

## MODULE 4

### INNOVATIVE LEADERSHIP and DESIGN THINKING

#### A. INNOVATIVE LEADERSHIP

##### Concept of Emotional and Social Intelligence

Emotional and social intelligence (ESI) has become a key talking point over the last few years. However, the concept is not a new one. In fact, the groundwork for the modern theory was laid more than 30 years ago and properly defined by various notable figures within psychology over two decades ago.

The initial concept of ESI was posited by John D. Mayer, Peter Salovey and David R. Caruso, and was subsequently developed and interpreted in alternative ways by Daniel Goleman and Reuven Bar-On.

##### **The Mayer et al. Model of Emotional and Social Intelligence**

ESI as a theoretical concept was generally the product of personality psychologist John D. Mayer in association with social psychologist Peter Salovey and management psychologist David R. Caruso (the latter to a lesser extent) during the early 1990s. These researchers coined the notion of ESI, and their work laid the foundations for subsequent conceptual interpretations.

Prior to their work, many considered emotion to be detrimental to work and life.

However, they envisaged ESI to be another form of higher cognition, separate from general intelligence (IQ), whose importance had not at the time been considered with regards to functionality and achievement in people's lifestyles and careers.

The definition of ESI given by Mayer and Salovey in 1997 was that:

"Emotional intelligence is the ability to perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth."

##### **1. The Mayer-Salovey model consists of four interconnected abilities (or branches):**

- **Perception** – perceiving emotion in yourself, others and your environment
- **Facilitation** – using emotion to interpret the world and changes in different ways
- **Understanding** – conceptual knowledge of emotions, how they change and their impacts
- **Management/Regulation** – the ability to steer your emotions and those of your peers

Though these are all interconnected processes and abilities, they suggest that there is perhaps a hierarchy and higher levels such as regulation (where emotions and thinking are interconnected) require a greater level of emotional intelligence than the lowest level, perception.

Studies such as Lane et al. (1990) supported this concept by suggesting that those who were strong in one branch of the Mayer-Salovey hypothetical model generally were also very competent in others.

Mayer et al. also developed a test – the Mayor-Salovey-Caruso Emotional Intelligence Test (MSCEIT) – which measures ability in each of the four branches/abilities using two tests to quantify overall ESI.

### 1. **The Goleman Model of Emotional and Social Intelligence**

Science journalist Daniel Goleman was the one to put the psychological theory of ESI on the map for the general public. He wrote three bestsellers on the topic to date and emphasized the importance of ESI to a functional life.

He also defined four main components involved in the functioning of emotional and social intelligence, a few years after Mayer and Salovey put forth their research:

- **Self-regulation.** This consists of an ability to think prior to acting, and also to suspend emotional judgment on occurrences. In addition to this, it involves having control over mood swings and impulses, and thus not allowing them to disrupt one's quality of life. Its trademarks include openness to change, integrity, reliability, and an ease in accepting ambiguity.
- **Self-awareness.** A person that is self-aware understands what drives their behavior, as well as the effects that it has on others. The most common trademarks are self-deprecating humor, realistic assessments of one's conduit, and a healthy dose of self-confidence. It is the ability to not take yourself too seriously, while at the same time understating your value.
- **Relationship skills.** When you possess strong social skills, you effortlessly form relationships with your peers, as well as manage them correctly. The trademarks of this characteristic consist of team leadership capacities, managerial aptitudes, and persuasiveness.
- **Social awareness.** Possessing empathic traits does not necessarily involve feeling compassion for others, but rather understanding their emotional makeup and treating them according to subsequent reactions. Trademarks consist of customer service skills, the ability to recruit talent, and sensitivity to sociocultural factors` such as gender, ethnicity, or sexual orientation.

This is one of the most-cited measures of ESI, though it does have its issues, such as a potential lack of internal reliability and application to practical activities.

Goleman also emphasized the value of internal motivation.

Professionals that are internally motivated excel at their job for reasons that go beyond status, money, and other material benefits.

They find joy in their actions and have an immense thirst for knowledge that surpasses the satisfaction that comes from external rewards. Their trademarks qualities involve optimism, as well as a desire to achieve greater things each day. Goleman also posits that the higher someone rises within an organisation, the greater their social skills are required to be.

