

Recap: Million Dollar Idea Tool (CO1)

10gm. 100gm. 1000gm.
On the most **definitive** options

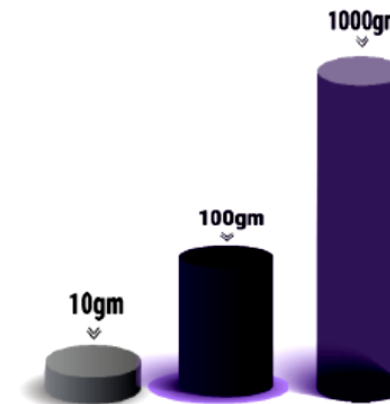
...and then, on the 1000gm ones identify:

The **Q**uick

The **B**old

The **L**ong lasting


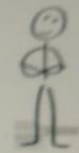


Remember This Cardinal Rule?



THEORY OF **PRIORITISATION**

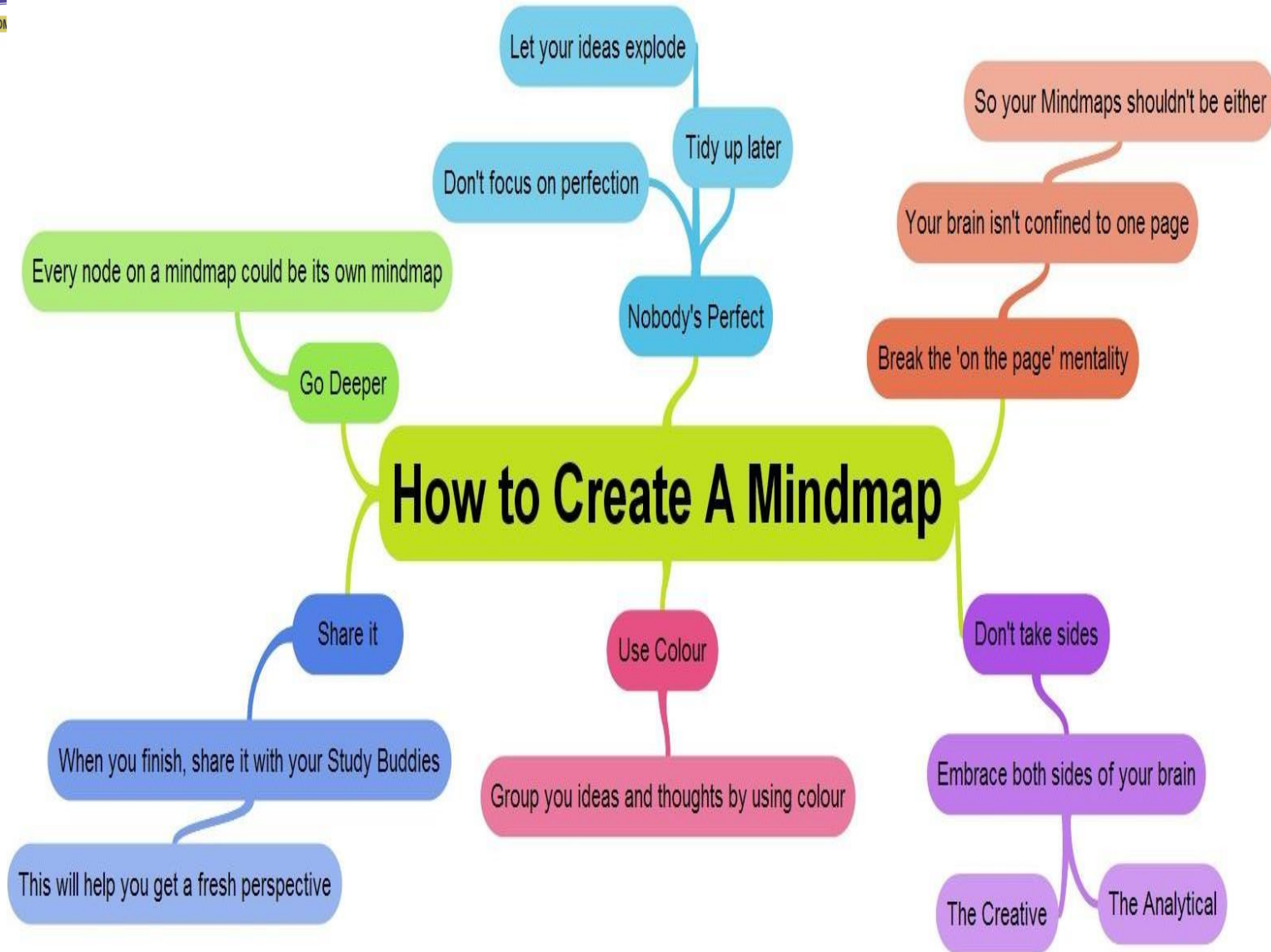
- A simple, easy-to-digest visual that captures knowledge about a user's behaviors and attitudes.
- Helps designers see things from the user's perspective.
- An active ingredient during Listening, Dialogue, Observation
- Used right from the outset of the Design Thinking Process to help the Design Thinker develop empathy, understanding, experiences, insights and observations.
- But...
- It is an iterative tool. Users can go back to the map and refine it as and when they notice something new during a dialogue or interaction with the user.

Recap: Empathy Map Cont...(CO1)

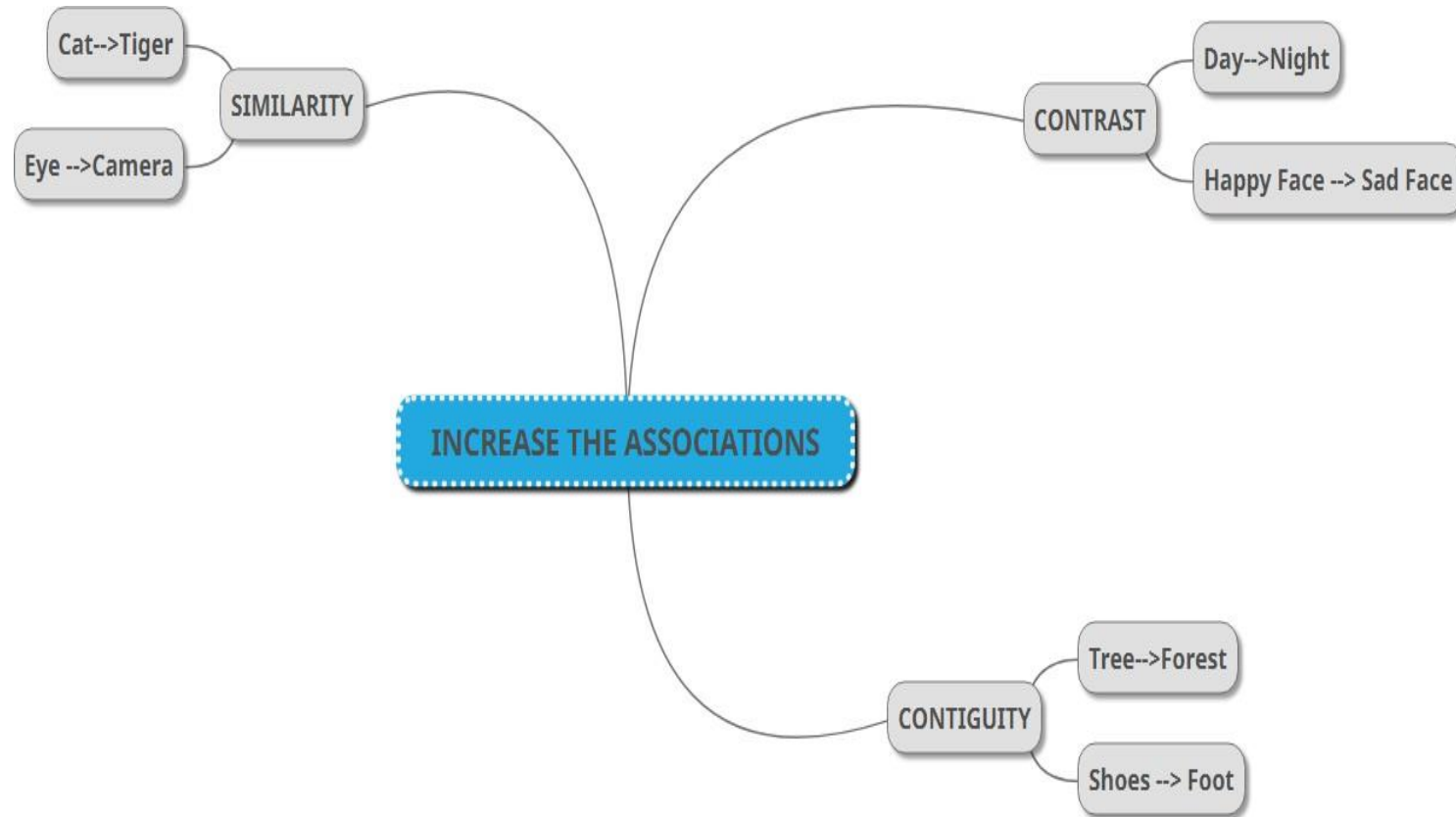
THINKS 	FEELS 
SAYS 	DOES 
INSIGHT POSITIVE insights after capturing the above data	INSIGHT NEGATIVE insights after capturing the above data

