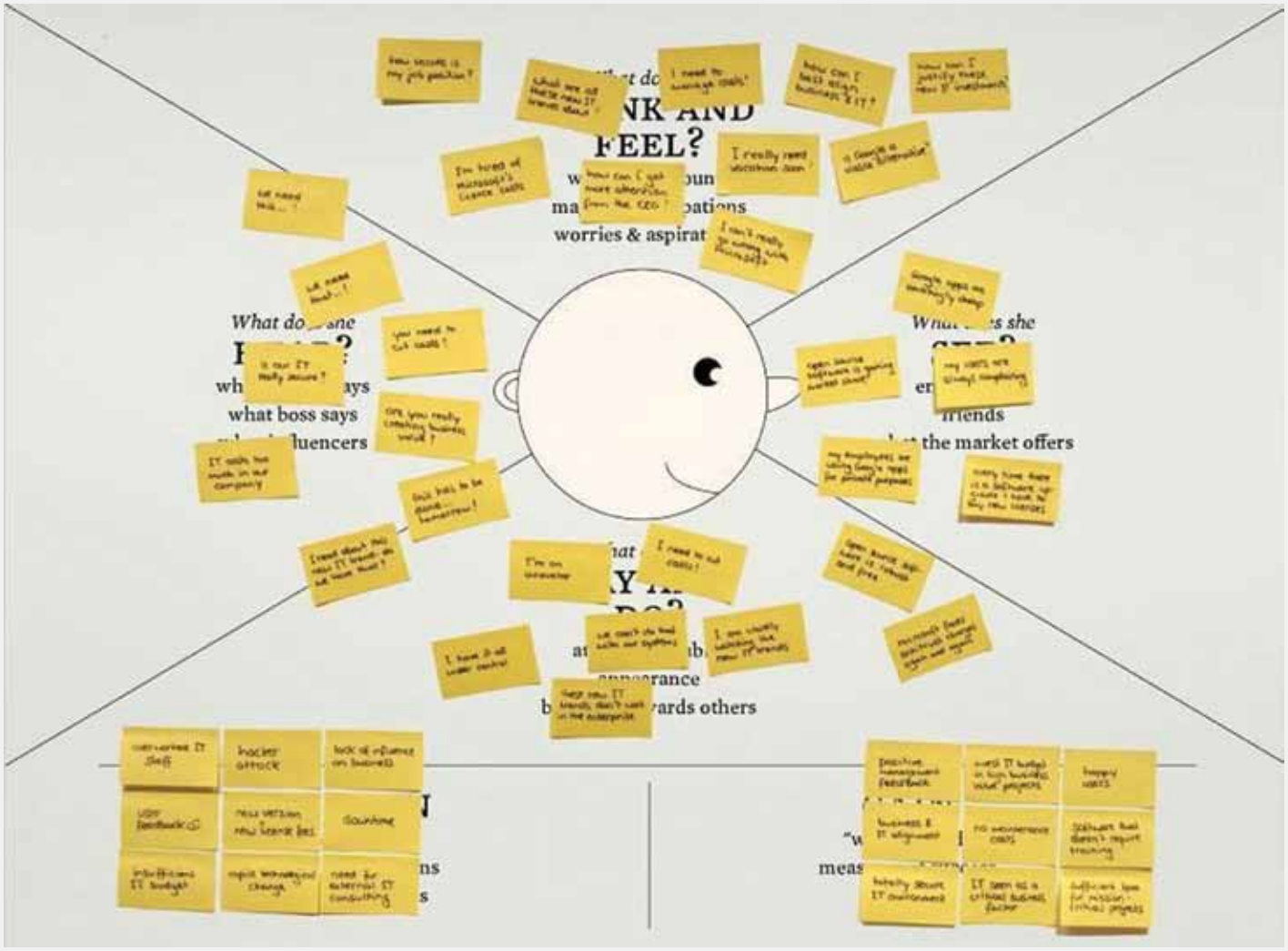
3. Sort Ideas into groups and create header cards.



4. Note down findings as groups to ideate on later.

Example

Empathy Map



SOURCE: https://glennas.wordpress.com/2010/08/02/developing-deep-insight-into-your-customers-xplanes-empathy-maps/

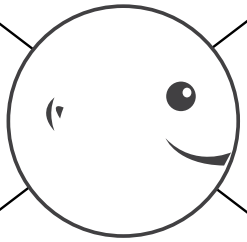
Empathy Map

#EmpathyMap

event name:	stakeholder:	day	month	year
designed for:	designed by:	version		

what does (s)he
THINK & FEEL?
what realy counts major
preoccupations worries &
aspirations

what does (s)he
HEAR?
what friends say
what boss says
what influencers say



what does (s)he
SEE?
environment
friends what the
market offers

what does (s)he
SAY & DO?
attitude in public appearance
behaviour towards others

pains
fears
frustrations
obstacles

gains
"wants"/needs
measures of success
obstacles

6 Experience Map

What?

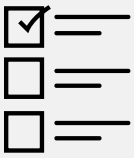
An experience map is a visual representation of the story of an individual's journey through a process or experience from his/her own perspective. It contains interactions between the user and the business/ service mapped out across a timeline. It helps highlight various touch-points and how the user responds to them and is usually made when you have sufficient insight and information on customer or stakeholder.

How?

Start by listing down the touchpoints and channels between the stakeholder and the business/process at hand. Touchpoints are activities/tasks that create stakeholder-business interaction and channels are various means available of achieving those tasks (Ex: Employee needs get a grievance redressal; he/she does it through email/ online portal or in person). Now, brainstorm on the experience of the stakeholder on each touchpoint around- Happy Moments, Pain Points, Questions and opportunities and arrange insights in the template provided.

STEP-BY STEP

1. Conduct focus group discussions to gain insight on experience, expectations etc.



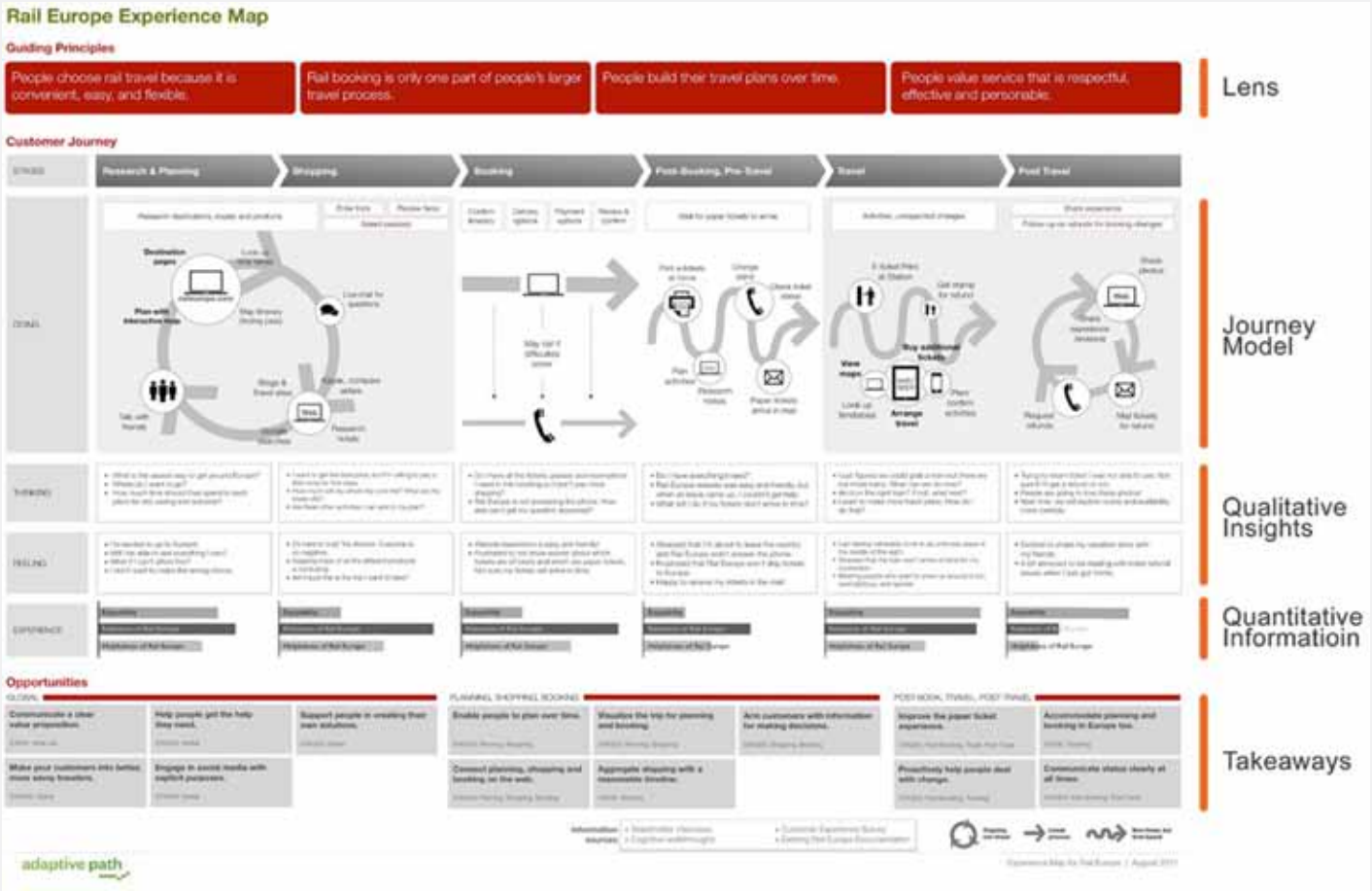
2. List down touch points and channels, covering start-to-end.

3. Brainstorming on each of the touch points as listed.

4. The insights are listed as down as a map (refer to template)

Example

Experience Map



SOURCE: http://uxmastery.com/ux-marks-the-spot-mapping-the-user-experience/

Experience Map

TITLE	
PHASE	
TOUCH POINT	
GOALS	
MINDSET	
EXPERIENCE	
EMOTION	
END	

7 Extreme Users

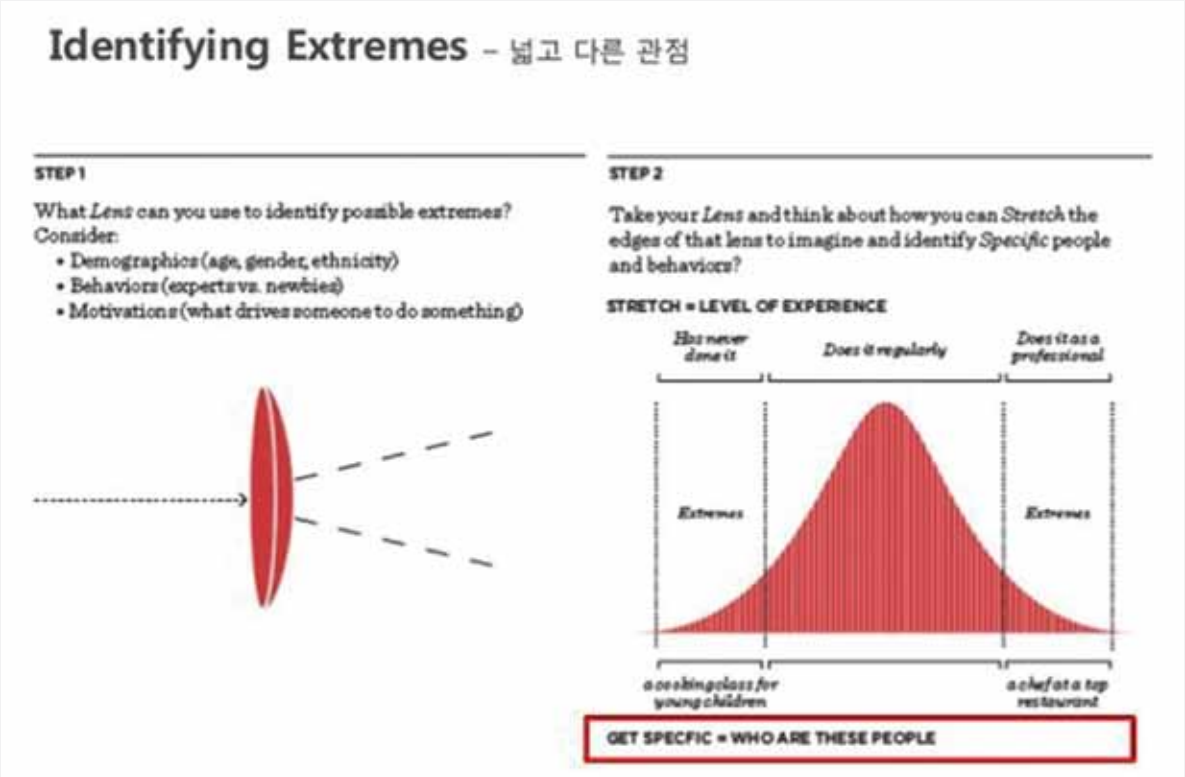
What?