Therefore, senior directors and managers are required to be competent in social intelligence.

## 2. The Bar-On Model of Social and Emotional Intelligence

The most comprehensive definition is perhaps that outlined by Israeli psychologist Reuven Bar-On, in various publications since 1982.

In his perception, the term ESI embodies: “a cross-section of interrelated emotional and social competencies, skills and facilitators that impact intelligent behavior”.

There are five main markers of emotional and social intelligence as defined by Bar-On, namely:

- Interpersonal
- Decision-making
- Self-expression
- Self-participation
- Stress management

They are divided into 15 representative subdivisions:

- **Interpersonal relationships, empathy, social responsibility**
- **Problem-solving, reality testing, impulse control**
- **Emotional expression, assertiveness, independence**
- **Self-regard, self-actualization, emotional self-awareness**
- **Flexibility, stress tolerance, and optimism**

In addition to this, he outlined a method of quantifying and measuring ESI; a self-report measure known as Emotional Quotient Inventory (EQ-i). This system aims to identify and predict ESI markers and their influence on one’s managerial aptitudes. The 15 sub-divisions listed above form the 15 sub-scale scores which together produce a representative EQ-i, on a scale similar to that used by IQ tests.

All of these scales coalesce to forming the motivation behind every instance of human behavior and the relationships we form during our life. Bar-On has been continuing his studies of ESI since 1982, and his EQ-I has been revised, updated, and improved countless times since the initial iteration of 1997.

When applied correctly, the model has been posited to predict factors such as academic performance, career path, didactic and organizational effectiveness, occupational performance and leadership, and even psychological/physical health and wellbeing.

However, its validity has been debated over the years (for instance, some have suggested that it correlated with personality traits which render it ineffective as a measure) but it remains one of the most accepted analyses of ESI to date.

#### ESI and the Development of Leadership Skills

The three aforementioned theories on emotional and social intelligence discussed the influence of the concept in an executive setting. So, what exactly about this characteristic makes people good managers?

According to the Harvard Business Review, possessing the aforementioned qualities modify the brain chemistry of both leaders and their followers.

Simply put, leaders are neurologically wired to handle the tasks that correspond to their position.

Their intrusion is much sharper, their decision-making process relies less on second-guessing and more on immediate action, and they intrinsically possess the necessary tools to convince others to follow.

Nevertheless, this doesn't mean that you should be born with this type of behaviour deeply ingrained into your synapses. In fact, ESI-based leadership can be coached into people, as emphasized by a 2017 study conducted in South Africa and published in the South African Journal of Economic and Management Sciences.

In a nutshell, the markers or characteristics described in the aforementioned ESI models put together by renowned psychologists and scientific experts alike can be awoken in any of us with the right coaching. This is why a successful manager should always rely on feedback and request assistance when necessary.

Understanding the emotions of the people around us can improve our relationship skills, and therefore our ability to influence and communicate with others.

This comes through an ability to read others' feelings and reactions more accurately and effectively and to thus adapt our approach and employ appropriate skills to handle the situation.

Ways we can develop our ESI include:

- Team-building exercises
- Coaching
- Training in negotiation and networking

Emotional and social intelligence in a unitary concept that consists of multiple colliding facets that create a leader through their powers combined. It isn't a new concept, but only recently are managers coming to understand its importance and relevance to the professional environment. If you have a proclivity for leadership and are unsure of how to proceed, don't be afraid to ask for feedback. Thriving follows the right amount of ESI coaching, after all.

## ❖ Synthesis of Human and Artificial Intelligence

Artificial intelligence (AI) is essentially the simulation of human intelligence. Today's AI can only simulate, replace, extend, or expand part of human intelligence. In the future, the research and development of cutting-edge technologies such as brain-computer interface (BCI) together with the development of the human brain will eventually usher in a strong AI era, when AI can simulate and replace human's imagination, emotion, intuition, potential, tacit knowledge, and other kinds of personalized intelligence. Breakthroughs in algorithms represented by cognitive computing promote the continuous penetration of AI into fields such as education, commerce, and medical treatment to build up AI service space. As to human concern, namely, who controls whom between humankind and intelligent machines, the answer is that AI can only become a service provider for human beings, demonstrating the value rationality of following ethics.