- Great tool for ideating & getting unstuck.
- Simple free association of words, one after another, to open up idea space.
- Being visual, generates lots of ideas by bypassing the inner logic / verbal sensor.
- Tool to represent how ideas are linked to each other and to the central idea.
- Used to generate, visualize, structure and classify items.
- Helps to look for patterns & insights.
- Displays data, clusters them and helps themes & patterns to emerge Provides decision criteria.
- Success lies in being a team activity.
- Taps into the power of visualization.

Recap: Mindmap Cont... (CO1)



Recap: Mindmap Example (CO1)



CATWOE Analysis technique was considered as one of the important part of SSM approach while identifying stakeholders in solving problems.

- Enlists all the stakeholders who would be affected while solving problems & understand their perspective
- Helps to avoid the personal bias/beliefs of problem solvers as they critically discuss each element of CATWOE
- Unearths the bigger picture with regards to constraints, challenges, possible outcomes and their effects on the stakeholder(s)
- Understand the conflicts between stakeholders, their roles, conflicts in roles & possible actions (they might take) during the process of problem solving

- To solve any complex problem where multiple stakeholders are involved.
- To change an existing system impacting a variety of people.
- To enable Change Management for better adoption of change by stakeholders.
- Used in typical Project Management.
- To launch a concept that will radically change the existing system.

- **The 'CAT'**

Customers

- Those who face the current problem for whom you will be working on the solution.
- Those who will be using your solution
- Those directly affected by your idea

Actors

- Those who actually implement the solution/transformation

Transformation

- Does not involve writing any stakeholder; but write in clear-cut terms about the **Why, What, How** of the problem and the solution/transformation you wish to bring to solve
- By clearly thinking and writing, you will think of stakeholders who can be classified in other elements

- The 'WOE'

Worldview

- Very important during analysis when thinking beyond the system
- Considering stakeholders beyond current system who will be affected indirectly by solution/transformation
- Think of the bigger picture (*beyond the system*)

Owners

- Stakeholders who own the permission to start/stop/pause/cancel your transformation / solution
- Leaders who have the ability to guide the solution as well as block it

Environment Constraints

- Constraints (*legal, political, ethical, regulation, norms, financial, human power, etc.*) or rules that may hinder solution implementation

Design is a process of working to develop solutions in a conscious and innovative way in which both functional and aesthetic requirements are included based on user needs.

- Human Centred
- Future Focused
- Creates Value





CREATIVITY

The act of turning new and imaginative ideas into reality.



INVENTION

Creation of a new idea or concept



INNOVATION

Turning a new concept into commercial success or widespread use



**FRAME A
QUESTION**



**GATHER
INSPIRATION**



**GENERATE
IDEAS**



**MAKE IDEAS
TANGIBLE**



**TEST
TO LEARN**



**SHARE
THE STORY**

Frame a Question

Inspire your team to think about your customers (who you're designing a solution for) and what they actually need.

Gather Inspiration

Go out into the world and seek inspiration by observing and discovering what people really need.

Generate Ideas

Use the inspiration you gather to help push past the obvious to come up with fresh solutions to your problem.

Make Ideas Tangible

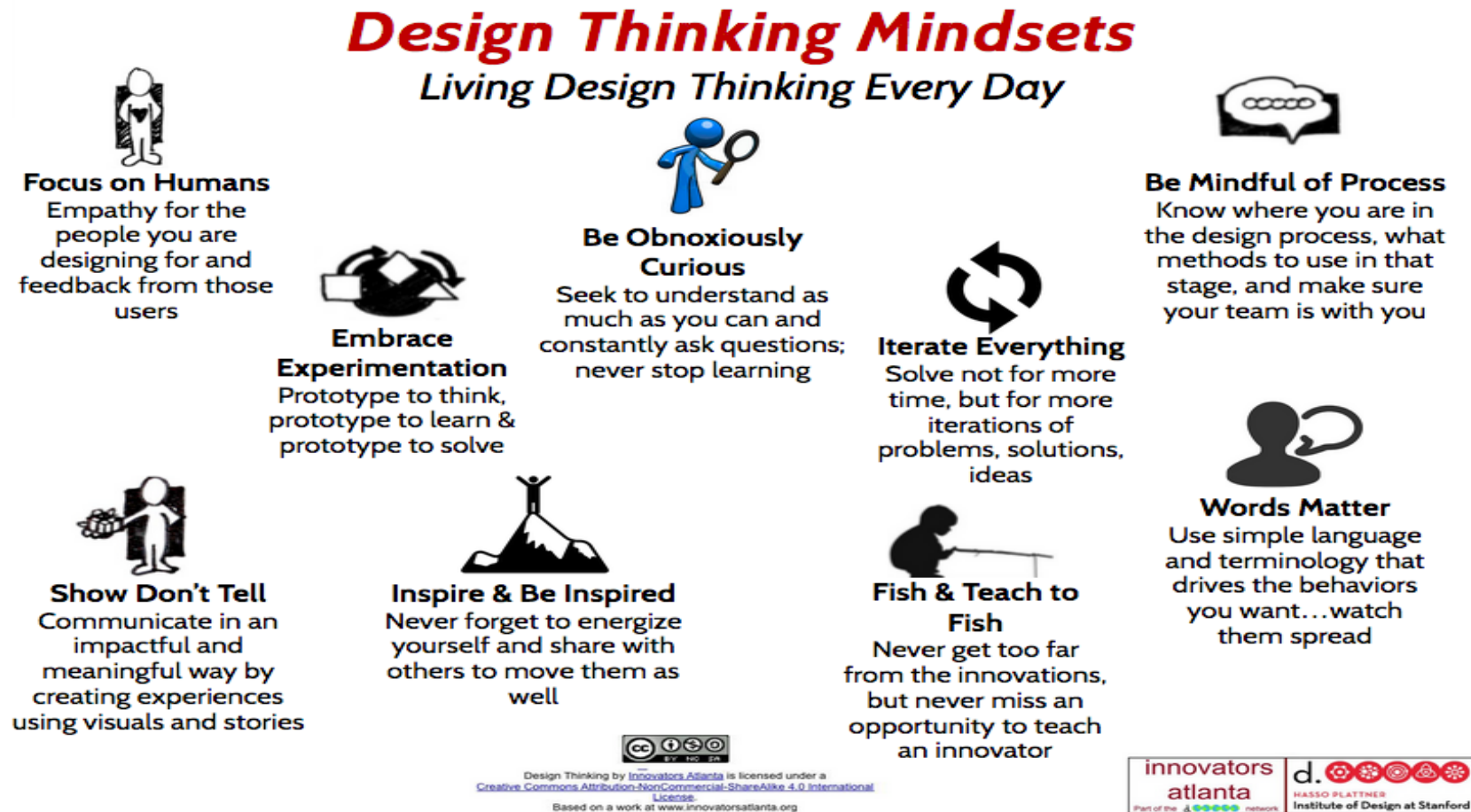
Build rough prototypes and find what's working and what's not.