It is critical to engage with users (people!) to understand their needs and gain insights about their lives. We also draw inspiration from their work-arounds and frameworks. When you speak with and observe extreme users, the needs are amplified and their work-arounds are often more notable. This helps you pull out meaningful needs that may not pop when engaging with the middle of the bell curve. However, the needs that are uncovered through extreme users are often also needs of a wider population.

How?

Determine who's extreme

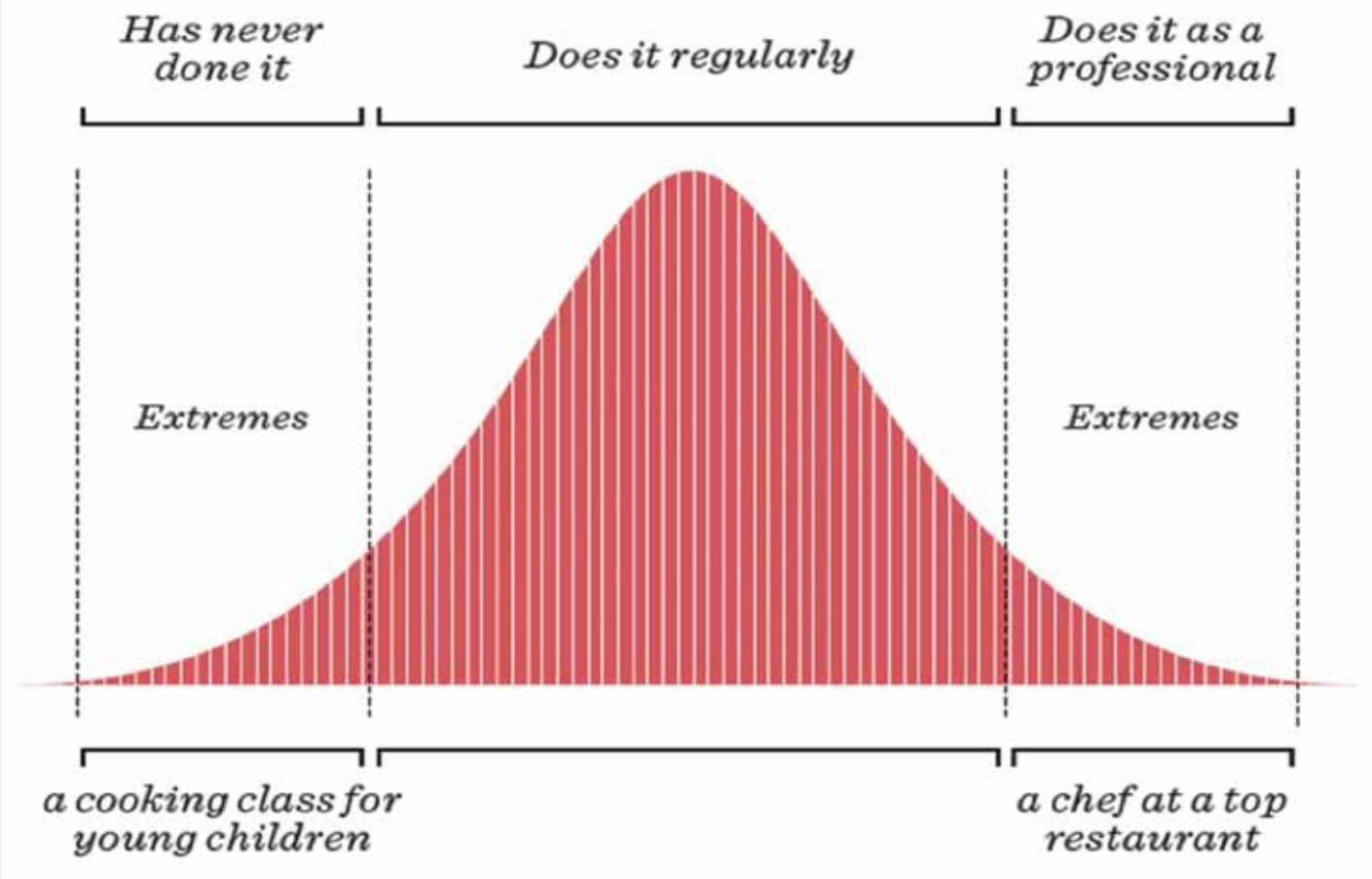
Determining who is an extreme user starts with considering what aspect of your design challenge you want to explore to an extreme. List a number of facets to explore within your design space. Then think of people who may be extreme in those facets. For example, if you are redesigning the grocery store shopping experience you might consider the following aspects: how groceries are gathered, how payment is made, how purchase choices are made, how people get their groceries home, etc. Then to consider the aspect of gathering groceries, for example, you might talk to professional shoppers, someone who uses a shopping cart to gather recyclables (and thus overloads the cart), product pullers for online buyers, people who bring their kids shopping with them, or someone who doesn't go to grocery stores.



SOURCE: https://blog.prototypr.io/your-empathy-toolbox-ensuring-you-design-a-product-your-users-will-need-c3233c944c3?gi=9feb9fe9e5af

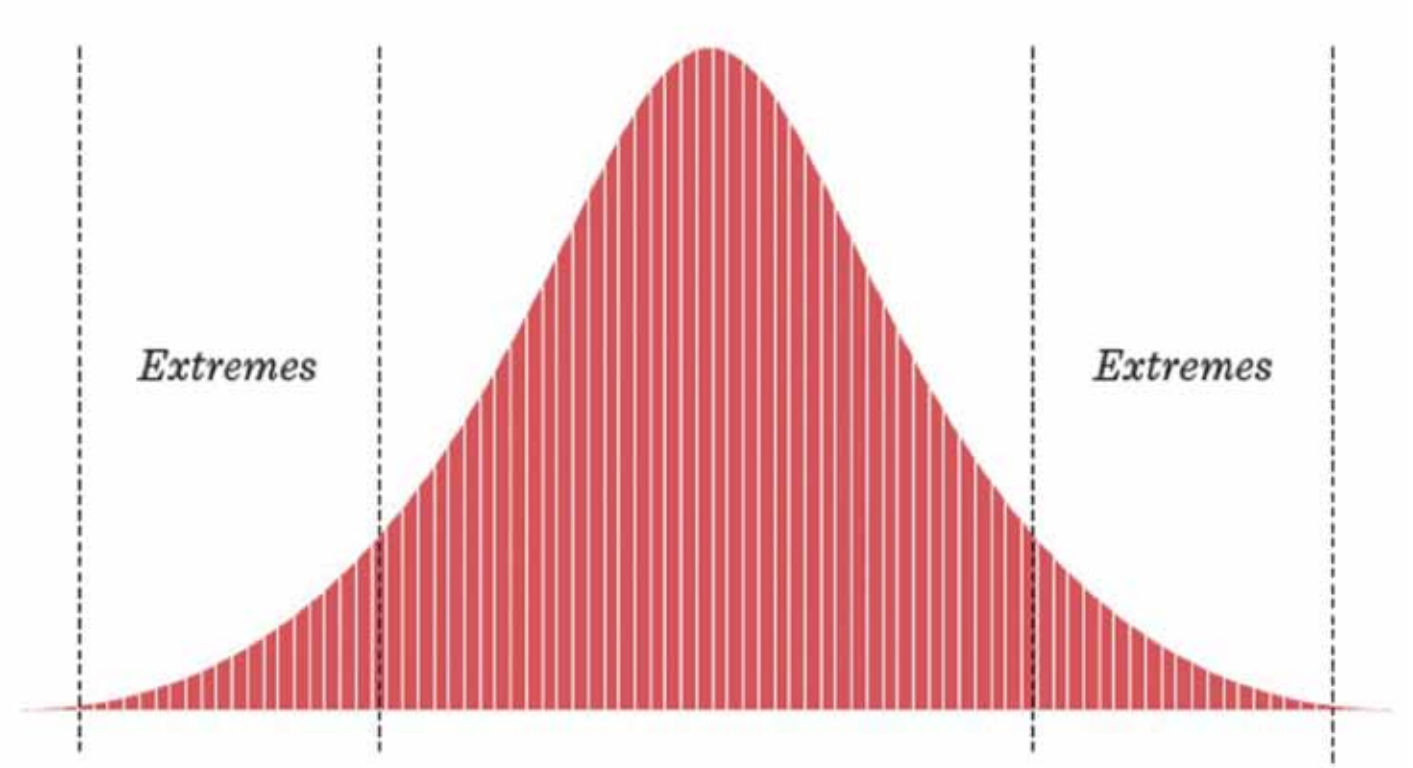
Example

Extreme Users



SOURCE: https://blog.prototypr.io/your-empathy-toolbox-ensuring-you-design-a-product-your-users-will-need-c3233c944c3?gi=9feb9fe9e5af

Extreme Users



8 Future Scenarios

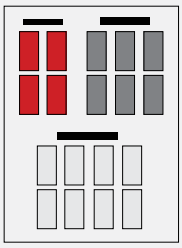
What?

A scenario is a 'story' illustrating visions of possible future or aspects of possible future. Scenarios are not predictions about the future but rather similar to simulations of some possible futures. They are used both as an exploratory method or a tool for decision-making, mainly to highlight the discontinuities from the present and to reveal the choices available and their potential consequences. To be effective, scenarios must be plausible, consistent and offer insights into the future.

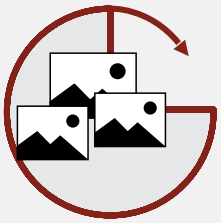
How?

A set of key words or trends that are associated with the objective are laid out, contextualised to a timeframe that is predetermined.. The data for this exercise may be derived from empathy maps, and/or surveys, feedbacks and past reports. Be sure to keep the key words, definite and non-generic. The words are then arranged to form an understanding of the objectives, and the context is written down in the form of a narrative, ideally by the person doing the exercise.

STEP-BY STEP



1. Start with trend clusters from an exercise such as affinity mapping or card sorting.



2. Visualise multiple scenarios around each trend cluster and findings.

3. Put your ideas down in the form of a narrative or story. These can be multiple scenarios with overarching guiding themes.

4. Brainstorm and take feedback on the narratives and compile the scenarios and themes into one scenario narrative.

Example

Future Scenarios

Picture of brainstorming session aligning trends on a scenario map.

9 Horizon Mapping

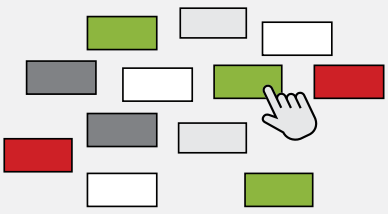
What?

Horizon Mapping is a technique for detecting early signs of potentially important developments through a systematic examination of potential threats and opportunities, with emphasis on new technology and its effects on the issue at hand. It explores novel and unexpected issues as well as persistent problems and trends, including matters at the margins of current thinking that challenge past assumptions.A horizon chart is then created using the above mentioned trends to create a representation of where a trend lies in its lifecycle.

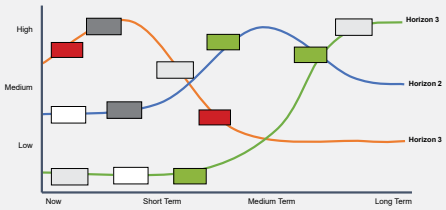
How?