The term "artificial intelligence" was first used by John McCarthy at Dartmouth Conference in 1956. Since then, artificial intelligence (AI) has gone through three booms during decades of scientific and technological development. The first boom was from 1956 to 1976. Since the 1950s, humans had successively invented the first perception neural network software and chat software and proved some mathematical theorems, exclaiming that the "AI era is coming" and that "robots will surpass human beings in 10 years." During the second boom (1976–2006), Hopfield neural network and BT training algorithm proposed in the 1980s made AI popular again, which led to the emergence of speech recognition, speech translation plan, and Japan's fifth-generation computer idea. However, these ideas fell through and the second boom broke up again. After data accumulated to a certain amount, some results would stop rising to some extent. During the third boom (2006 till now), AI broke out again as Hinton put forward deep learning technology in 2006 and Image Net Competition made breakthroughs in image recognition in 2012. In 2016, Alpha Go defeated Lee Se-dol, once the world champion of Go, and that was regarded as the peak of AI development.

Now, humans have made great progress in various fields such as cognitive psychology, neuroscience, quantum physics, and brain science, and theories related to artificial intelligence have kept emerging. Without the integrated development of computer science with brain science, neuropsychology, linguistics, and other disciplines, the research and development of AI would not have made such great achievements. AI research has also presented some research highlights such as machine learning, neural network (NN), expert system, genetic algorithm (GA), fuzzy inference system (FIS), support vector machine (SVM), and particle swarm optimization (PSO). AI has been widely used in each aspect of human life, even surpassing human intelligence in some areas. AI can, to some extent, replace humans to complete the tasks of recognition, decision-making, and control. In terms of recognition, AI can distinguish, classify, and retrieve information. In the aspect of decision-making, AI can carry out numerical object evaluation and matching. Regarding control, AI can complete performance generation, design and action optimization, and operation automation.

However, scientific, technological, and social problems arisen from the development of AI are drawing more attention from the public. While promoting social progress, the widespread application of AI also has some prominent negative effects. For example, the application of robot

has led to unemployment; the application of AI has widened the gap of wealth; AI algorithms have caused bias; big data has resulted in privacy leakage and degeneration of human's spiritual life. All these are social problems brought about by the application of AI technologies. In his book *AI Future*, Kai-fu Lee analyzed the employment risks of manual and mental labor caused by AI. For manual workers, structured jobs with weak social interactions and low skills are facing higher risks, such as truck drivers, fast food cooks, and sewing workers. For mental workers, those engaged in weak social and low creative jobs are in greater danger of unemployment, such as radiologists and telemarketers. Therefore, in the AI era, it is inevitable for some occupations or jobs to be replaced. If your job does not require much talent and skills can be acquired through training, if what you need to do is a lot of repetitive work without too much thinking, and if you work in a narrow social network and have little communication with others, then you are highly likely to be replaced by AI.

The deconstruction and reconstruction of the occupational structure is just one aspect of what AI has brought about. Some people even put forward the "machine threat theory." Understanding AI is the prerequisite of applying it. AI is in essence the simulation of human intelligence and its development depends on breakthroughs of algorithms. Considering this relationship as well as human's confusion and concerns in understanding AI, this paper first analyzes the nature of AI, AI, and consciousness, as well as the features and advantages of cognitive computing, and further forecasts the future development of AI.

### **The Nature and Characteristics of AI**

The difference between AI and ordinary computers lies in the new forms and technical means of AI, but they share the same nature. AI is still a tool of humans. To accurately grasp AI, we can make an analysis from two aspects: hardware and software. From the hardware point of view, intelligent machines like computers and robots are physical and chemical entities separated from human brains. Although they are not physiological structures of human reflection and control systems, they are developed from the hardware of the system. The human brain is also hardware, but it is a physiological entity instead of a physical or chemical one. The human brain provides the material base of the reflection and control function. In this sense, the brain entity provides the structure and thinking offers the function. Intelligent machines have physical and chemical structures, in which electrons make a physical movement. This structure is a prerequisite for AI. The physiological structure of the human brain is different from the structure of intelligent machines, so they have no physiological or fixed hardware connections. Therefore, although intelligent machines are developed from the hardware of human's reflection and control system, their development is relatively independent. However, this does not mean that the hardware of intelligent machines can never be coupled with the human brain. Instead, it shows that strengthening the hardware connection between the human brain and intelligent machines is an attractive direction for intelligent development.