Test to Learn

Test your prototypes, gather feedback, and iterate.

Share the Story

Once you've arrived at the right solution, craft and share the story to introduce it to your colleagues, clients, and customers.



3 Core Design Thinking Principles(CO1)



Empathy

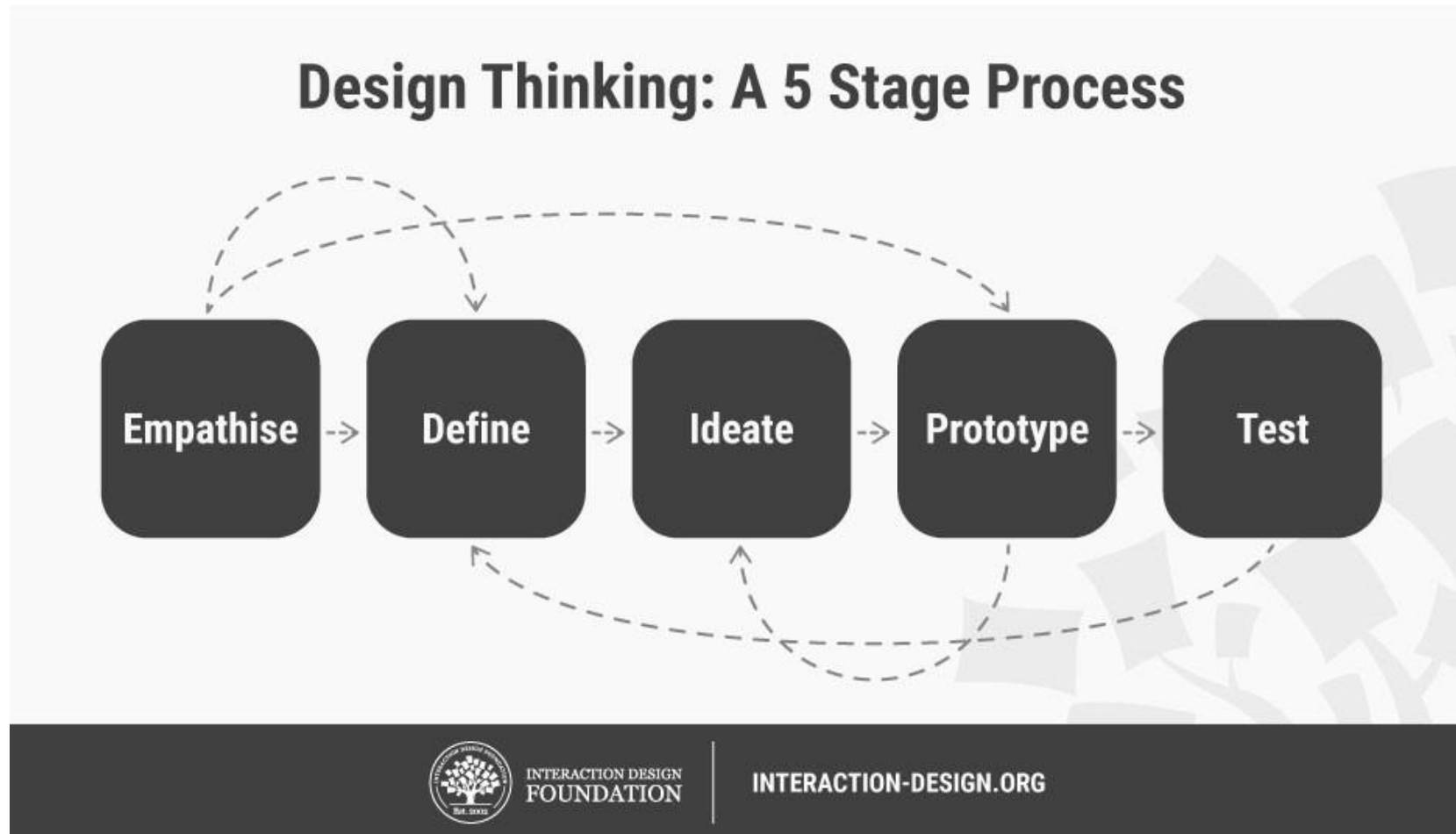


Expansive thinking



Experimentation

Design Thinking model : Hasso-Plattner Institute of Design at Stanford



Design Thinking Model: IDEO (CO1)

PHASES

1

DISCOVERY



I have a challenge.
How do I approach it?

2

INTERPRETATION



I learned something.
How do I interpret it?

3

IDEATION



I see an opportunity.
What do I create?

4

EXPERIMENTATION



I have an idea.
How do I build it?