The Popular Media Scanning tool is first used to find relevant trends if not done already. Each trend is then noted down on a post it each and the horizon chart template is drawn out on a whiteboard or an A2 sheet. The trends are then placed on different parts of the three curves depending on two things, one, where you see them on the timeline, i.e. the 3 curves- whether they are Current Drivers and Trends (H1), Emerging Drivers of Change (H2) or Weak signals of emerging drivers of Change (H3) and two, how much of an impact will they have at that given time- High, medium or low.

STEP-BY STEP



1. Write down all trends on one post it each



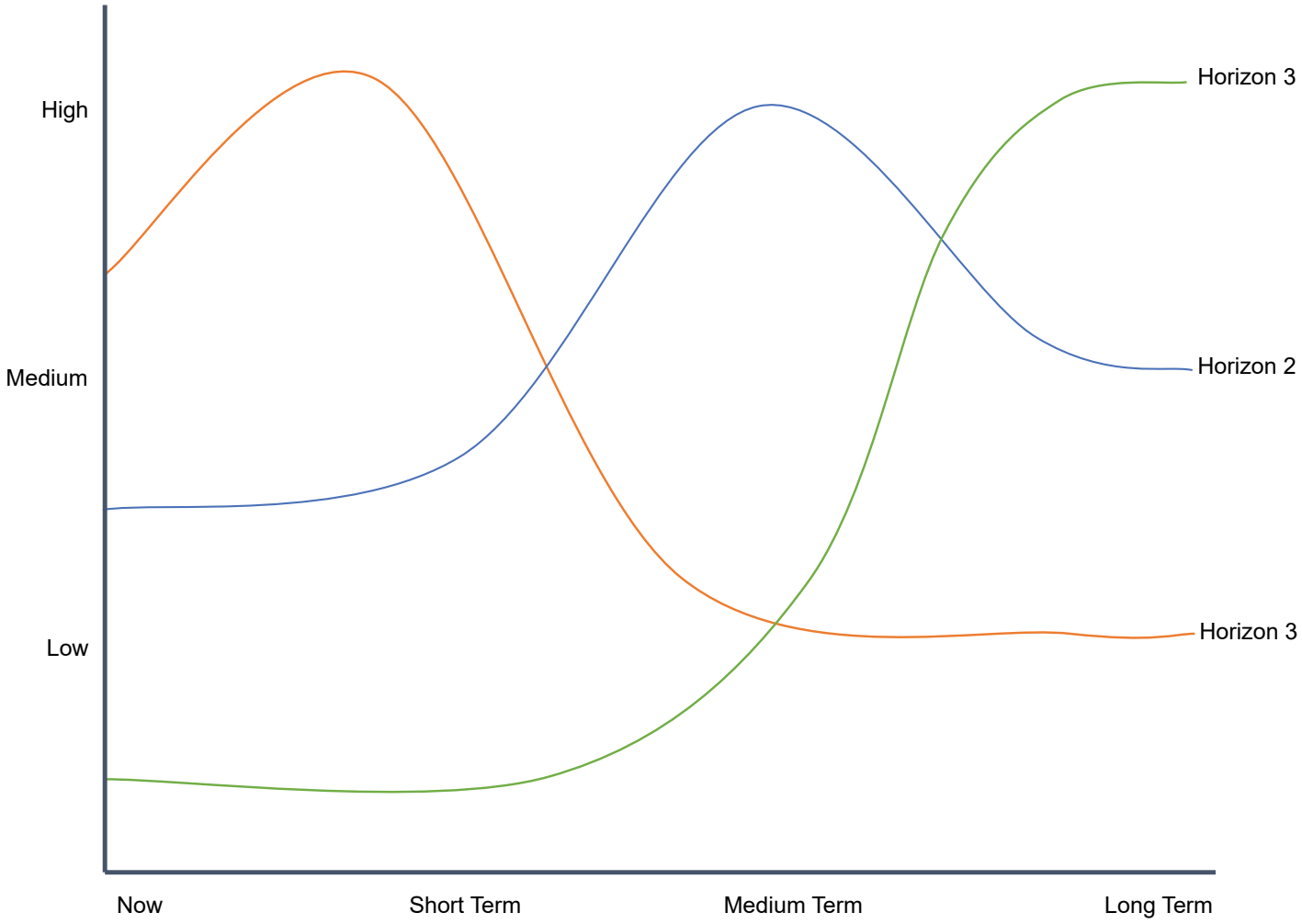
2. Arrange the trends on the horizon lines.

Example

Horizon Mapping

Picture of the outcome of a Horizon Mapping exercise. Fairly certain/ definite trends were arranged on the horizon lines first and were then used as reference to plot other trends on the graph.

Horizon Mapping



10 How Might We

What?

The How Might We statement helps define what your project might and might not be and hence, should aimed at being neither being too broad or narrow at this point. Think of it as a frame that you need to create which helps you define the boundaries in terms of themes and problem spaces that you need to explore, but at the same time stays broad enough to allow for new ideas to emerge.

How?

To write a How Might We statement, you need to reiterate your hypothesis statements from the Define section into questions that are suggestive of design interventions.

STEP-BY STEP

Step 1. Turn your Hypothesis statement(s) into question(s).

Step 2. Assess if the question(s) allows for a variety of solutions. If it doesn't, you'll have to broaden it.

Step 3. Similarly, check if the question(s) is too broad to give you any direction.

Step 4. You should end up with question(s) that provide you with

Example

How Might We

SOURCE: https://dschool.stanford.edu/resources/how-might-we-questions

How Might We

HOW MIGHT WE _____

help/create

BY _____

providing them with

SO THEY CAN _____

realize a benefit

11 Idea Blitz using 7/3/5 Technique

What?

This technique is useful in developing high volume of new ideas using a focused brain storming technique. The objective of the Idea Blitz is to focus on the problem area and the solution space with a very high intensity and speed. It encourages team members to come up with ideas in less than 20 min. The focus here is to enable the idea generation process at an individual level before the collective group think can be leveraged. This technique is particularly useful after the HMW statement and the insights have been realized.

7 / 3 / 5 stands for 7 people using 3 minutes to generate minimum 5 ideas each.

How?

The ideal cross functional group size for this activity is 6 to 9 team members. It is necessary that the problem area for which solutions are being determined is pre known and investigated completely prior to this session happening. One team member is appointed as a curator for the activity. A timer is started for 3 min duration with a prior expectation that each team member will write a new idea on a post it note. And atleast have 5 of them in 3 minutes. It is played out as a race to complete. This is an individual activity where there is no assessment of the ideas.

On a round robin basis, each team member now shares each idea and pasts the same on a white board or chart paper. The next team member repeats the same activity but also starts pasting the post it note in similar or logical themes. Other team members need to listen attentively and not critique any idea.

The group may now decide to repeat this exercise one more time to build on the ideas generated.

Multi-voting, dot voting and prioritization matrix could be used to shortlist the ideas and select the high potential ones.

STEP-BY STEP

Step 1. Write down each idea on a separate Post-It note for (5 mins)

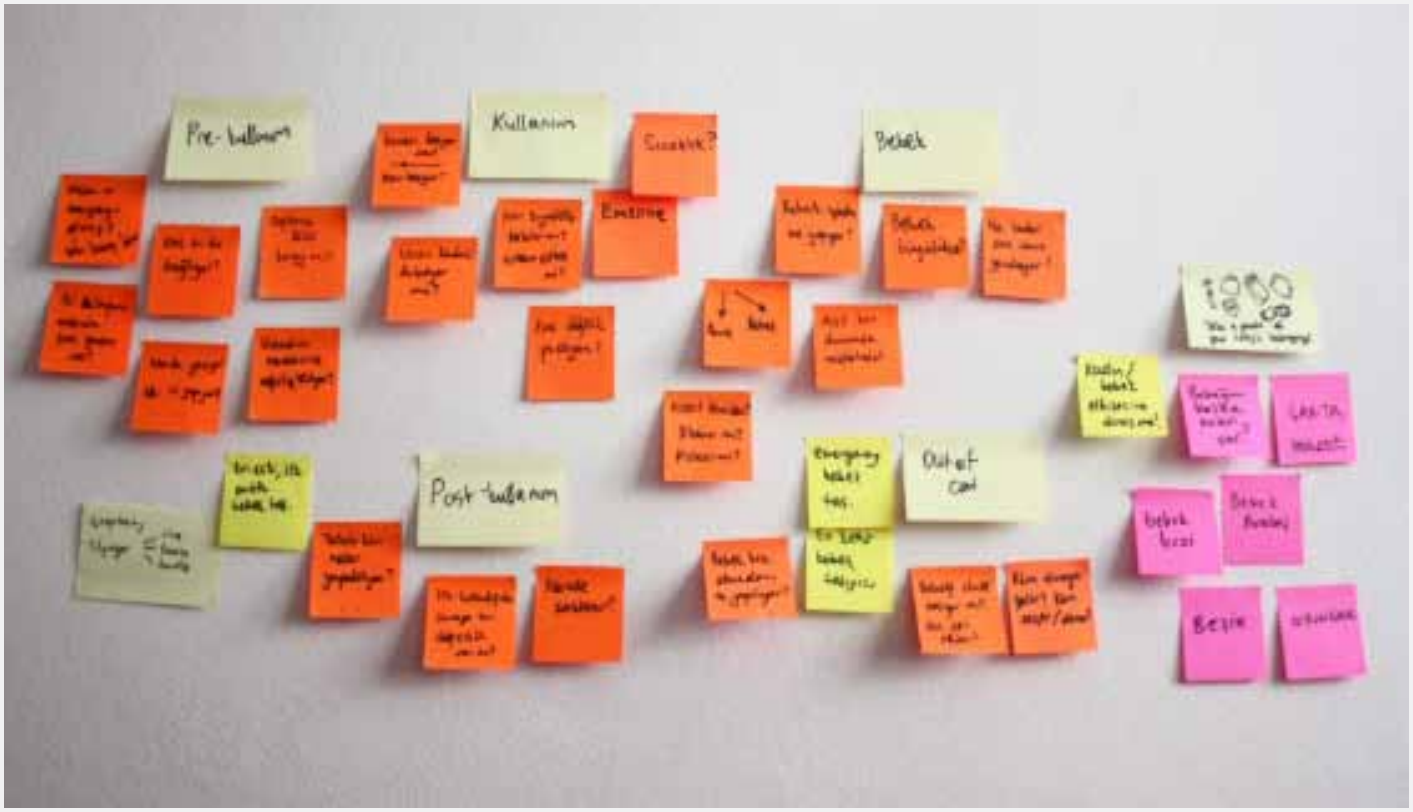
Step 2. After 5 minutes post them on the common group template one by one, saying out the idea loudly.

Step 3. Seek clarification for the idea being described, without judging it.