The intelligence of AI lies in its software. Why is AI possible? How is it related to human brain intelligence? To answer these questions, we need to carry out software analysis. Thinking is the function of the human brain. The analysis of thinking can be carried out through the functional structure method, hierarchical method, or the two approaches combined. From the hierarchy

perspective, thinking has several layers: the first one is the layer of form, which is language; and the second one is the layer of content, which is the consciousness concept. These two layers are inward analysis of thinking itself. From the perspective of its interaction with its applied object, there is another layer of thinking, i.e., its outward function layer. When these three layers are divided according to a functional structure, language and consciousness concept are the internal structures, while the functional layer boasts the external function of thinking and consciousness, namely, intelligence. Consciousness concept, as the internal structure of thinking, refers to the structure of consciousness. Depending on the internal structure, reflection and control activities have corresponding manifestations at all internal levels of thinking. In the content level, it is shown as the activities of various consciousness's and in the form level as corresponding language activities. Without the activities at all internal layers of thinking, there would be no overall intelligence or activity. Activities at the language layer are coding activities inside the human brain, which can be carried out directly by the bioelectrical movement. Therefore, when people think of specific words, there are always corresponding specific electrical signals in the brain.

The fact that thinking activities have specific manifestations at the language level shows that thinking can be formalized through language. Language is not a conscious or conceptual thing. Instead, it has a corresponding movement of electrical signals in the brain, showing the characteristic of physical movement. As far as language and electrical signals are concerned, language is the content while electrical signals are the form. Language outside the brain refers to the sound that can be heard and words that can be seen. The internalization of language outside the brain is completed by the brain's thinking language, whose existence depends on the physiological, chemical, and physical movements of the brain. When dissecting a human brain, there is no language entity inside. Instead, only corresponding brain structures and movement can be found. Therefore, the role of the language inside the brain is highlighted as the coding rules of electronic movement. Only when there is a specific movement of electrical signals in the brain can there be language movement and further consciousness activities. These serial relationships lay a foundation for formalizing thinking activities, namely, linguisticization, and then for the electronic movement. This is the most fundamental reason why electronic computers are able to simulate the intelligence of the human brain.

In short, AI is not independent. It is within the scope of human intelligence and part of it. The reason why AI belongs to human intelligence is that it is a product of human intelligence developed to a certain historical stage, a tool of the human brain, and an expansion of human intelligence. All AI is extending along the direction of human intelligence, and all their functions in various fields of social life are within the scope of reflection and control. With the development of humankind, all aspects of social life today are increasingly complex, which makes it more and more difficult for the human brain to make direct adjustment and control and increasingly unable for mankind to meet the requirements in both magnitude and precision. As a result, the activities in many fields of society cannot be regulated and controlled only by human intelligence. Of course, this is not the limitation of the human brain in quality, but in quantity. Therefore, the development of human intelligence can be achieved by brain expansion in a certain way, so as to meet the requirements of social life.

## **AI and Human Consciousness**

In the coming years, machines will get smarter. If we cannot distinguish a machine from a human, then we have reason to think that this machine is intelligent. Therefore, the question we are going to face is as follows: can an intelligent machine be considered as having consciousness? This requires us to understand the relationship between AI and human consciousness.

### **AI Promotes the Development of Human Intelligence**

As a necessary supplement to human intelligence, AI effectively extends the human brain and enlarges its intelligence. AI and the human brain are correlated and have been supporting each other forward. All these make human cognition scope continuously expand to the micro- and macro poles, enabling people to have a deeper understanding of the essence of things indirectly, and greatly enriching the content of consciousness.