5

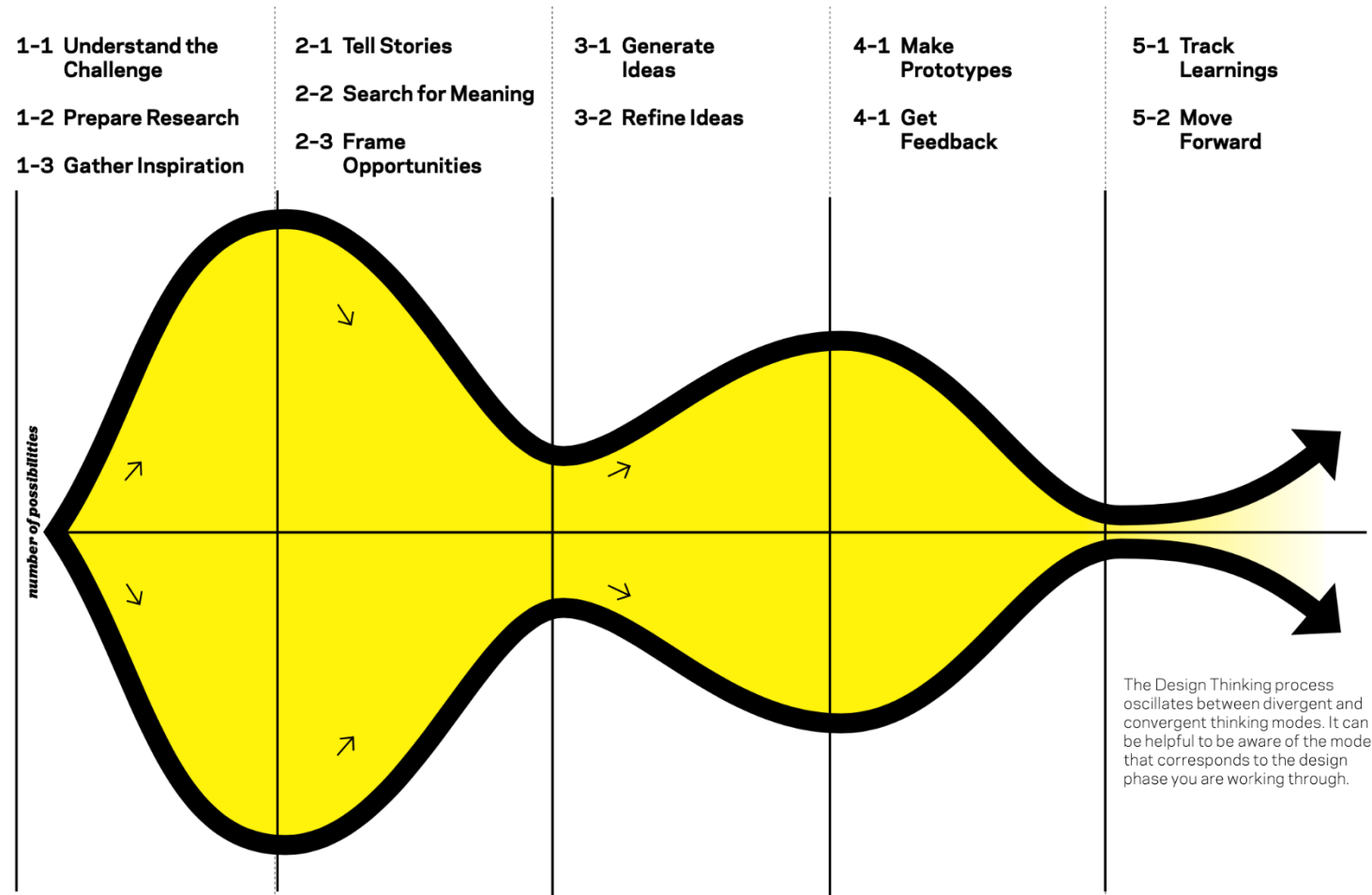
EVOLUTION



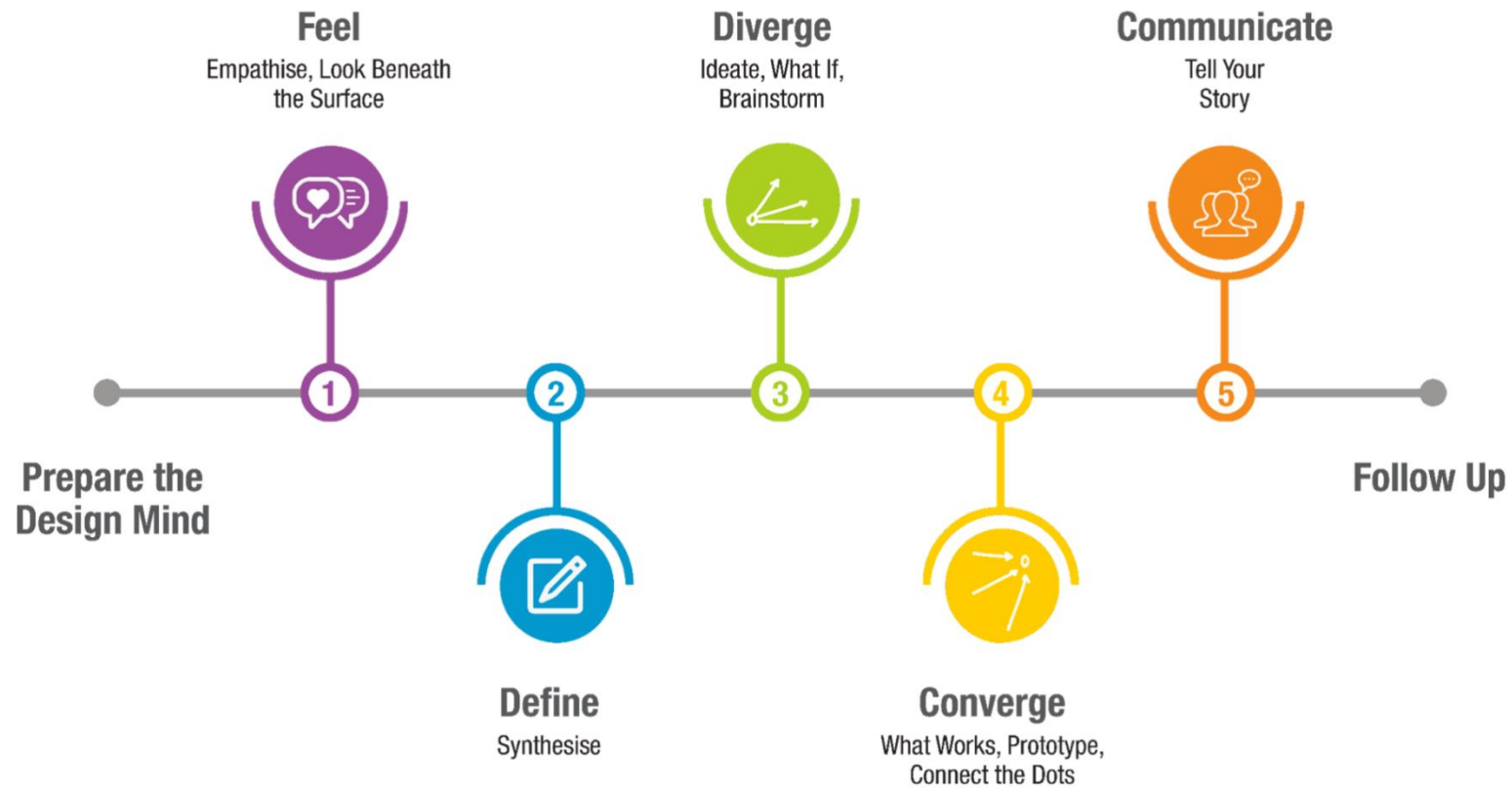
I tried something new.
How do I evolve it?

STEPS

Design Thinking Model: IDEO (CO1) Cont....



Design Thinking Process: School of Design Thinking(CO1)



- Design is a process of working to develop solutions in a conscious and innovative way in which both _____ and _____ requirements are included based on user needs.
 - a) functional and aesthetic
 - b) Customer and seller
 - c) Weak and strong
 - d) Good or Bad
- Design Thinking typically helps in _____
 - a) Innovation
 - b) Creativity
 - c) Dialogue
 - d) Observation

- Design thinking is often also called_____
 - a) Human Centred design
 - b) Ecological sustainability
 - c) Alien diversity
 - d) Intellectual property
- What is Innovation?
 - a) The process of turning a new concept into commercial success or widespread use.
 - b) The creation of a new idea or concept.
 - c) The act of turning new and imaginative ideas into reality.
 - d) None of the above

Simon Sinek's – Start with Why (CO1)

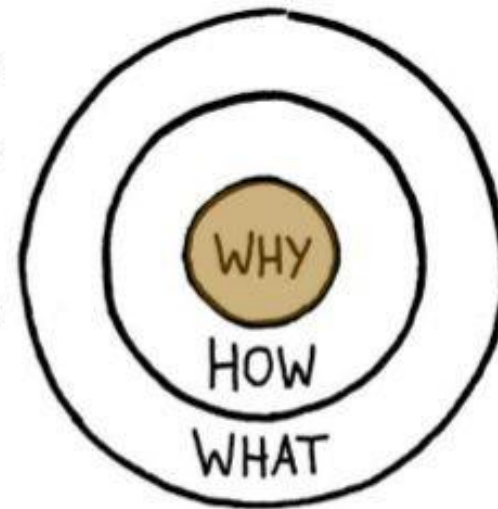
Start with Why shows that the leaders who've had the greatest influence in the world all think, act, and communicate the same way—and it's the opposite of what everyone else does. Sinek calls this powerful idea The Golden Circle, and it provides a framework upon which organizations can be built, movements can be led, and people can be inspired. And it all starts with WHY.

The Golden Circle

Simon Sinek discusses the principal behind every successful person and business. A simple but powerful model for how leaders inspire action, starting with a "Golden Circle" and the question "Why?"

"First why and then trust."