Step 4. Cluster similar ideas together

Example

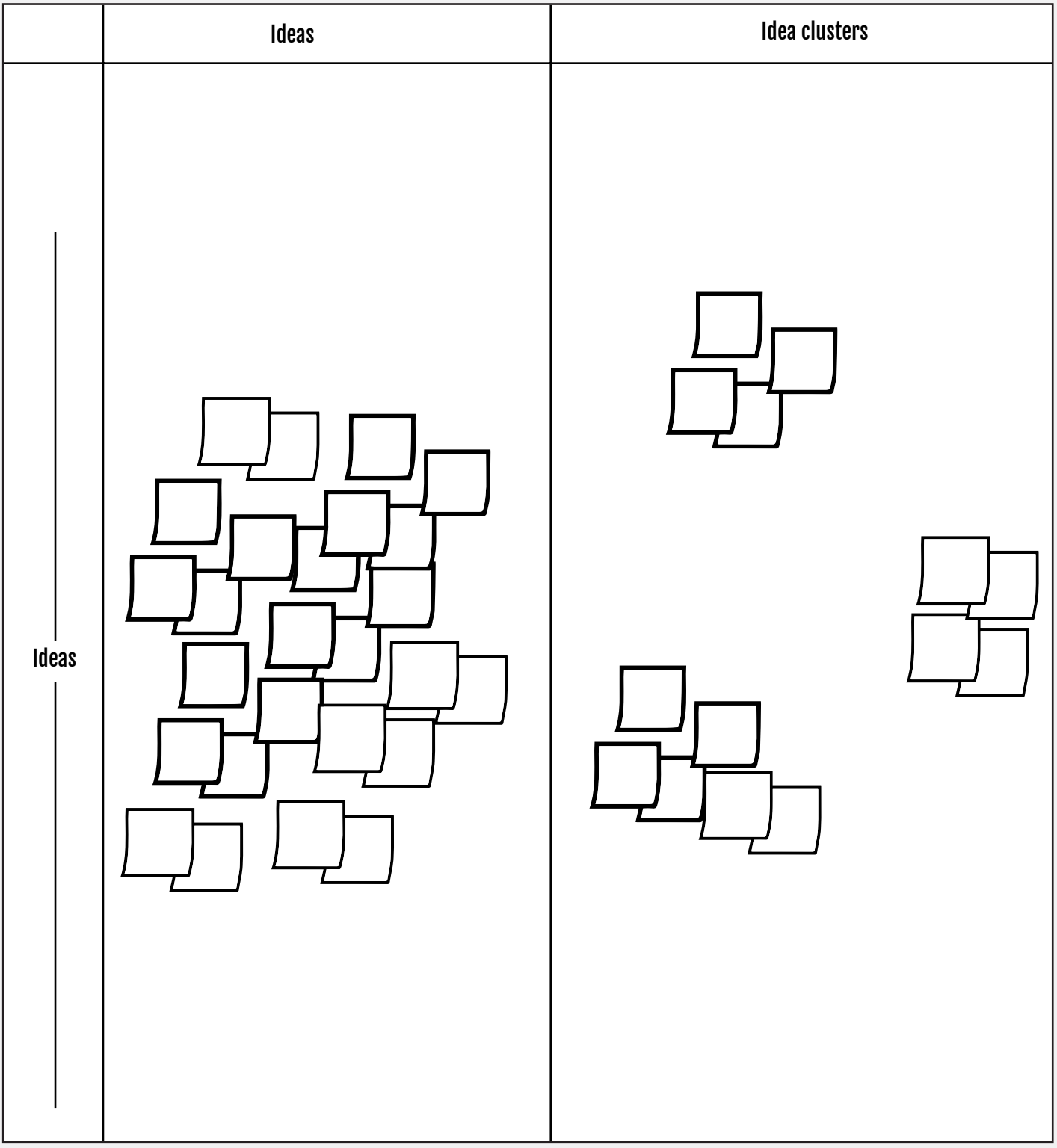
Idea Blitz using 7/3/5 Technique



SOURCE: http://www.kennyjahng.com/lead-brainstorming-meetings-how-to/

Example

Idea Blitz using 7/3/5 Technique



TRANSFER TO TEAM WORKSHEET FOR DISCUSSIONS

Idea Blitz using 7/3/5 Technique

	Ideas	Idea clusters
Ideas		

TRANSFER TO TEAM WORKSHEET FOR DISCUSSIONS

12 Innovation Probes

What?

Innovation probes act as imagination boosters to convert the existing ideas into more imaginative ideas by triggering thought vectors in a particular direction. This results into higher levels of creativity and discovery of new theme or concepts that can be leveraged to generate innovative ideas.

Essentially the innovation probes are statements that when added to the current ideas can transform or modify them. These probes or statement are –

Ideas -

- Never tried out by our competitors within the country or globally
- Drawing inspiration from nature
- That are part of science fiction
- From the eyes of an 8 year old child
- Drawing inspiration from non-related areas like- agriculture, Hotel, FMCG IT, BFSI, Textile, shipping, manufacturing, call centers etc.
- Using Inversion or reversal of the problem statement or solution identified earlier
- Using Ideal state- no cost involved AND can be implemented tomorrow AND acceptable to all AND is a delighter.

How?

First write down the solution ideas that you and your team have generates on the LHS column provided in the template. You could preferably use post it notes to list these ideas. The initial ideas could be generated from the Idea Blitz used earlier.

Now one at a time pick up a certain idea and read the Innovation probes to generate another idea. List this new idea on a post it note and paste is on the RHS column of the template. Target generating atleast one ideas per probe. Some of the ideas would be very imaginative and creative – but not practical but continue to jot them down.

Build on these imaginative ideas to siphon out a concept and use is to come up solutions which are practical in nature. Total activity time is less than 30 min.

Multi-voting, dot voting and prioritization matrix could be used to shortlist the ideas and select the high potential ones

STEP-BY STEP

Step 1. Individually subject each of your ideas generated to the Innovation grid to boost creativity

Step 2. Read each item and use it to trigger a thought vector to generate new ideas. You can use multiple triggers for the same idea.

Step 3. Document these new ideas in the template and separate Post It Notes.

Step 4. Share the ideas with the team on the Idea template

Example

Innovation Probes

Existing Ideas	Innovation Probes	New Ideas
Use new digital media to pitch to the client stakeholders.	*Never tried by our competitors in India or Globally*	Use holographic images
Attract newer clients using an integrated view of the current offerings.	*Drawing inspiration from nature is part of science fiction*	Do quick 3D simulations using dummy data
Create a contest for people to self learn cutting edge technologies	*From the eyes of a 8 year old child*	Create a offering like a "bird dance" that changes color periodically – i.e.- showcase offerings based on specific needs dynamically.
Streamline on boarding using our current learning platform	*Drawing inspiration from other non related industries like- FMCG, Telecom, Hotel etc.*	Some "band or chip" is worn on hand that acts as a knowledge reservoir and projects information.
	Using inversion- reversal of the problem statement	On- boarding should be a play and self discovery process
	Using IDEAL State- no cost involved, can be implemented tomorrow, acceptable to all, and is a delighter.	

Innovation Probes

Existing Ideas	Innovation Probes	New Ideas
	Never tried by our competitors in India or Globally *Drawing inspiration from nature is part of science fiction* *From the eyes of a 8 year old child* *Drawing inspiration from other non related industries like- FMCG, Telecom, Hotel etc.* *Using inversion- reversal of the problem statement* *Using IDEAL State- no cost involved, can be implemented tomorrow, acceptable to all, and is a delighter.*	

13 Mind Mapping

What?

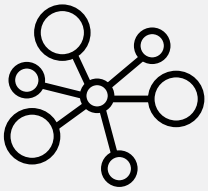
Graphical technique for visualizing connections between several ideas or pieces of information. Each idea or fact is written down and then linked by lines or curves to its major or minor (or following or previous) idea or fact, thus creating a web of relationships. Mind mapping can be utilised as an ideation exercise especially for rapid and creative idea generation.

How?

Start by writing the larger idea in the centre and begin expanding the map by adding related ideas and keywords around it and repeat the same process on each of the connections till you feel you have exhausted all relevant keywords. One mindmap can include all sorts of themes originating from one core idea/keyword and branches out into new theme spaces.

