Ideation and creative thinking: Lateral thinking, designing, messages for different audiences - information revolution in India.

Ideation and creative thinking

1. What is ideation?

Ideation is the creative process of generating, developing, and communicating new ideas, where an idea is understood as a basic element of thought that can be either visual, concrete, or abstract. Ideation comprises all stages of a thought cycle, from innovation, to development, to actualization. Ideation can be conducted by individuals, organizations, or crowds. As such, it is an essential part of the design process, both in education and practice

❖ Ideation is the third phase of the Design Thinking process, and it's all about generating ideas. Before we explore ideation in more detail, let's briefly recap on the five stages of Design Thinking: Empathise, Define, Ideate, Prototype, and Test.

❖ Now, it's important to remember that Design Thinking is not a strictly linear process. However, the insights and outcomes derived from the Empathise and Define stages (getting to know your users and setting out a clear problem statement) will guide and inform a productive ideation session.

Ideation Methods to Spark Innovative Ideas

There are hundreds of ideation methods. Some methods are merely renamed or slightly adapted versions of more foundational techniques. Here you'll get brief overview of some of the best methods:

➢ Brainstorm
➢ Braindump
➢ Brainwrite
➢ Brainwalk
➢ Challenge Assumptions
➢ SCAMPER
➢ Mindmap
➢ Sketch or Sketchstorm
➢ Storyboard
➢ Analogies
➢ Provocation
➢ Movement
➢ Bodystorm
➢ Gamestorming
➢ Cheatstorm
➢ Crowdstorm
➢ Co-Creation Workshops
➢ Prototype
➢ Creative Pause

Key ideation techniques

❖ Now you have everything in place for your ideation session, there's just one thing left to do: Choose which ideation techniques you're going to use. Here are some of the most common ideation techniques used by designers:

Analogies

❖ By definition, analogy is "a cognitive process of transferring information or meaning from a particular subject to another." An analogy provides a comparison between one thing and another, serving as a means of explanation or clarification. What does this have to do with ideation and design? The analogy technique compares your situation—or design challenge—to something you are familiar with, enabling you to look at the problem in a new light and consider possible solutions. You can learn how to apply the analogy technique here.

Bodystorming

❖ The bodystorming technique gets you to physically experience a situation in order to spark new ideas. If you're struggling to get close to the problem, bodystorming is a great way to generate genuine user empathy. How does it work? You set up a physical experience resembling the problem you are trying to solve, using people, props, or a digital prototype. Based on your own interactions with, and reactions to, this environment, it may be easier to come up with ideas.

Brainstorming

❖ Brainstorming is one of the oldest tricks in the book when it comes to generating new ideas as a group. In a brainstorming session, you verbally bounce ideas off of each other in the hopes of finding a blended solution.

Brainwriting

❖ An alternative to traditional brainstorming is brainwriting. Instead of verbally sharing ideas, participants write down their ideas before passing them on to someone else. The next person reads these ideas and adds their own, and so the process continues until each person's ideas have done a full rotation. All ideas are then collected and placed in front of the group for discussion.

Brainwalking

❖ This is the more dynamic, physical version of brainwriting. Instead of passing pieces of paper around the room, the designers themselves move between different "ideation stations". Just like brainwriting, they'll add their own ideas before moving on to the next station.

Challenging Assumptions

❖ As we know, challenging assumptions is crucial to breaking conventional thought patterns and coming up with new ideas. A popular ideation technique is to come up with a number of assumptions that are inherent to your design challenge. As a group, you'll then go through these assumptions and discuss whether they are really true, or if they're simply there because they've never been questioned. In putting these assumptions to the test, you can determine what characteristics are really necessary, or which solutions could be used instead.