- *Simon Sinek*



In its graphic published by Neil Byers and
linked in, as in the byers and

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WHAT

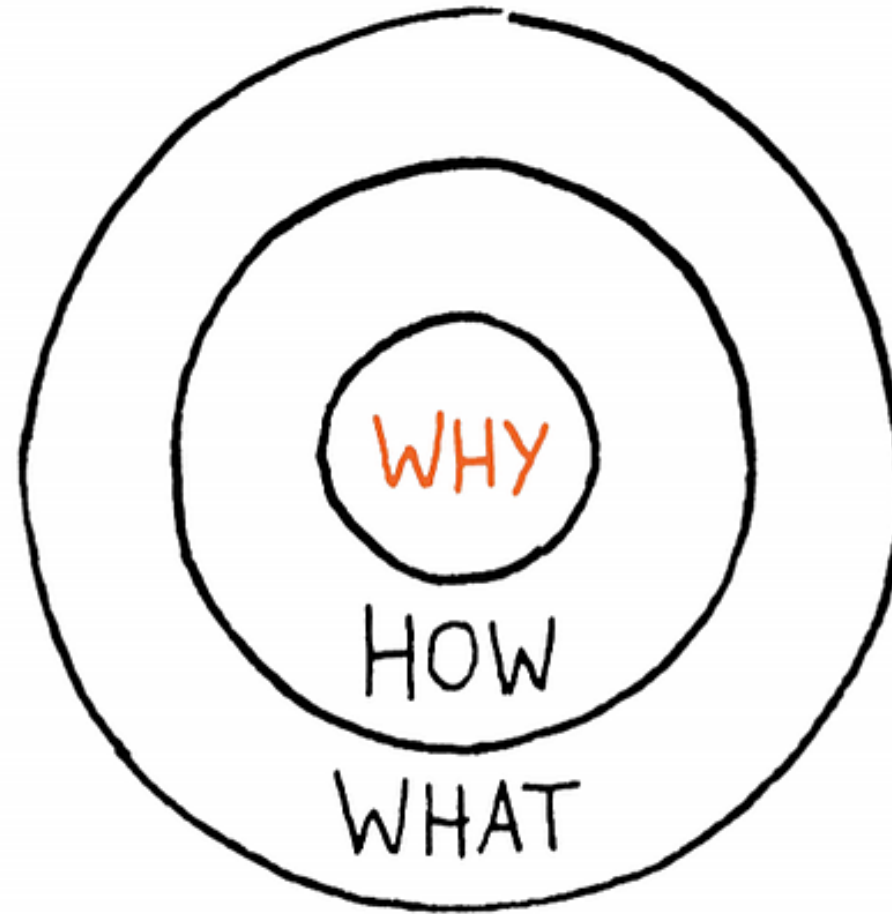
Every organization on the planet knows WHAT they do. These are products they sell or the services they offer.

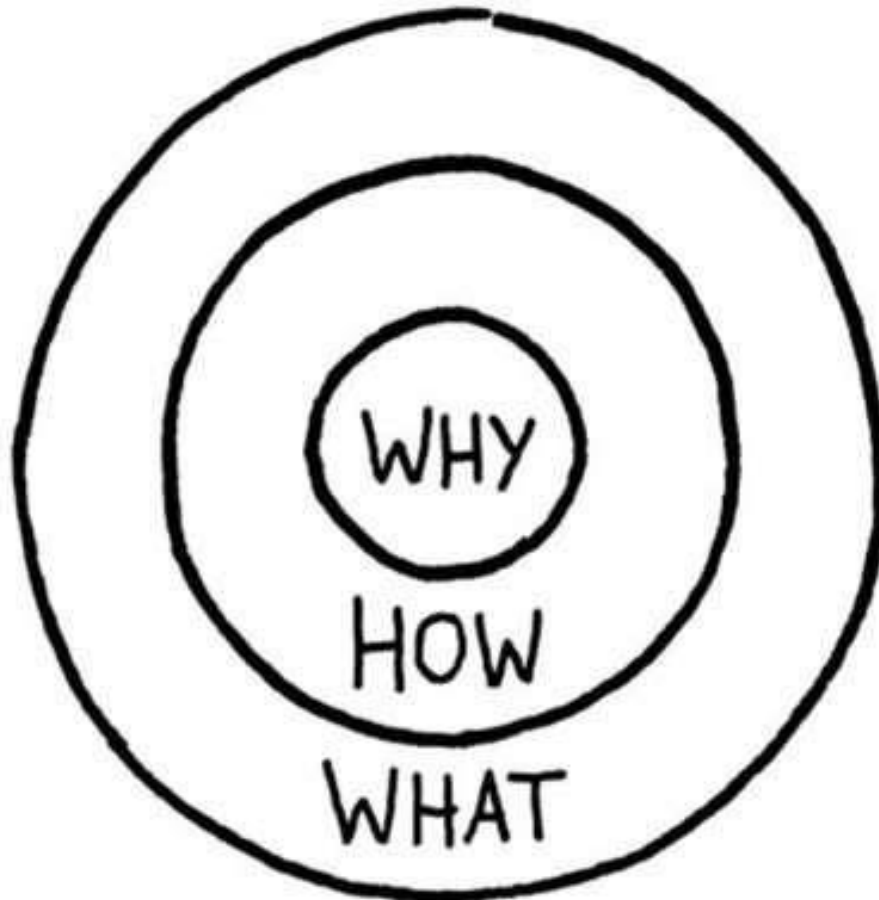
HOW

Some organizations know HOW they do it. These are the things that make them special or set them apart from their competition.

WHY

Very few organizations know WHY they do what they do. WHY is not about making money. That's a result. WHY is a purpose, cause or belief. It's the very reason your organization exists.





Why = The Purpose

What is your cause? What do you believe?

Apple: We believe in challenging the status quo and doing this differently

How = The Process

Specific actions taken to realize the Why.

Apple: Our products are beautifully designed and easy to use

What = The Result

What do you do? The result of Why. Proof.

Apple: We make computers

Asking the “Why” behind each example (5-WHYS) (CO1)

SYMPTOM



ROOT CAUSE

ARE YOU SOLVING...

ACTUAL PROBLEM

SYMPTOM

FIRST IMPRESSION

OF THE PROBLEM?

5-WHYS example (CO1)

The robot stopped abruptly and ceased to function

WHY?

The circuit was overloaded causing a fuse to blow

WHY?

There was insufficient lubrication on the bearing, so they locked up

WHY?

The oil pump is not circulating enough oil

WHY?

The pump intake is clogged with metal shavings

WHY?

There is no filter in the oil pump.

Perform a periodic check on the critical machine parts

- Explain Design thinking & Innovation.
- Summarize Design Thinking Mindset and Principles.
- Discuss 5-Step Process of Design Thinking.
- Briefly describe Design Approaches.
- Illustrate examples of each design approaches.
- Describe Simon Sinek's – Start with Why
- Analyze "The Golden Circle".

The Higher Purpose (CO1)

President Kennedy once visited a NASA site and met a janitor.