STEP-BY STEP

1. Write a word or phrase representing the objective.

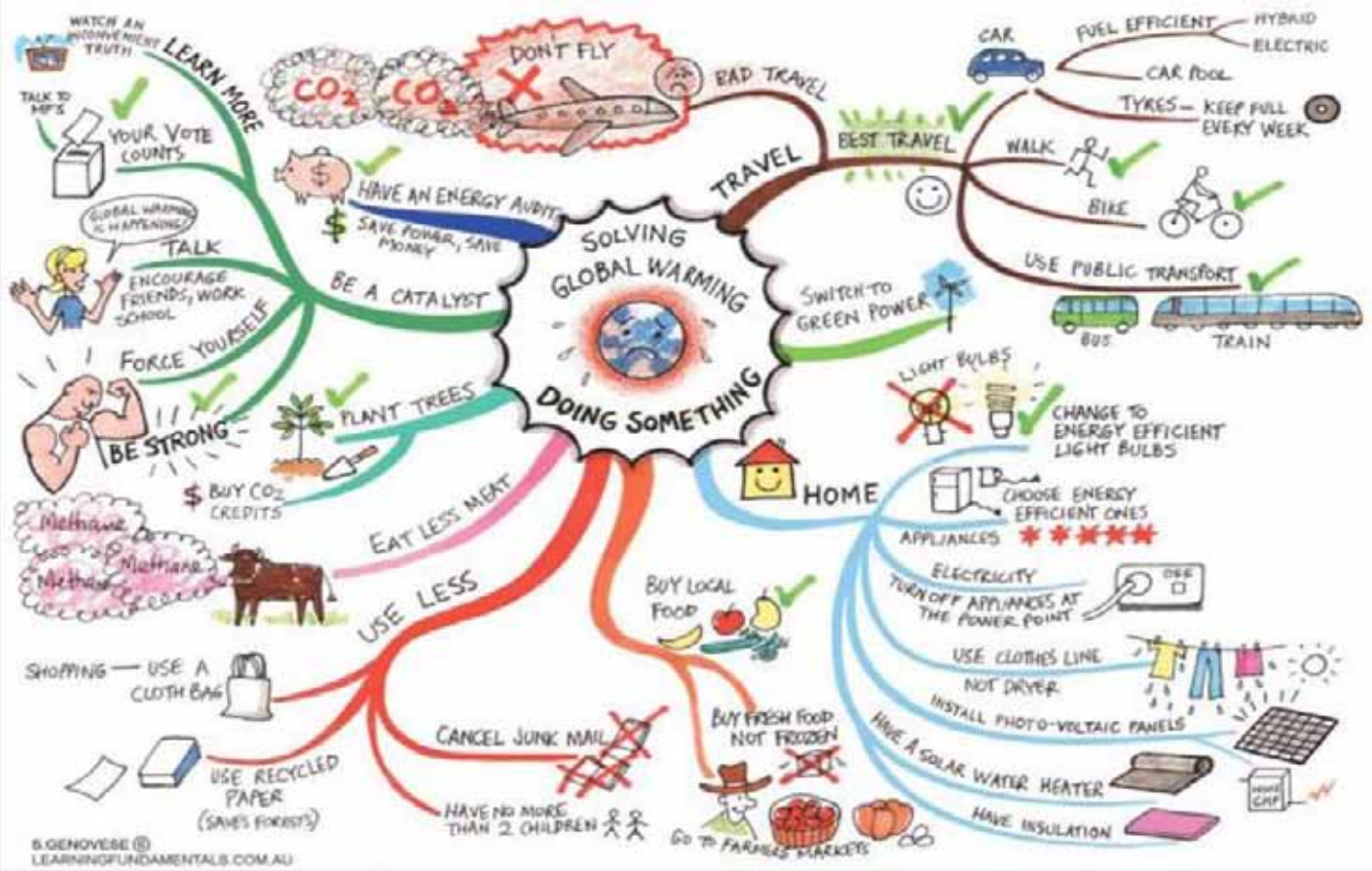


2. Create more branches as required and continue the process.

3. Write down ideas as they evolve.

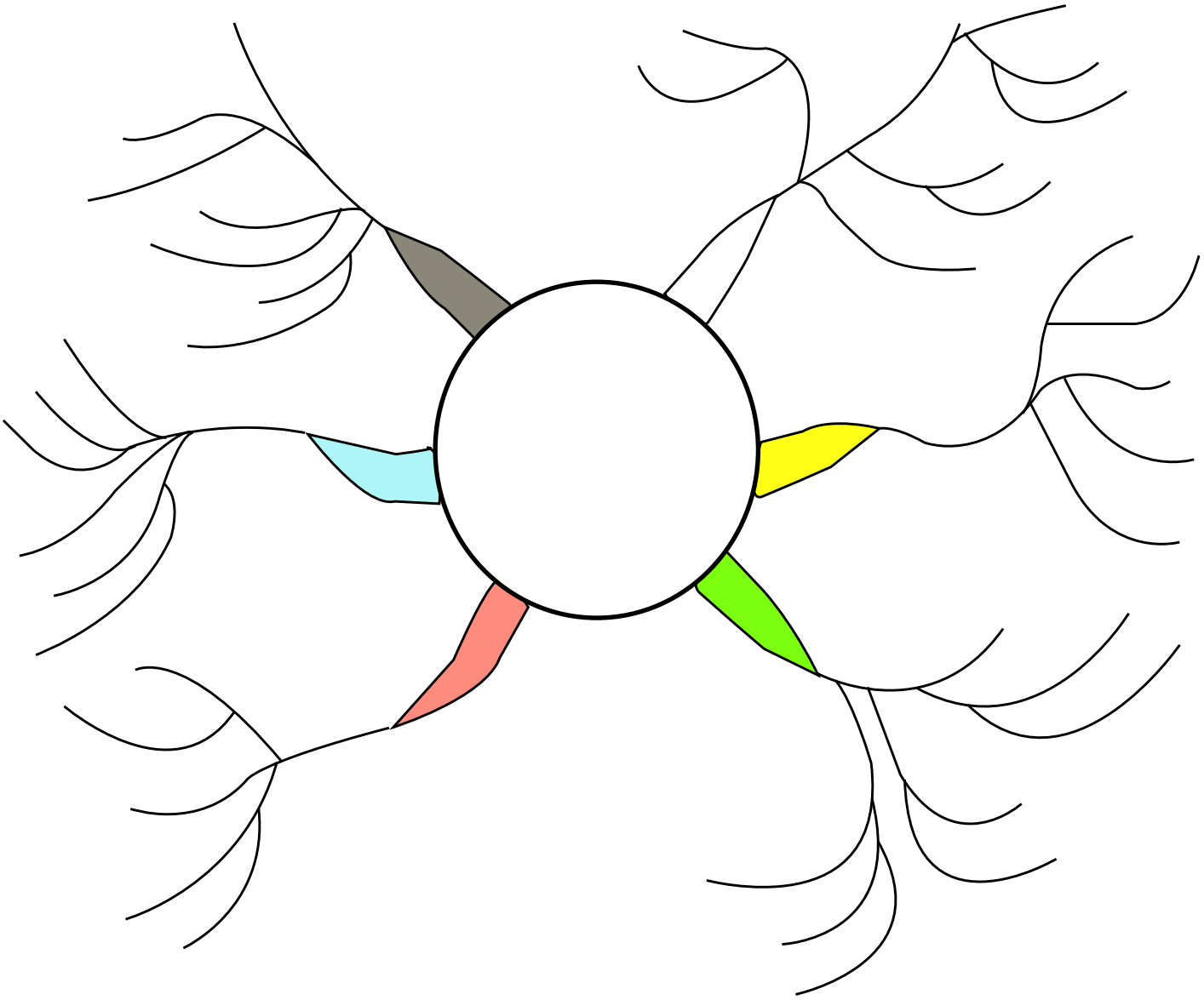
Example

Mind Mapping



SOURCE: https://mindmapsunleashed.com/10-really-cool-mind-mapping-examples-you-will-learn-from

Mind Mapping



14 Multiscreen Diagram

What?

A technique that helps in the visioning of the future state or design of the system or process in relation to its sub systems and the environment. A crystal ball to gaze into the future state of current system and processes. This technique uses a systems thinking based approach to predict the future trend of the design of a product or offering. As long as the ideas that are helping us move in this future direction we are on the right path.

Ideally this technique is used just after the design team has frozen the HMW statement and is now looking and new ideas.

How?

First we decide a system, product or process that you want to redesign as part of the HMW statement. This is mentioned in the center of the grid. For example we have a new employee onboarding process where we would want to transform the employee experience.

We mention this at the center of the grid. Post this we look at the subsystem- i.e. the elements which compose the system. For example the invite letters, staff from HR, Process documents, waiting room, orientation room, guides etc. Following this write down the elements in the super system that would compose of elements that do not directly take part in the system or process. For example in our case the other employees, security systems, IT systems, transport system are all in the super system of the onboarding process.

A similar analysis is conducted for a system that existed in the past- this was the hiring process only which was more manual, MS Excel based, hard copy printout based etc. Now as a team we look the transition from the past to the present and use the same momentum to vision the future state in another 2 years' time.

Design elements and it form are noted down in the templated grid on the RHS.

Recommended time for this group activity is 40 min.

STEP-BY STEP

Step 1. Individually subject each of your ideas generated to the Innovation grid to boost creativity

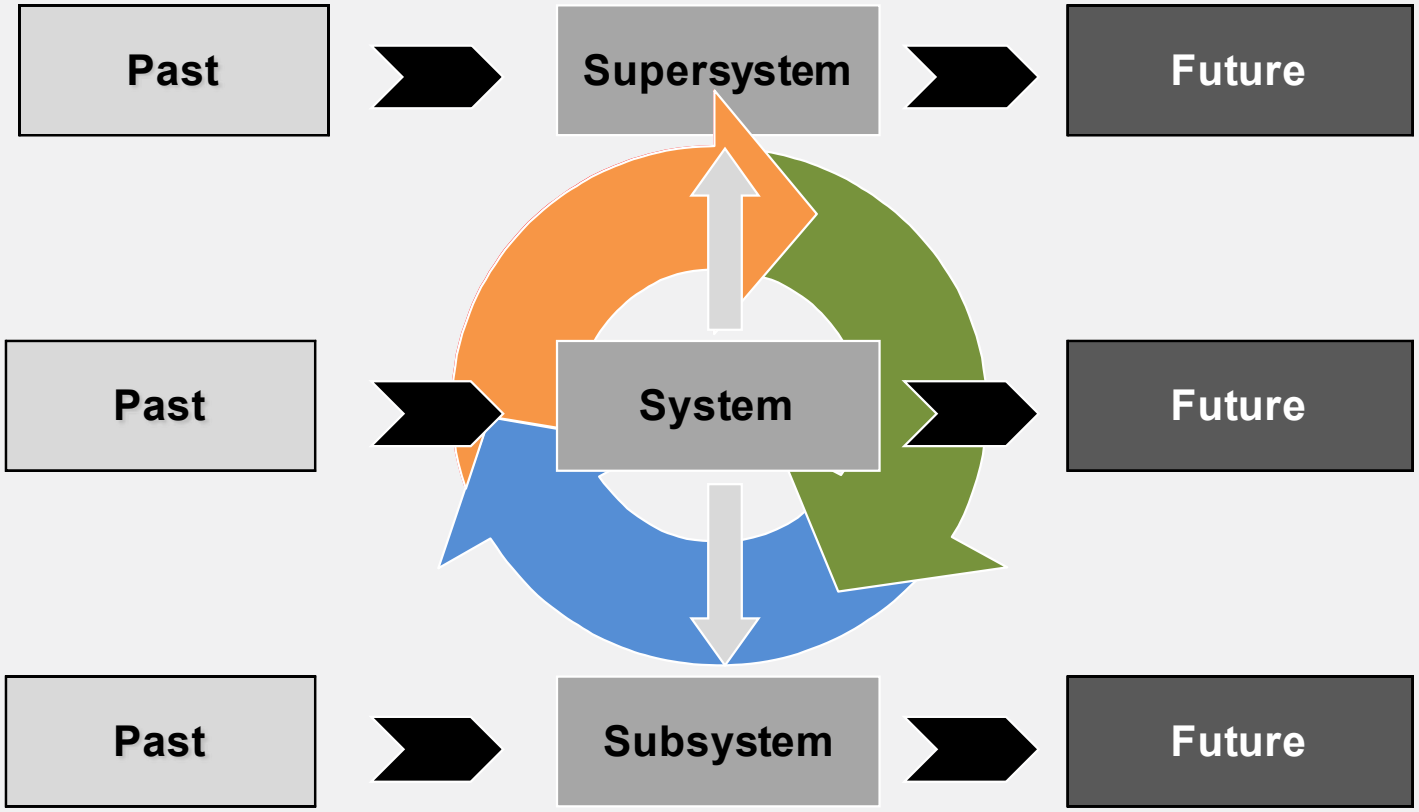
Step 2 Read each item and use it to trigger a thought vector to generate new ideas. You can use multiple triggers for the same idea.

Step 3. Document these new ideas in the template and separate Post It Notes.

Step 4. Share the ideas with the team on the Idea template

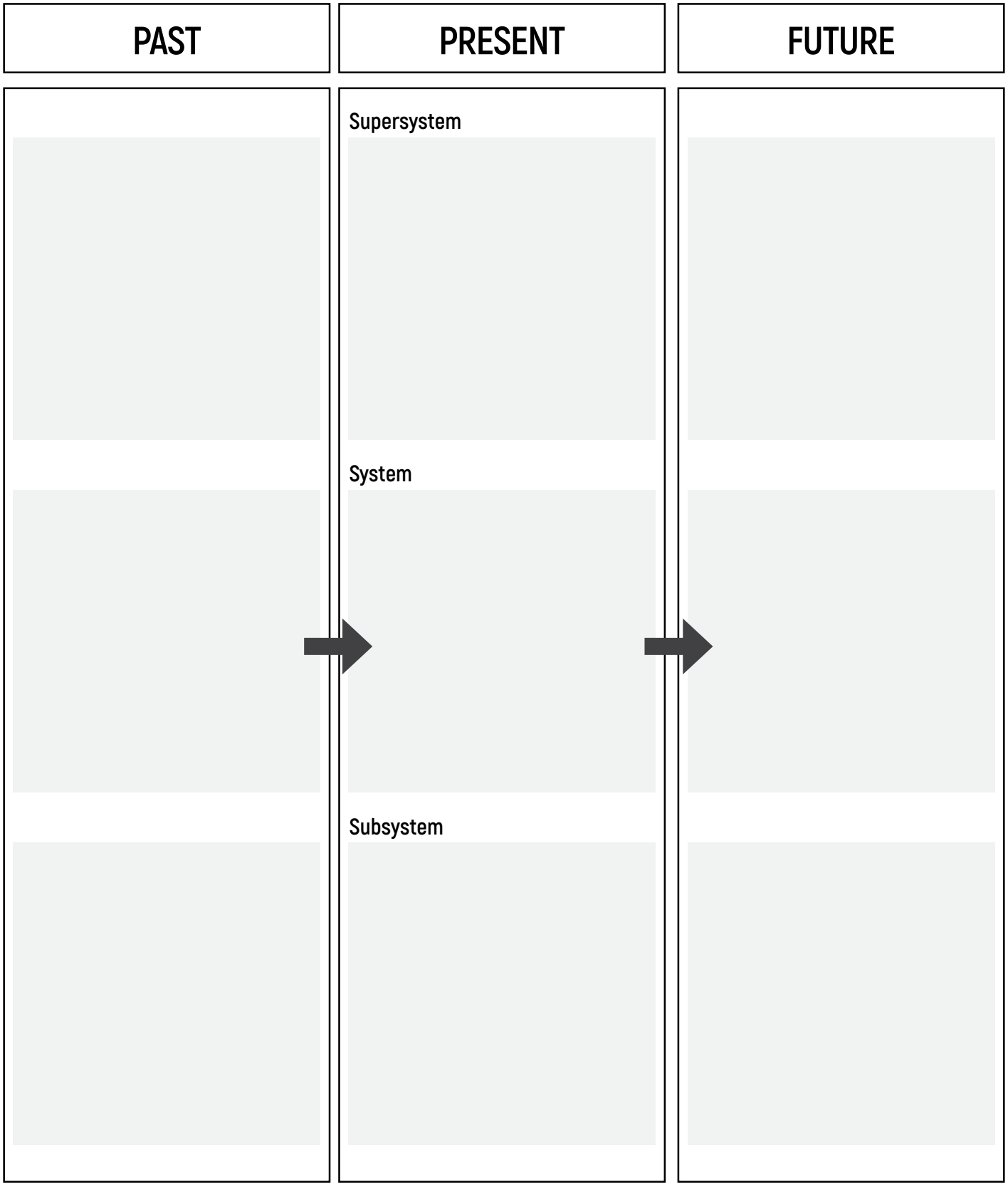
Example

Multiscreen Diagram



Past	Present	Future
	Supersystem IT Device users, servers, networks, CRM platform, support teams for resolution (3rd Party), Admin team, transportation team, IT Communications, Onsite support	IT Device users, Analyst, Program systems
Software, Servers, IT Device Users, Desktops, Support functions like HR, Trainer, QA		
Deskside support	**System** IT IS Infrastructure support	Self detection and Healing IT Systems
SME, Escalation team, paper folders, Excel files, Regular phone, email system, writing pen and pads	**Subsystem** Analysts, Remedy – CRM, ticketing tool, remote access tools, Escalation team, Knowledge base, ACD- Call routers, desktops, virtual phones, emails	KB, CMDB, AI to self learn and deploy best solution, IVR, IT Upgrades

Multiscreen Diagram



15 Persona

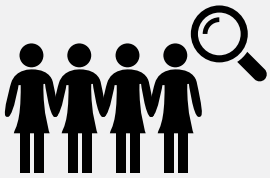
What?