DESIGN THINKING: A NON-LINEAR PROCESS
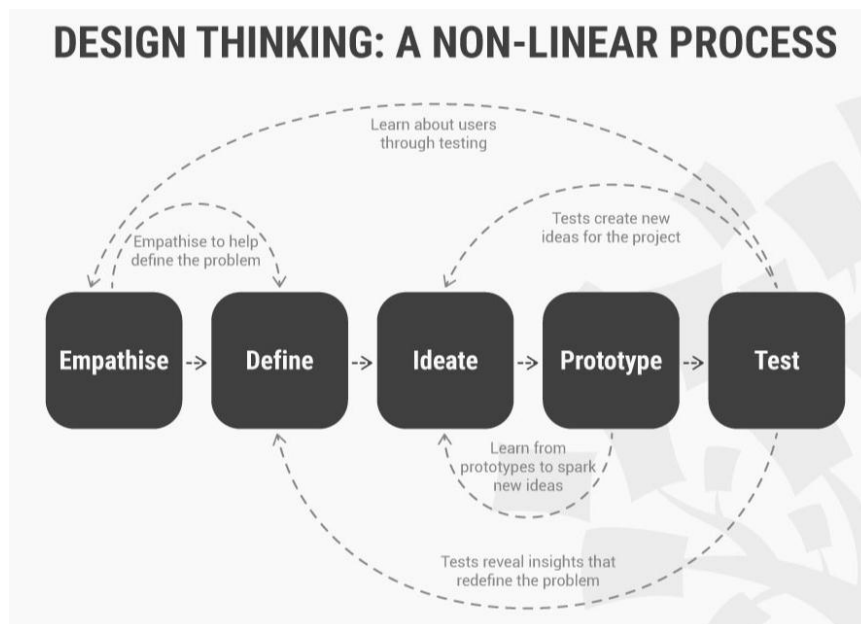
What Is Creative Thinking?
- ❖ Creative thinking means thinking outside the box. Often, creativity involves lateral thinking, which is the ability to perceive patterns that are not obvious.2

- ❖ Creative thinking might mean devising new ways to carry out tasks, solve problems, and meet challenges. It means bringing a fresh, and sometimes unorthodox, perspective to your work. This way of thinking can help departments and organizations be more productive.

How Creative Thinking Works
- ❖ Opportunities for creative thought in the workplace vary from obvious artistic positions to highly technical ones. Generally, anything that involves an "aha" moment is considered creative. Here are some examples of how to display creative thinking in different jobs.

Artistic Creativity
- ❖ You don't have to be an artist for your work to have an artistic element. Perhaps you arrange retail displays for maximum impact or shape the path of an enticing hiking trail. Other artistically creative tasks might include designing logos, writing advertising copy, creating the packaging for a product, or drafting a phone script for a fundraising drive.

Creative Problem-Solving
- ❖ Creative problem-solving stands out as innovative. A creative problem-solver will find new solutions rather than simply identifying and implementing the norm. You might brainstorm new ways to reduce energy use, find new ways to cut costs during a budget crisis, or develop a unique litigation strategy to defend a client.

Creativity in STEM
- ❖ Some people think of science and engineering as the opposite of art and creativity. That's not true. The fields of science, technology, engineering, and math (STEM) are highly creative.

Designing a more efficient assembly line robot, writing an innovative new computer program, or developing a testable hypothesis are all highly creative acts.

Creative thinking is expressed in several ways. Here are some of the types of creative thinking you might see in the workplace.

Analysis

❖ Before thinking creatively about something, you first have to be able to understand it. This requires the ability to examine things carefully to know what they mean. Whether you are looking at a text, a data set, a lesson plan, or an equation, you need to be able to analyze it first.

Open-Mindedness

❖ To think creatively, set aside any assumptions or biases you may have, and look at things in a completely new way. By coming to a problem with an open mind, you allow yourself the chance to think creatively.

Problem-Solving

❖ Employers want creative employees who will help them to solve work-related issues. When faced with a problem, consider ways that you can solve it before asking for help. If you need the input of a manager, suggest solutions rather than just presenting problems.

Organization

❖ This might seem counterintuitive: Aren't creative people known for being somewhat disorganized? Actually, organization is an essential part of creativity. While you might need to get a bit messy when trying out a new idea, you need to organize your ideas so others will understand and follow through with your vision.

Communication

❖ People will only appreciate your creative idea or solution if you communicate it effectively. You need to have strong written and oral communication skills.

<h2 style="text-align:center">**What is lateral thinking?**</h2>

❖ It essentially means being able to think creatively or "outside the box" in order to solve a problem.

❖ Usually, logical thinking is used to solve problems in a direct, straightforward way (also known as vertical thinking). Lateral thinking however, looks at things from a sideways perspective (also known as horizontal thinking), in order to find answers that aren't immediately apparent.

❖ The term was first coined by psychologist Edward de Bono. These skills are often required in creative careers like marketing or advertising.

Lateral Thinking Techniques

1. Alternatives
2. Focus
3. Challenge
4. Random Entry
5. Provocation and Movement
6. Harvesting
7. Treatment of Ideas

Alternatives

This techniques is about using concepts as a breeding ground for new ideas. Concepts are general theories or ways of doing things. By thinking of a variety of ways to implement a concept is one way to generate ideas. You can then further assessed each specific idea to generate additional concepts. Establishing a new concept creates a whole new way for generating more ideas.