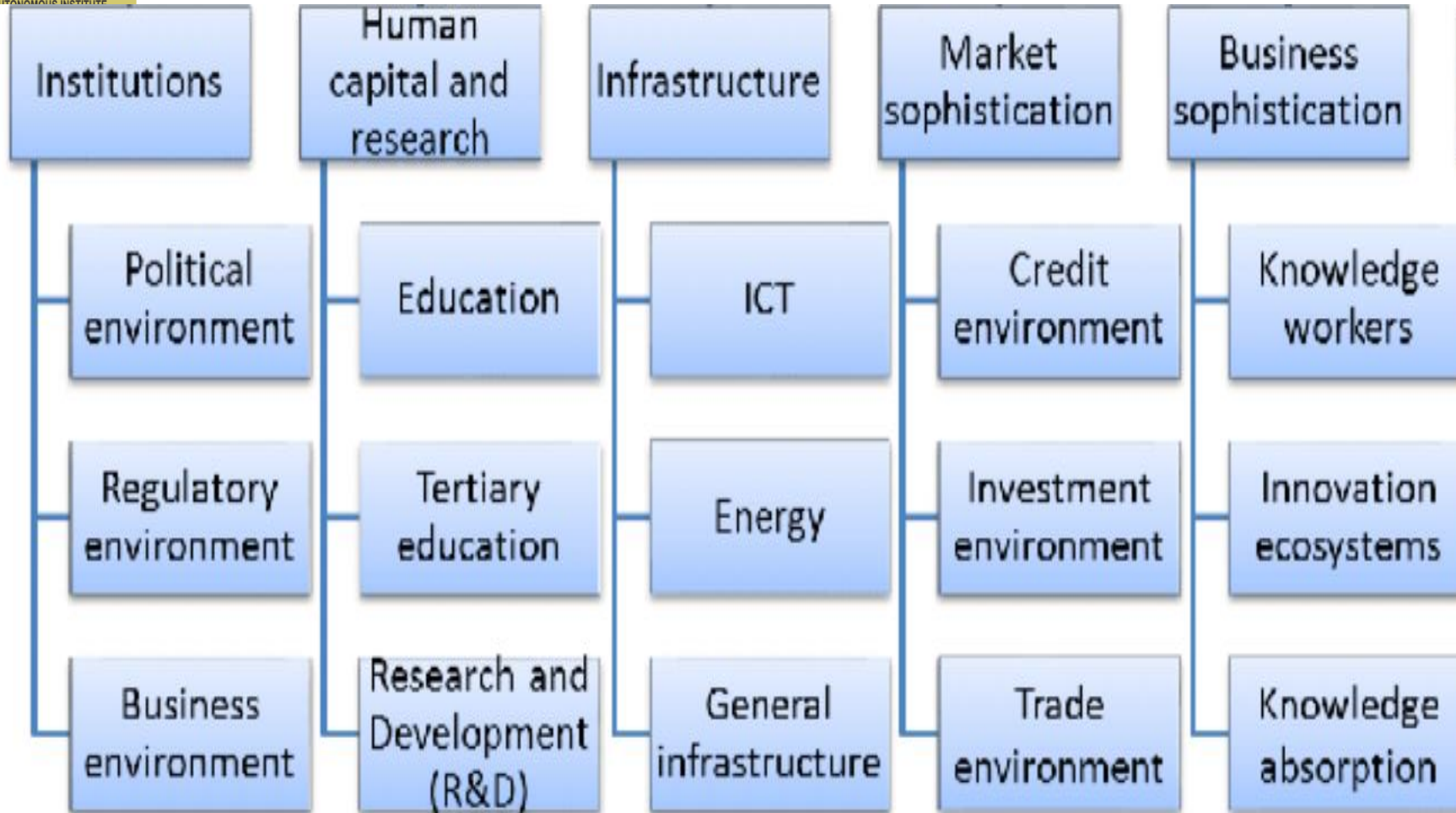
Kennedy asked the janitor, "And what's your job?"

The reply was, "Mr. President, I'm helping to put a man on the moon."

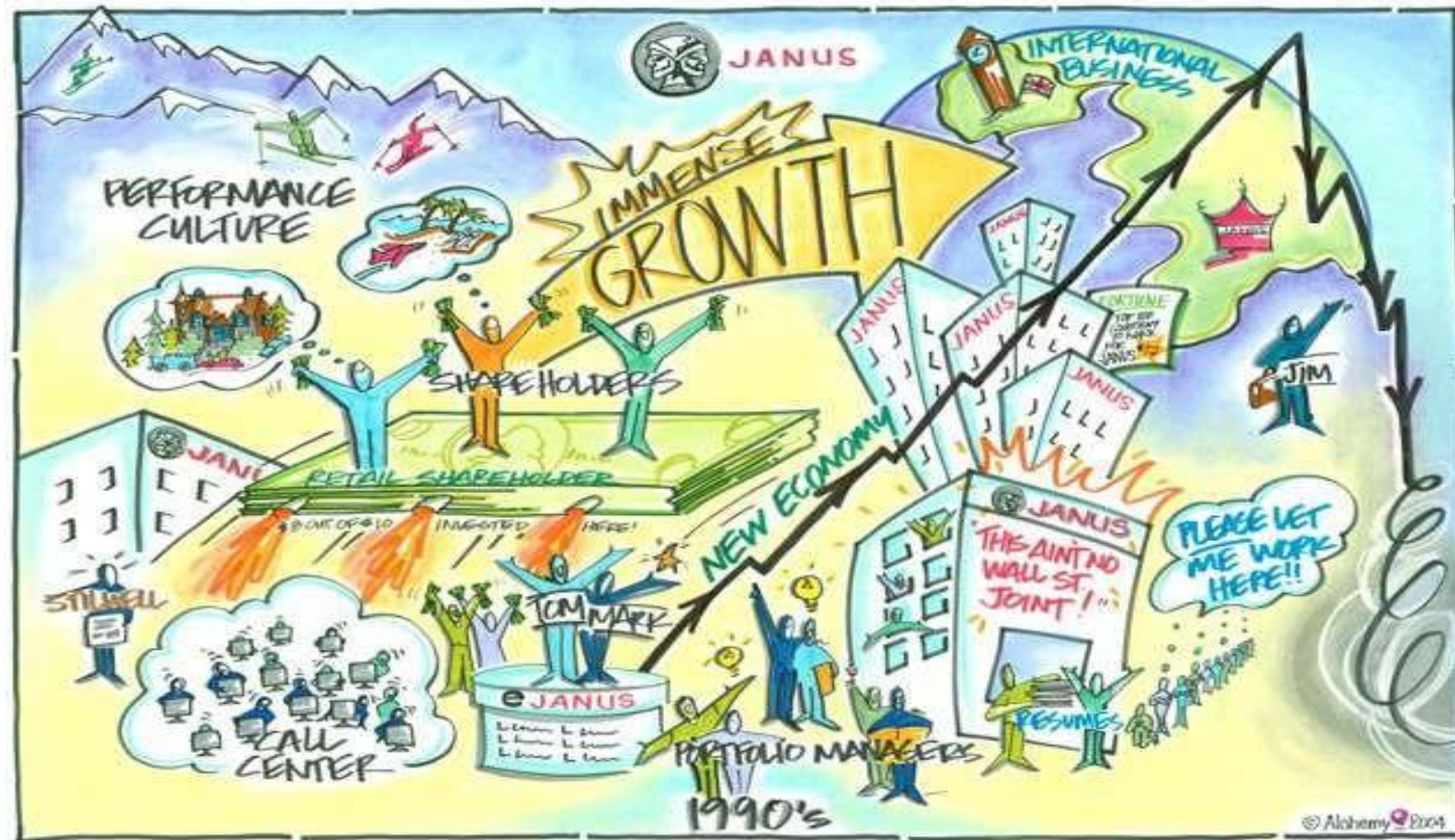


LDO & sharing insights (Low-Defination Oppertunity)

LD0 Framework Example for Innovation Input Index(CO1)