Personas are fictional characters, that are created as a representation of different user type, that might fall into the service, product or objective that you have defined. A persona will help you to understand needs, experiences, behaviors and goals, guiding your ideation process throughout. This tool can help you get people insights that are otherwise missing in the process.

How?

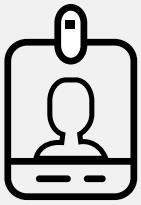
Be sure to describe personas in a such way so as to express enough understanding and empathy to understand the users. You should include details about the user's education, lifestyle, interests, values, goals, needs, limitations, desires, attitudes, and patterns of behaviour. Add a few fictional personal details to make the persona a realistic character. Give each of your personas a name. Create 1–2-pages of descriptions for each persona.

STEP-BY STEP

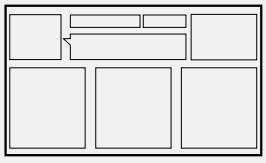


1. Observe the user in their environment.

2. Develop a understanding about stakeholders aligned to your objective.



3. Find visuals and demographic insights to create personas.



4. Create Persona maps to analyse the insights.

Example

Persona

VIKRAM SINGHANIA

Age: 36 years
Profession: IT Educational Product Manager
Location: Mumbai

"I am motivated to invest in internet of thing as it promises an educational reform."

GOALS

1. **Look for investment opportunities.**
2. **Wants to develop new education ventures using Internet of things.**
3. **Willing to offer pro-bono services**

A persona created to understand investors in a Internet of Things venture.

Persona

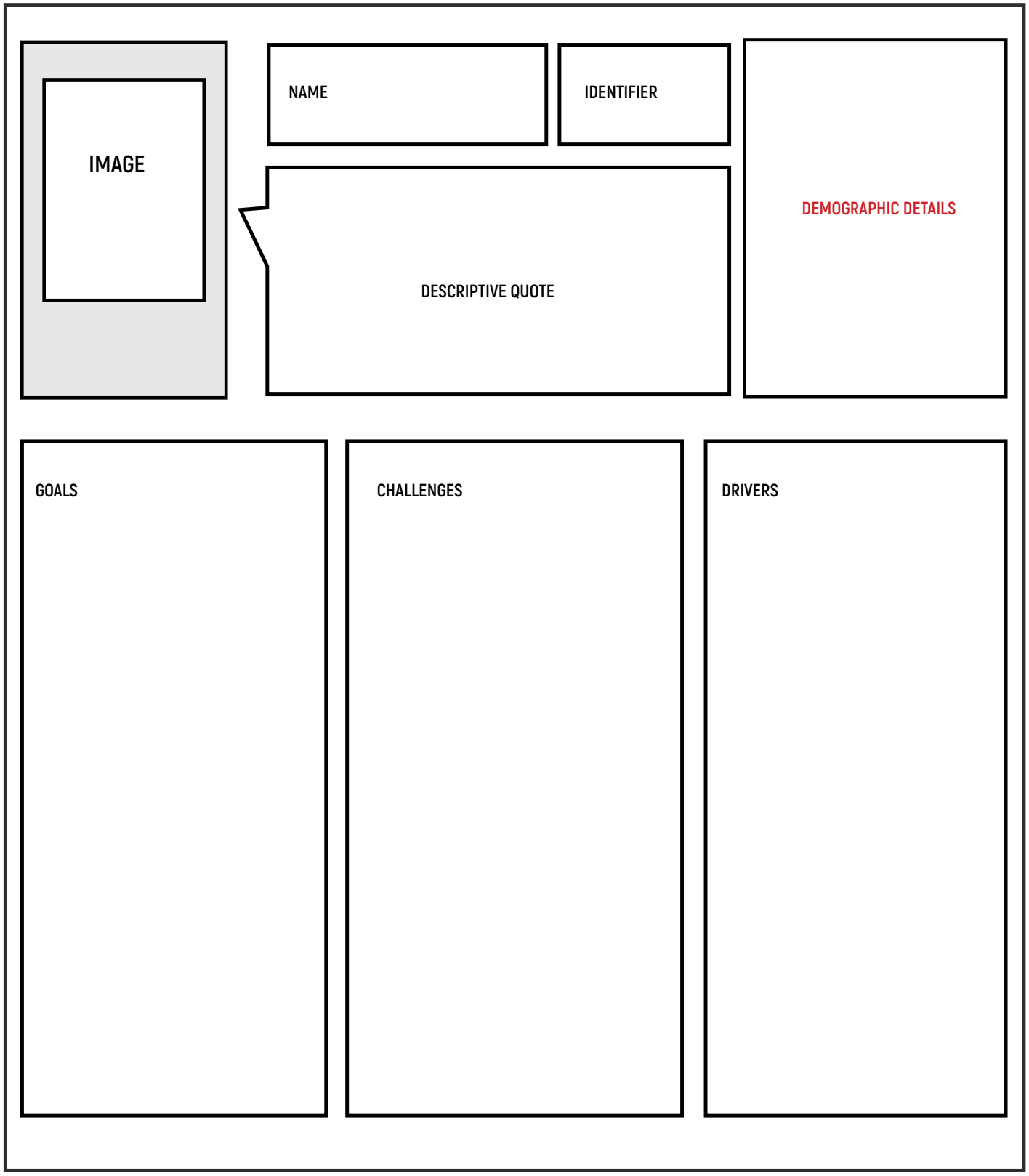


IMAGE
NAME
IDENTIFIER
DEMOGRAPHIC DETAILS
DESCRIPTIVE QUOTE
GOALS
CHALLENGES
DRIVERS

16 SCAMPER

What?

SCAMPER is a creative brainstorming technique. This tool helps you generate ideas for new products and services by encouraging you to think about how you could improve existing ones.

How?

The SCAMPER technique aims to provide seven different thinking approaches to find innovative ideas and solutions.

S Substitute - Remove some part of the accepted situation, thing, or concept and replace it with something else.

C Combine - Join, affiliate, or force together two or more elements of your subject matter and consider ways that such a combination might move you toward a solution.

A Adapt - Change some part of your problem so that it works where it did not before.

M Modify - Consider many of the attribute of the thing you're working on and change them, arbitrarily, if necessary.

P - Put to other use. Challenge all of these assumptions and suggest new and unusual purposes.

E Eliminate - Remove any or all elements of your subject, simplify, reduce to core functionality

R Reverse - Change the direction or orientation. Turn it upside-down, inside-out, or make it go backwards, against the direction it was intended to go or be used.

STEP-BY STEP

Step 1. Take an existing product or service. It could be an existing product, service or idea which you want to improve or which could be a great starting point for future development.

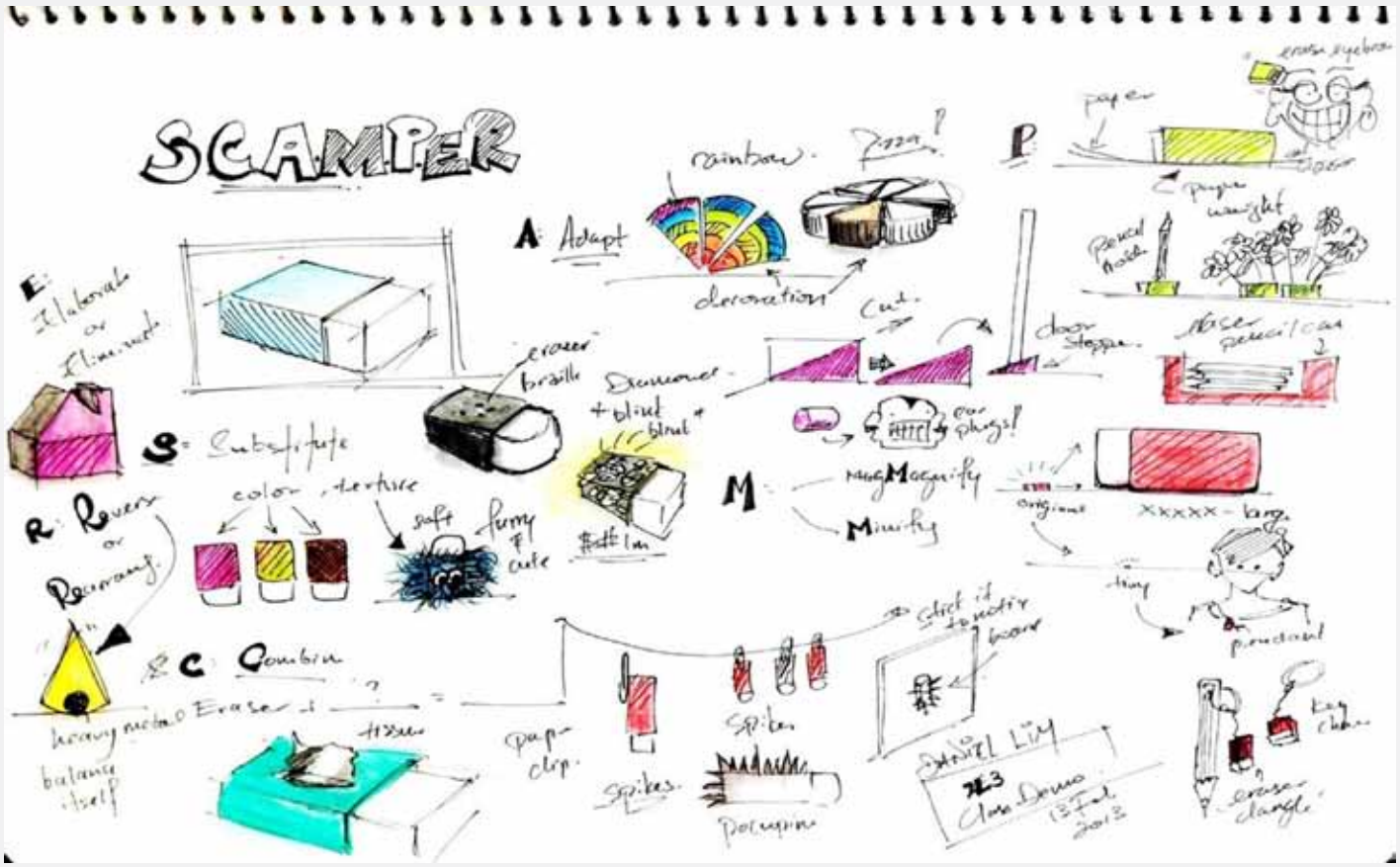
Step 2. Then, simply go down the list and ask questions regarding each of the seven elements.

Step 3. Apply the questions to values, benefits, services, touch points, product attributes, pricing, markets and essentially any other related aspect you might be able to think of that has relevance to your ideation needs.

Step 4. Look at the answers that you came up with. Take the good ideas and explore them further.

Example

SCAMPER



source: http://www.detmontrose.com/n-45-design-manufacture/4591858391

SCAMPER

Is a creative brainstroming tool, it helps generate ideas for new products by thinking about how you could improve existing ones.

Substitute	Combine	Adapt	Modify
Put to another use	Eliminate	Reverse/ Rearrange	Favourite Design

17 Stakeholder Map

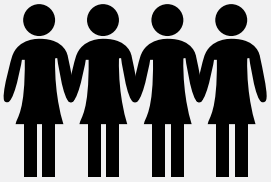
What?

Stakeholder mapping is a collaborative process that draws from multiple perspectives to determine a key list of stakeholders across the entire stakeholder spectrum. Mapping can be broken down into four phases: listing relevant groups, understanding stakeholder perspectives,visualizing relationships to objectives and other stakeholders, prioritizing stakeholder relevance and identifying issues.

How?

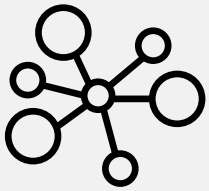
The first step is to brainstorm who your stakeholders are. The next step is to prioritize them by concern and(or) interest. The final steps to understanding what motivates your stakeholders or other concerns as per the objective. A survey or contextual enquiry will aid in ranking the relevant stakeholders and a systems map can help understand relationships that exist amongst them.