Focus

This techniques is about learning when and how to change your focus to improve your creative efforts. You can learn to focus on areas that other people have not bothered to think about. Doing so may lead you to a breakthrough idea simply because you are the first person to pay any attention to that area.

Challenge

Challenge technique is about breaking free from the limits of traditional thinking and the accepted ways of doing things. It is based on the assumption that there may be a different and better way to do something even if there is no apparent problem with the current way.

Random Entry

Random Entry techniques is about using unconnected input to open up new lines of thinking. This technique draws on your mind to find connections between seemingly unrelated things. With this techniques, you can use a randomly chosen word, picture, sound, or other stimulus to open new lines of thinking.

Provocation and Movement

Provocation is about generating provoking thoughts and using them to build new ideas. It is a process that enables you to think outside the box in order to get a compelling list of innovative ideas to consider.

Harvesting

Harvesting techniques involves selecting specific ideas that seem practical and have the most value then reshaping them into practical solutions. It is about turning starter ideas into workable ideas. This technique is done toward the end of a thinking session in order to select ideas that may prove to be valuable in the current situation or in the future. Harvesting helps you identify ideas that could be implemented right away as well as those that may need more work.

Treatment of Ideas

Treatment of Ideas involves shaping and strengthening ideas so they best fit a given organization or situation. The treatment technique is best for working with starter ideas to make them more specific and practical for a given situation. For example, you may think of some constraints that might interfere with the execution of an idea, so you shape or restructure the idea to fit within the constraints.

What careers use lateral thinking?
- ❖ Lateral thinking is a useful skill whatever job you end up doing, but there are some career paths where it can really come in handy. Here are some examples of lateral thinking career choices:

Advertising
- ❖ People who work in advertising use this type of thinking to persuade us to buy products. If it's often those adverts that make us think or a little different that we remember the most.

Marketing
- ❖ Marketers often have to come up with novel or creative ways to promote products and services. Although there are some rules in marketing, it's often the campaigns that bend the rules slightly that are successful.

Media
- ❖ Working in the media, you may have to use these thinking skills to deliver a message in a creative way. Whether you're a journalist, filmmaker or press release writer, some sideways thinking can come in handy.

**Audience(s), Message, Media, Messenger**

Once you figure out *why* you're creating a communications strategy then you can figure out *how* to

use it. The "how" requires just four steps:

1. Understand your audience(s)

2. Craft the message for that specific audience

3. Select the media you want the message to be read/seen/heard on

4. Select the messenger you want to carry your message

Step 1: Who's the Audience(s)?

An audience means--who specifically you want your messages to reach. Is it all the people on earth? Everyone in San Francisco? Potential customers such as gamers who like to play specific types of games? Or people inside companies with a specific title, like product or program managers, CIOs, etc? Venture Capitalists who may want to invest? Other companies that may want to acquire you?

What's confusing is that often there are multiple audiences you want to communicate with. So, refer to your strategy: Are you trying to reach potential customers or potential investors and acquirers? These are very different audiences, each requires its own messages, media and messengers.
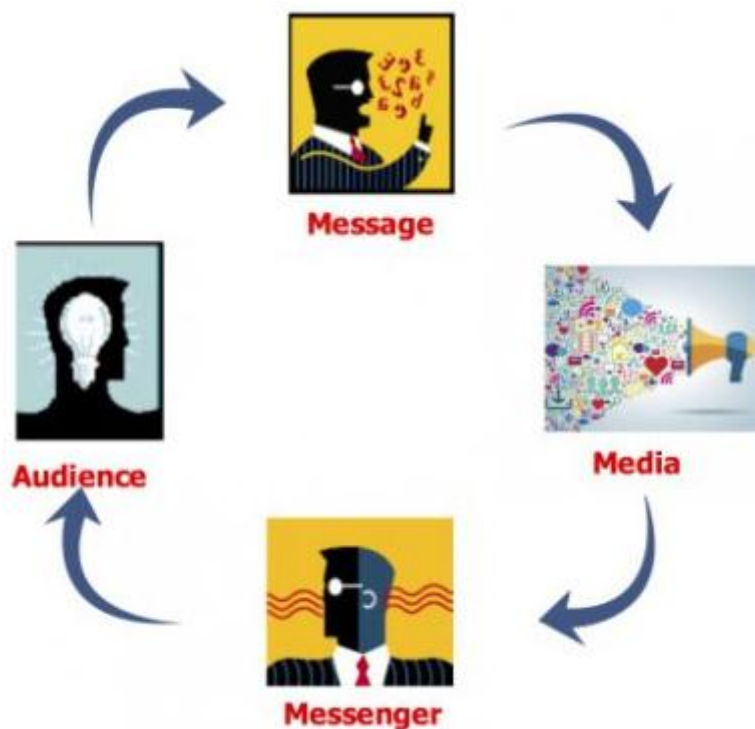
Step 2: What's the Message?
Messages are what you delivering to the audience(s) you've selected. Messages answer three

questions:

1. Why should the audience care?

2. What are you offering?

3. What's the call to action?

Your customers have already told you how to craft the first part of your message. The answer to

"Why should your audience care?" comes directly from the pains and gains on the right side of the

value proposition canvas.

And the answer to the second question "What are you offering?" comes from the left side of the

value proposition canvas. It's not just the product feature list, but the pain relievers and gain creators.

Step 3: Media
Media means the type of communications media each audience member reads/listens to/watches. Is

could be print (newspapers/magazine), Internet (website, podcasts, etc.), broadcast (TV, radio, etc.)

or social media (Facebook, Twitter, etc.). In customer discovery, you asked prospects how they get

information about new companies and new products. (If not, get back out and do so!) The media

your prospective customers told you they use ought to be on top of your target media.

The online media your company controls (your corporate website, company Facebook page, Twitter,

Instagram, etc.) should be the first place you experiment finding your audience(s) and message.

Step 4: Messengers
Messengers are the well-placed and highly leveraged individuals who have influence over your

audience(s). Messengers convey and amplify your message to your audience through the media

you've chosen.

There are four types of messengers: reporters, experts, evangelists and connectors. (Each audience

will have its own unique set of messengers.)

Information revolution

The term information revolution describes current economic, social and technological trends beyond the Industrial Revolution. The information revolution was enabled by advances in semiconductor technology, particularly the metal–oxide–semiconductor field-effect transistor (MOSFET) and the integrated circuit (IC) chip.

The theory of information revolution

1. The object of economic activities can be conceptualized according to the fundamental distinction between matter, energy, and information. These apply both to the object of each economic activity, as well as within each economic activity or enterprise. For instance, an industry may process matter (e.g. iron) using energy and information (production and process technologies, management, etc.).
2. Information is a factor of production (along with capital, labor, land (economics)), as well as a product sold in the market, that is, a commodity. As such, it acquires use value and exchange value, and therefore a price.
3. All products have use value, exchange value, and informational value. The latter can be measured by the information content of the product, in terms of innovation, design, etc.
4. Industries develop information-generating activities, the so-called Research and Development (R&D) functions.
5. Enterprises, and society at large, develop the information control and processing functions, in the form of management structures; these are also called "white-collar workers", "bureaucracy", "managerial functions", etc.
6. Labor can be classified according to the object of labor, into information labor and non-information labor.
7. Information activities constitute a large, new economic sector, the information sector along with the traditional primary sector, secondary sector, and tertiary sector, according to the three-sector hypothesis. These should be restated because they are based on the ambiguous definitions made by Colin Clark (1940), who included in the tertiary sector all activities that have not been included in the primary (agriculture, forestry, etc.) and secondary (manufacturing) sectors.[13] The quaternary sector and the quinary sector of the economy attempt to classify these new activities, but their definitions are not based on a clear conceptual scheme, although the latter is considered by some as equivalent with the information sector.
8. From a strategic point of view, sectors can be defined as information sector, means of production, means of consumption, thus extending the classical Ricardo-Marx model of the Capitalist mode of production (see Influences on Karl Marx). Marx stressed in many occasions the role of the "intellectual element" in production, but failed to find a place for it into his model.[14][15]
9. Innovations are the result of the production of new information, as new products, new methods of production, patents, etc. Diffusion of innovations manifests saturation effects (related term: market saturation), following certain cyclical patterns and creating "economic waves", also referred to as "business cycles". There are various types of waves, such as Kondratiev wave (54 years), Kuznets swing (18 years), Juglar cycle (9 years) and Kitchin (about 4 years, see also Joseph Schumpeter) distinguished by their nature, duration, and, thus, economic impact.
10. Diffusion of innovations causes structural-sectoral shifts in the economy, which can be smooth or can create crisis and renewal, a process which Joseph Schumpeter called vividly "creative destruction".