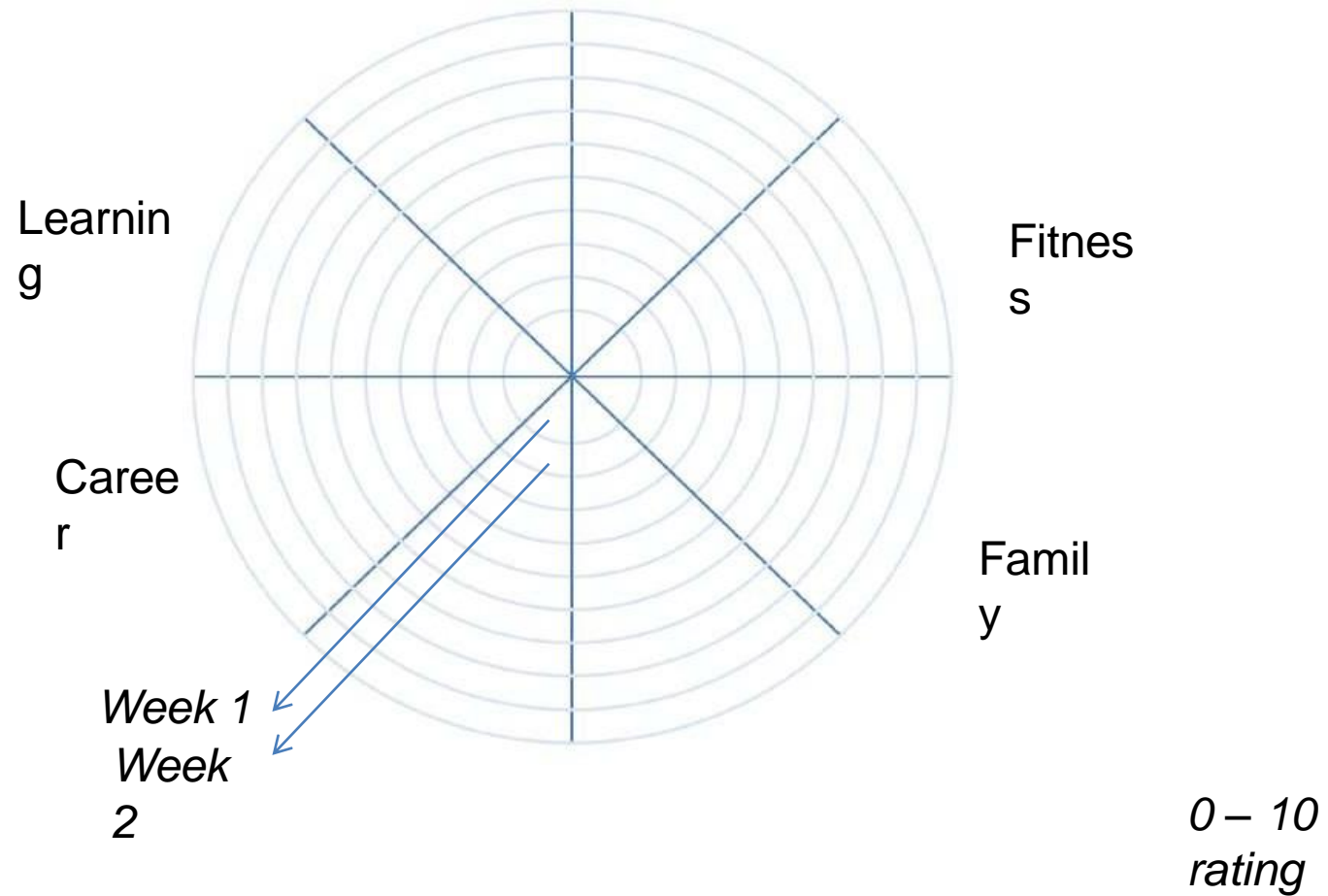
VISUALIZATION - Dream after 5 / 10 years..... (CO1)



- **Visualization** is about using images. It's not about drawing; it's about visual thinking. It pushes us beyond using words or language alone. It is a way of unlocking a different part of our brains that allows us to think nonverbally and that managers might not normally use.

- **Understand the problem**
- **Idea generation**
- **Build and test solutions**

WHEEL OF LIFE – How much time are we devoting to priorities? (CO1)



BALANCING PRIORITIES – 4 Quadrants of Stephen Covey (CO1)

	URGENT	NOT-URGENT
IMPORTANT	1. Crisis Zone <ul style="list-style-type: none"> • Crisis • Pressing Problems • Accidents 	2. Results Zone <ul style="list-style-type: none"> • Planning • Relationship Building • Recognizing New Opportunities • Recreation
NOT IMPORTANT	3. Routine Zone <ul style="list-style-type: none"> • Interruptions / Calls • Reports / Meetings • Pressing Matter • Popular Activities 	4. Escape Zone <ul style="list-style-type: none"> • Trivia, Busy Work • Mail, Phone calls • Time Wasters • Procrastination • Pleasure activities

- The golden circle has three layers_____, _____ & _____ .
 - a) Why, how and what
 - b) More, much and less
 - c) Good, Bad and worst
 - d) There, here and where
- _____ is a core component of the way that we communicate, whether we're aware of it or not.
 - a) Visualisation
 - b) Dialogue
 - c) Observation
 - d) Empathy



Figure 3. Different versions of the proposed wearable device for experimentation. (Source: DBS Bank)



Figure 4. The Smart Senior Package (Source: DBS Bank)

KEEP THE CHANGE – Bank Of America (CO1)

Keep the Change.™

Save automatically with everyday purchases.

A Free Service – Only from Bank of America.



<https://thisisdesignthinking.net/2018/09/feeling-in-control-bank-of-america-helps-customers-to-keep-the-change/>

LITER OF LIGHT – Low Cost Power of Light (CO1)

DAY LIGHT KIT



NIGHT LIGHT KIT



LITER OF LIGHT – Low Cost Power of Light (CO1)



https://www.youtube.com/watch?v=cQCHvO2H0_0

ARAVIND EYE CARE – Affordable & Efficient (CO1)



https://www.youtube.com/watch?time_continue=588&v=Wfsrg7aait8&embeds_referring_uri=https%3A%2F%2Fsocialbusinessdesign.org%2F&source_ve_path=Mjg2NjMsMTI3MzAwLDI4NjY2&feature=emb_logo

- “The problem of avoidable blindness rapidly escalating remained a major cause of concern in the Indian healthcare scenario”. This statement belongs to _____ .
 - a) Aravind Eye Care
 - b) Fortis
 - c) AIIMS
 - d) Escort
- _____ first initiative failed to produce more sales because they didn’t ask their customers the right questions.
 - a) McDonalds’
 - b) Dominos
 - c) KFC
 - d) Pizza Hut

- Discuss the “Why” behind each example (5-WHYS).
- Describe the Higher Purpose.
- Explain Visualization and it’s importance in design thinking.
- Illustrate reflections on wheel of life (in-class activity for visualization & Wheel of Life).
- How we can link reflection of wheels with Balancing Priorities.
- Summarize DBS Singapore and Bank of Americas’ Keep the Change Campaign.
- Discuss Litter of Light & Arvind Eye Care.

Uncover the “job to be done”



Fast Food Milkshake

40% of milkshakes
purchased by commuters
in the morning - to go

What job customers hire milkshakes to do: On a a long, boring commute, customers “needed something to keep that extra hand busy and to make the commute more interesting.” - Clayton Christensen, HBR

<http://hbswk.hbs.edu/item/clay-christensens-milkshake-marketing>

<https://www.youtube.com/watch?v=s9nbTB33hbg>

Amazon Easy Model E-Commerce for Rural India (CO1)



- **AMAZON EASY** is a store-owner assisted shopping model, creating a network of physical stores for users in **Tier 2 & Tier 3 cities, towns and villages**. Just like [amazon.in](https://www.amazon.in).

- **AMAZON EASY** is an **APP OR DESKTOP** based e-commerce assisted shopping experience. Buyers will be assisted by **Store owners**

- **AMAZON EASY** is an online shopping experience for purchase of wide range of products like electronics, apparel/clothes, day-to-day utilities, accessories, footwear, luxury products and so on.

Gillette – Safety First (CO1)



<https://sites.psu.edu/tizio/2016/04/05/gillettes-india-shaves-movement-case-study/>

Design Thinking Case Study – CareerBuddy(CO1)

Case Focuses on failures of application –

- Did not prioritize experience for users
- Didn't prototype in iterative ways
- Didn't engage all stakeholders
- Designed overly complex system

<https://www.loisel.ca/loisels-work/career-buddy-case-study>

Case Focuses on

- Development of an program (leveraging technology & social media) for healthier lifestyle.
- Conducted Research for their target users (ethnographic research) – unstated needs
- Importantly, they told users to visualize their well-being (after 5 years)
- Health is emotional subject – Case focuses on how stimuli was given to participants to garner their ideas about their health
- Arrived at 7 different personas depending on multiple factors
- What appealed to one persona totally differed to what appealed to other persona
- Gamification for Minimum Viable Prototype – Fail Fast Fail Quickly (making small incremental changes)
- This helped to arrive at notification time-table, reminders for exercises, small tasks about fitness etc.
- Platform uses technology, social feedback, app(s) etc for their users

<https://www.coursera.org/lecture/uva-darden-design-thinking-innovation/the-meyouhealth-story-part-i-what-is-W6tTs>

<https://www.coursera.org/lecture/uva-darden-design-thinking-innovation/the-meyouhealth-story-part-ii-what-if-YSBV7>



<https://www.coursera.org/lecture/uva-darden-design-thinking-innovation/the-ibm-story-iq0kE>