STEP-BY STEP

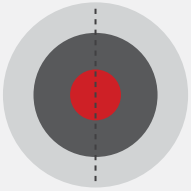


1. List the stakeholders.

2. Develop understanding about the stakeholders' perspectives.



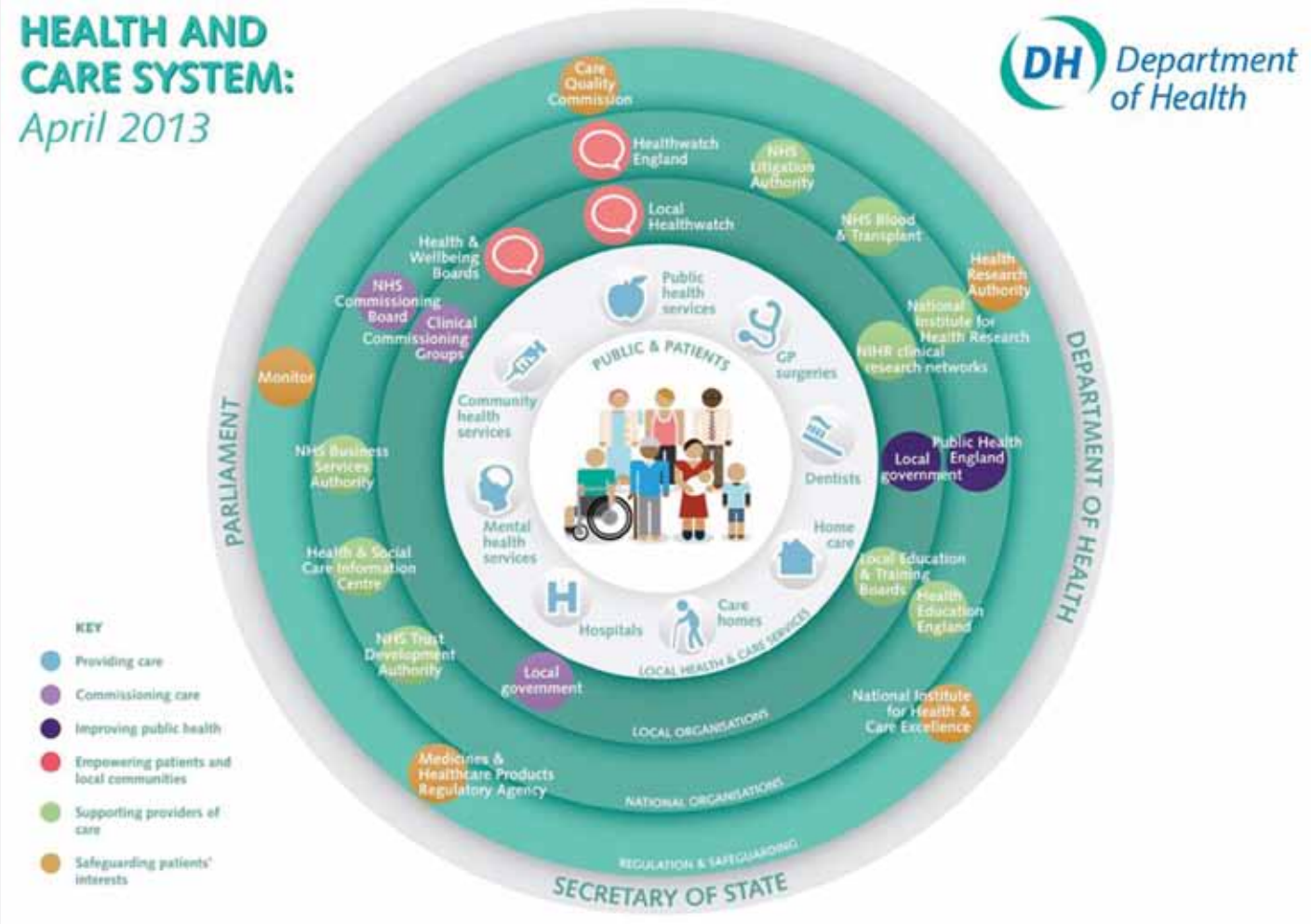
3. Visualising relationships using Systems Map.



4. Clarity on stakeholders and their roles, relationships, relevance etc.

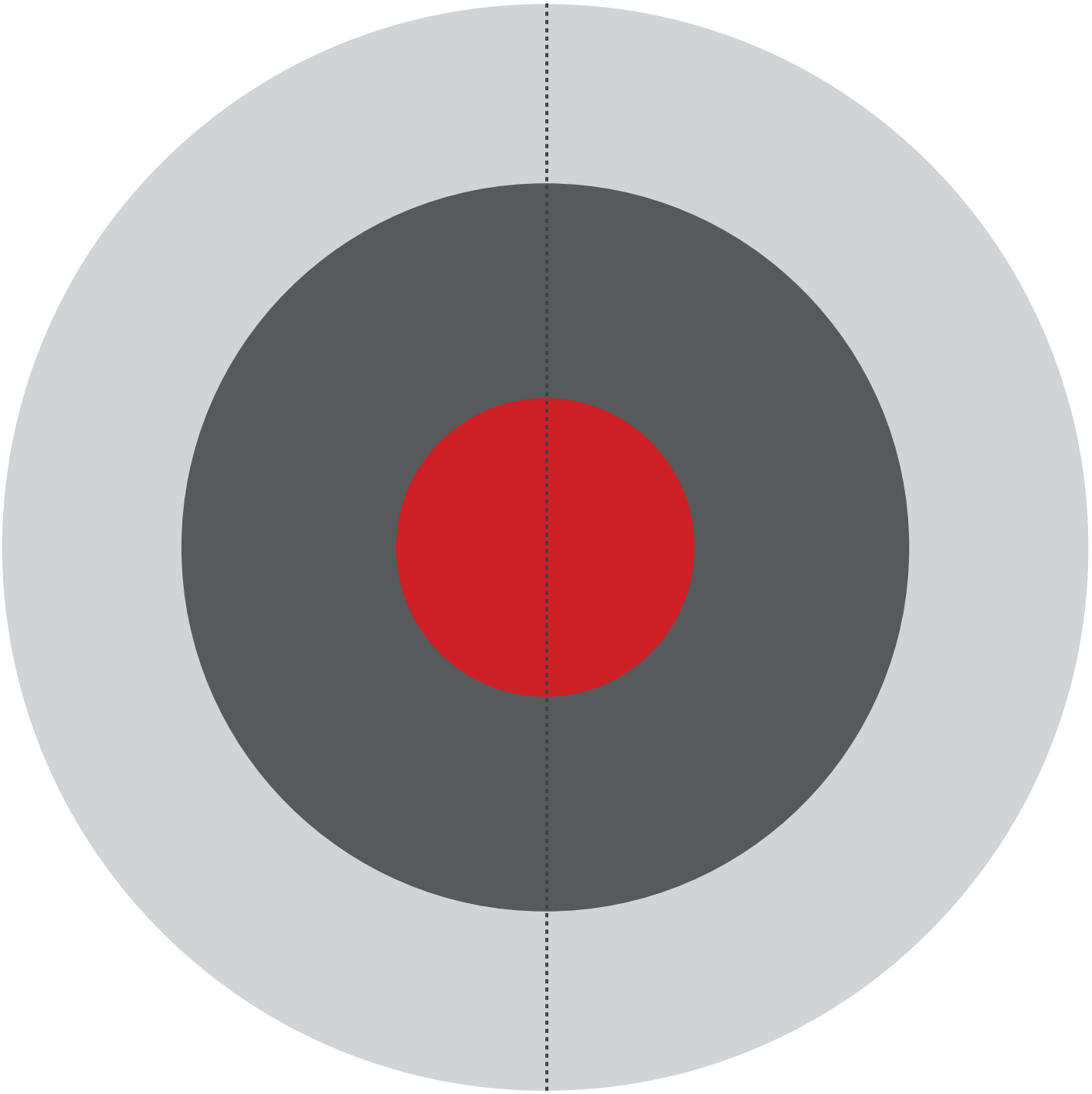
Example

Stakeholder Map



SOURCE: https://gojiactivesdiet.com/3276/health-services-diagram.html

Stakeholder Map



18 Storyboarding

What?

Storyboards communicate a concept by visualizing user interactions. They use the art of the narrative to focus on a person's experience of using your service. Storyboards become a way to move beyond the functional view and into the human story of the experience, to shift the focus to the user and the problem that the new experience solves

How?

A storyboard is used to set the stage of the concept. It must address the 5 W's: Who? What Where? Why? When?

You start by writing out the story you want to tell. If you're presenting the storyboard to users, you'll want to focus in on the key elements you want feedback on. It is important to identify and shortlist what you want to learn and ensure that is included as part of the narrative. It is best low-fidelity sketches with words underneath to begin.

STEP-BY STEP

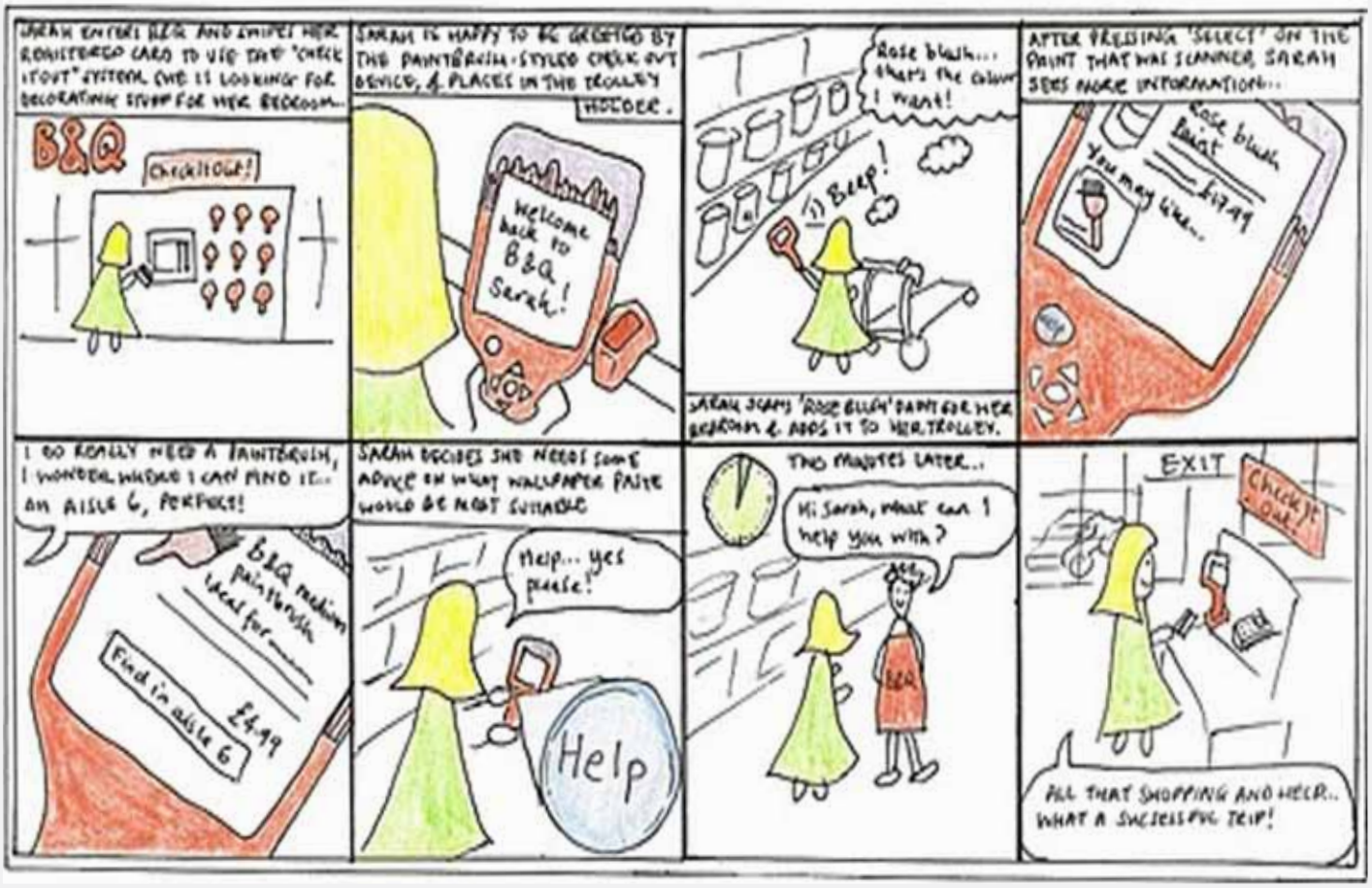
Step 1. Create a template by drawing a series of rectangles on a piece of paper, as if you were creating a comic strip. ...