Case Focuses on

- Application of Design Thinking & IT / FinTech
- Framework of Unstated Needs (COPARIS) : Non Functional Requirements
- Story of how we arrived at that framework & conversation with a CIO of bank
- Customer First Approach reflecting User-Centric Design
- Framework for seamless experience across different operating systems
- Moving from Mystery to Algorithm
- Prototyping ,User Journeys, Last 2% for end-users
- Storytelling for internal users

<https://www.intellectdesign.com/technology/canvas/>

https://www.google.com/search?q=Design+thinking+case+study+canvas+intellect+design+arena+ltd+&sca_esv=563635297&bih=657&biw=1366&rlz=1C1YQLS_enIN1068IN1068&hl=en&tbm=vid&sxsrf=AB5stBgPg6hvtV2nPhUqTLCX3KdZQKHMDg%3A1694153397592&ei=tbr6ZILDI-vcseMP8bKSkAw&ved=0ahUKEwjC8dSbrZqBAxVrbmwGHXGZBBIQ4dUDCA0&uact=5&oq=Design+thinking+case+study+canvas+intellect+design+arena+ltd+&gs_lp=Eg1nd3Mtd2l6LXZpZGVvIj1EZXNpZ24gdGhpbmtpbmcmY2FzZSBzdHVkeSBjYW52YXMgaW50ZWxsZWNOIGRlc2lnbiBhcmVuYSBsdGQgMgQQIxgnSOMPUPUEWJ8lcAB4AJABAjgB0gGgAcFqgEFMC4zLjG4AQPIAQD4AQGIBgE&client=gws-wiz-video#fpstate=ive&vld=cid:9c821f95,vid:H3lwvVvm1mo,st:0

Writable Spaces – Transparent Glass (CO1)



Writable Spaces – Writable Walls (CO1)



Collaborative Seating Arrangements (CO1)



Collaborative Seating Arrangement



Connecting the dots – Different screens to present effectively(CO1)



Collaborative discussions through Magnetic Wall (CO1)



Collaborative discussions through Workshop Rooms – Writable Walls (CO1)



A Design Challenge is a way for employers to assess how well you approach design problems and is often a good way to put your skills to the test.

STEPS

- Start by taking a first stab at writing your design challenge down. It should be short and easy to remember. Try composing a single sentence that conveys the problem you want to solve. We often phrase these as How Might We questions to set our teams up to be solution-oriented and to generate a lot of ideas along the way.
- Now that you have a draft of your design challenge, explore and align on the goal or outcome you hope to achieve. Use the Align on your Impact Goals activity to ensure that you, your team and any other stakeholders have the same vision of success in mind.

- Next you'll want to think about the audience you're aiming to serve and the context, constraints, and influences in their lives. Use the Define your Audience activity to map the ecosystem around your user and the shifts or changes that you might need to influence through your design. This step will help you see how broad or narrow your challenge scope needs to be.
- Now that you've gathered and organized more information, review your design question and see if it still feels right. Refine your question and capture this, and the information you used to get there, in your Frame Your Design Challenge worksheet.
- Framing the right design challenge is key to arriving at a good solution. A quick test we often run on a design challenge is to see if we can come up with five possible solutions in just a few minutes. If so, you're likely on the right track. Try this, and make tweaks as needed to get to the right framing and scope.

Root cause analysis (RCA) is a method of problem solving used for identifying the root causes of faults or problems.

Steps to Apply the 5 Whys Tool

Step 1: Define the Problem

Step 2: Ask the Why questions

Step 3: Discussing the results

- Brainstorming is a great way to come with a plenty 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.
- Brainstorming can be used throughout the Design Thinking process to come up with a Design Solution.
- Brainstorming comes in handy when you need to come up with ideas.
- But have you ever been in one of those brainstorming sessions where you ended up feeling totally blank or, even worse, more confused?

- Can be done for a well-defined problem or issue.
- Also can be done for a problem/issue that has several possible solutions.
- Can happen only with few constraints.
- Comes to play when there is a need to generate ideas.
- Happens best in reasonably larger groups.

1. APPOINT A FACILITATOR

- During a brainstorm, there should be someone to lead the group.
- It doesn't have to be the same person as the decision maker, but it should be the one who is able to guide through each topic or agenda as well as build up a positive atmosphere in the room.
- The facilitator should also be the one who knows skills and expertise of people in the room, so that he/she could make the best out of everyone's potential.

2. BUILD ON EACH OTHER'S IDEA

- What's expected from a brainstorm is ideas. Many of them.
- But rather than just throwing one idea after another, try breaking them down or building them up so that you can see where they're linked together, and it helps you to see a bigger picture as well.
- Moreover, by breaking down or building up ideas, everyone has a chance to participate and witness the evolution of that idea together.

3. WRITE AND DRAW

- Visualizing ideas help different interpretations come to light and spark conversation.
- Display them by writing down or drawing them in one place where everyone can see, so that they can feel involved as a contributor and no idea gets lost during the process.

1. FORCE PARTICIPATION

Force participation, like assigning participants with a turn to speak, will not help generating ideas but add social pressure to the group and kill the organic flow of a conversation instead.

2. CRITICIZE OTHER PEOPLE'S IDEAS

- A brainstorm should be focusing on generating ideas rather than criticizing them.
- Avoid making comments on other people's opinions as stupid or useless. It'll destroy the atmosphere of collaboration and intimidate others, making them afraid of sharing their ideas.

3. HOLD THE SESSION IN THE EVENING

- A lot of people may overlook this point, but it's very important when the brainstorming session is happening.
- Try to avoid holding the session in the evening, especially at the time close to the end of business hours, since people could be distracted by their plans after work and be unable to focus.

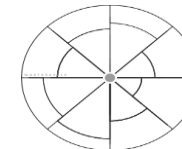
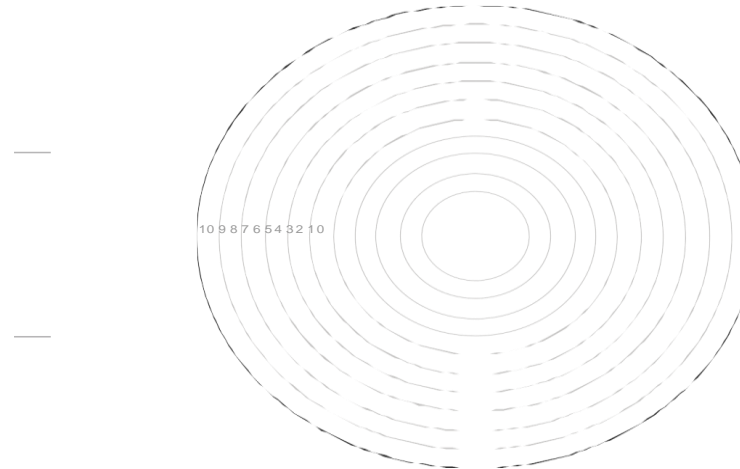
- The Department of science and technology within the government of INDIA has developed the INDIA INNOVATION INITIATIVE (i3) to create an innovation network, encouraging and promoting innovators and commercialization across the country.
- The global innovation index aims to capture the multi dimensional facets of innovation and provide the tools that can assists in tailoring policies or promote long term output growth, improved productivity, and job growth.

Main project allocation and expectations from the project (CO1)

WHEEL OF LIFE

Name: _____

Roll Number: _____



Example

Follow the following instructions to get your Wheel of Life ready in 2 minutes.

- Identify the 8 most relevant categories in your life. Every individual is unique and facing unique circumstances; hence, the most influential categories of life will vary from person to person.
- Label the eight sectors on the blank Wheel of Life according to the identified categories.
- Think about each category and assign a score to it based on the level of satisfaction you derive from that category.
- Each sector has been broken into 10 sections, the outermost being level 10 and the section closest to the center being level 1. Color or shade the sector up to the level of satisfaction that you identified in the above step.
- Repeat the above step for all the sectors.
- Once all the sectors of the circle are shaded depending on their satisfaction from each, using a marker or a thick pencil, draw an outline of the shaded area. The circumference of the shaded area is your Wheel of Life.