Step 2. Under each rectangle, write the line of script or dialogue that corresponds to that scene.

Step 3. Sketch out the story to explain your concept

Example

Storyboarding



Source: https://kwhcs.files.wordpress.com/2010/12/storyboard.jpg

Storyboarding

Scene:	Scene:	Scene:
Scene:	Scene:	Scene:

Create your own storyboard

19 System Maps

What?

Causal loop is a type of Systems Map diagram that brings circular reasoning into focus. People tend to think linearly, while in practice most connections are non-linear and circular. Thus, we often have multiple causes of an effect, and multiple effects from a cause.

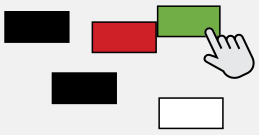
Causal loops can help us understand policies, routines, relationships, resources, power structures and values in a holistic manner.

How?

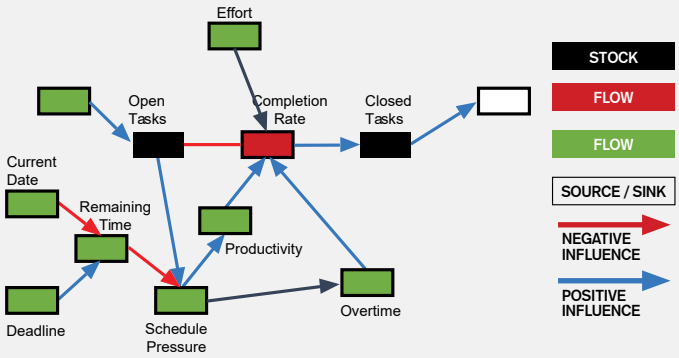
Considering the Universe and all factors operating therein as part of one single, infinitely large, and interconnected complex system, take only the part of that system that is within your purview of the given problem. Each 'factor' is then looked at in the context of the system; and all other factors influencing it, or being influenced as a result of it, are represented by post-its, which in turn are connected by positive or negative links - representing direct or inverse relationships respectively - such that at the end, we have a holistic overview of the system and all feedback loops influencing the factors in varying magnitudes within.

STEP-BY STEP

1. Define Objectives.



2. Categorise Information.



3. Make connections as per relationships.

Example

System Maps

STOCK

Stocks. A stock represent a part of a system whose value at any given instant in time can be determined only by measuring how it changes at every instant and adding up all these changes.

FLOW

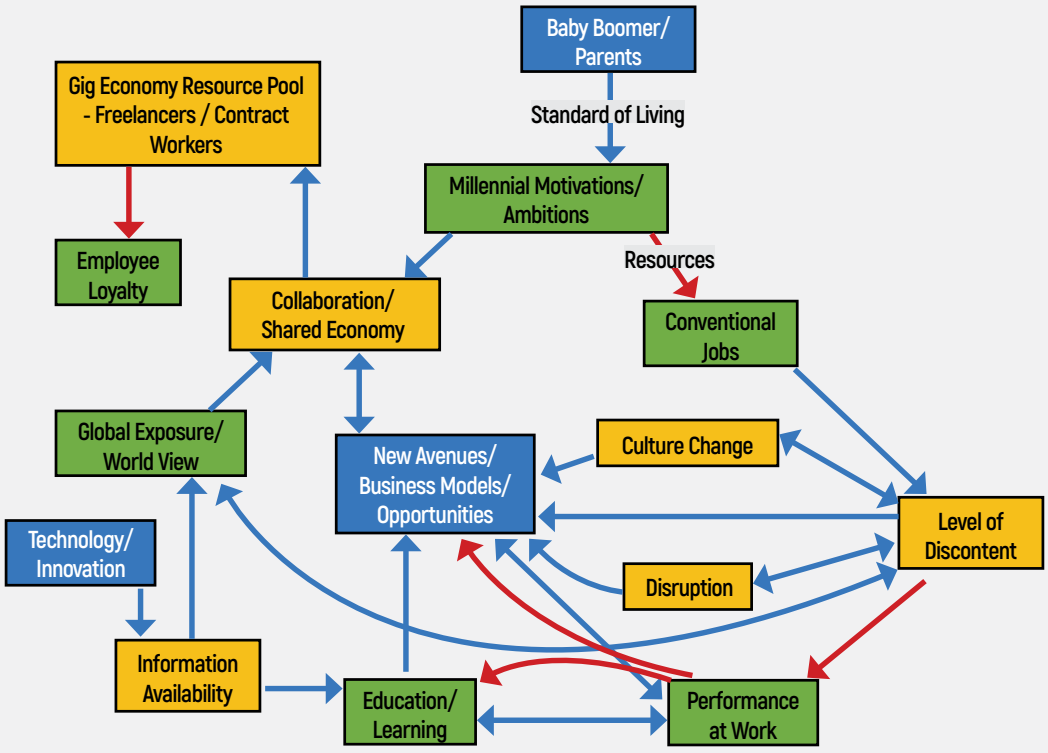
Flows. Flows represent the rate at which the stock is changing at any given instant, they either flow into a stock (causing it to increase) or flow out of a stock (causing it to decrease).

FLOW

Converters. Converters represent parts at the boundary of the system (i.e. parts whose value is not determined by the behaviour of the system itself) or parts whose values are derived from other parts of the bigger system.

SOURCE / SINK

Source/Sink. Sources and sinks are used to show that a stock is flowing from a source or into a sink that lies outside of the models boundary; On diagrams, they are represented by small clouds.



A Systems Model showing factors determining the Nature of Work, the Workforce, and the Workplace as affecting Millennial workers

20 Wizard of Oz

What?

Wizard-of-Oz prototypes are used to fake functionality that you want to test with users, thus saving you the time and resources of actually creating the functionality before you refine it through testing. Wizard-of-Oz prototypes often refer to prototypes of digital systems, in which the user thinks the response is computer-driven, when in fact it is human controlled.

How?

Creating a Wizard-of-Oz prototype starts with determining what you want to test or explore. It is often the case that you want to test something that requires great effort to create, like coding a digital interface, but you need to learn more before it makes sense to invest that effort. Often leveraging existing tools can be very powerful: Twitter, email systems, Skype, instant messengers, Powerpoint to fake a website, projectors, computer screens repurposed in a new skin, etc. Combine tools such as these with your human intervention behind the scenes, and you can create a realistic prototype.

The concept can certainly be extended beyond the digital realm, to create physical prototypes. For example, you could prototype a vending machine without creating the mechanics and use a hidden person to deliver the selected purchases.

STEP-BY STEP

Step 1. Select an idea/concept that will be tested. Create the necessary images, videos, animations and elements to do the test.

Step 2. Recruit participants for the test and organize a location, make sure the prototype works. Assign a person as wizard.

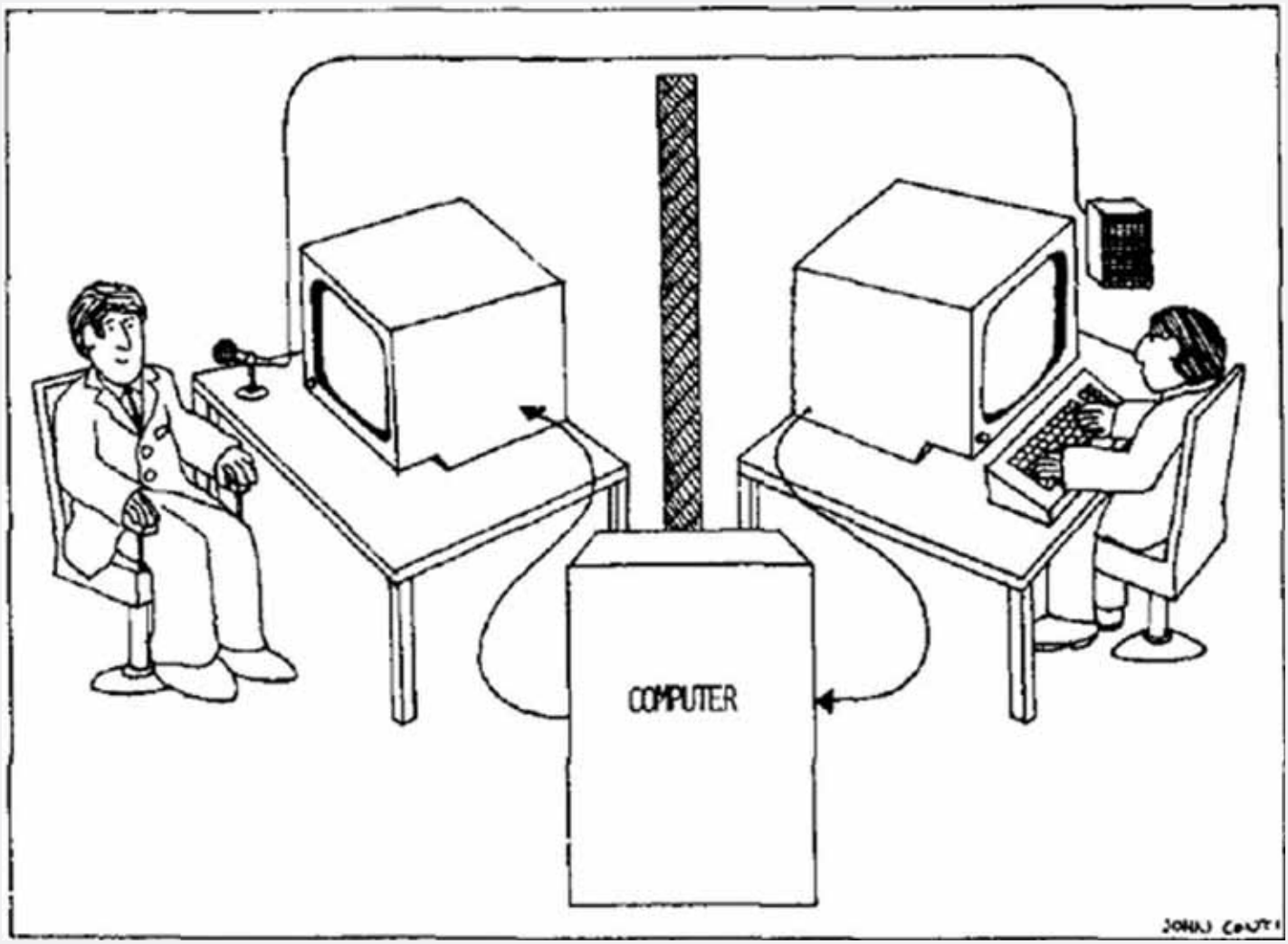
Step 3. The wizard hides from view, and observes the user's actions while making the system react to those actions by triggering the different responses the system should give at that moment in the interaction.

Step 4. Take notes of what works and what does not work while doing the test.

Step 5. Ask participants about their impression of the system and the design. Take notes.

Example

Wizard of Oz



Further Reading

Here is a curated collection of tools, resources and literature for you to reference as you continue your design thinking journey

- Stanford d.School Resources & Tools
  - (https://dschool.stanford.edu/resources-collections/)
- frog design's 43 page Collective Action Toolkit
  - (https://www.frogdesign.com/work/frog-collective-action-toolkit)
- SessionLab Brainstorming Facilitation Tools
  - (https://www.sessionlab.com/library)
- 45 Design Thinking Resources for Educators
  - (http://www.opencolleges.edu.au/informed/features/45-design-thinking-resources-for-educators/#ixzz2bnMyQLfC)
- IDEO.org Field Guide to Human Centered Design
  - (http://www.designkit.org/resources/1)
- Design Thinking for Educators Toolkit co-developed by IDEO
  - (https://designthinkingforeducators.com/)
- Google Design Sprint Kit
  - (https://designsprintkit.withgoogle.com/)
- IBM Design Thinking Field Guide
  - (https://www-356.ibm.com/partnerworld/IBM)
- Alexandar Cowan Venture Design (great tools/templates for Empathy, Ideation, & Agile)
  - (https://www.alexandercowan.com/venture-design/)

Notes

A QAI Promoted Venture

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