AI, which simulates human operational intelligence, is far superior to human beings in computing speed, capacity, and accuracy. It indeed can liberate mental labor. With the support of the Internet and big data technology, AI will help humans in more fields and more profoundly, even conducting rescue operations in extreme environments. In the field of medical practice, brain stimulation is helpful to restore the damaged brain nerve. In terms of transportation, with the application of data, connection, real-time sensing, and traffic prediction, humans will experience shared riding and automatic driving for the first time. The revolution of the third-generation culture carrier represented by AI will promote the great change of human memory and learning style. AI is our brain assist device, which stores a lot of information in an intact manner. The undertaker of memory and thinking is gradually separating from the human body and tends to become objectified. Portable computers have replicated what we call as cognition, and even our human rationality also faces challenges. However, human beings can use their dynamic intuition and give play to their innovation abilities. The printing carrier once ushered in a period of flourishing human culture. Now, we should keep an open mind on the promotion role of AI in human consciousness. AI technology has put forward new requirements for human data observing and processing ability. The workers who receive information technology (IT) vocational training will better adapt to the changes, so we can be one step forward in the transformation to an intelligence-intensive society. With the help of intelligent machines, humans could become new-type, creative, and reliable cognitive subjects.

### **Human Consciousness Restricts the Development of AI**

The nature of consciousness affects the development of AI. Consciousness can be introspective, which reveals what cannot be reached by the objective research on consciousness. Human consciousness is not a passive or negative reflection of reality; instead, it is a positive and active one. When determining the behavior of the subject, the external experience must be reflected through the inner world as well as the thinking and feeling system of the subject. The so-called animal consciousness is a statement untested, because animals cannot distinguish themselves

from their activities. They are integral. The same is true of artificial consciousness. Although AI can complete part of human thinking activities, it does not understand the meaning of doing this. It operates mechanically and aimlessly. Even if AI has a purpose, it is all instilled by humans to achieve goals of themselves. After 70 years, the movement of logical functionalism ended in a dismal way, while the structuralism of consciousness points out a new direction for AI. Structuralism has a successively experienced semantic network and neural network. The latter one argues that connections among things in the world are all the same, while the differences lie in their frequencies of occurrence. The neural network cannot distinguish the “White” as a name and the “White” as a color. This kind of AI, in essence, is a program or function that makes similar reflex responses to specific stimuli. Alpha Go is weak AI, and programming is not an effective way to achieve a machine’s consciousness.

The change and development of consciousness bring about corresponding changes in AI. Under the consciousness theory system of a subject-object dichotomy, abstract operational rules promote the R&D of algorithms. This theory argues that human consciousness can be simply summarized as the brain’s symbolic operation, while the characteristics of consciousness in intuition, common sense, and external environment are ignored. In fact, the change in AI development level is indeed related to the development of human consciousness. Behaviorism and structuralism, which are similar to the human brain neural network, are simulations of human adaptive mechanisms and not restricted by forms. Subject-object integration, a philosophical trend focusing on the interaction with the real world, provides ideological inspiration for AI. Human consciousness theory criticizes principles of form. Deep learning represented by Alpha Go has gotten rid of structural restrictions and acquired problem-solving strategies through learning human’s experiences. In 2016, by adopting Monte-Carlo Tree Search (MCTS) and deep learning (DL) to think from the whole picture and make the optimal choice, Alpha Go, a program developed by Deep Mind, won the Go game, getting rid of the restrictions of brute force method. When embodiment philosophy arose, AI began to imitate the human body’s movement and gestures, such as simulating the rules of facial movement. To some extent, the fact that AI began to shift its focus to the human body and external environment is inseparable from the exposition of consciousness by phenomenologists. We can tell that although the philosophical theory of consciousness cannot directly improve the technical essence of AI, its development and change will provide foresight for the exploration of AI.

### **AI and Cognitive Computing Technology**

AI is a broad concept. From the perspective of ultimate goals, cognitive computing is an important way to realize AI. Cognitive computing refers to cognition and effective expression of the internal meaning of the objective world as well as of various pieces of information and data that can be observed and measured at present. It is the expression of AI toward specific problems to be solved.

### **The Concept of Cognitive Computing**

Cognitive computing is a technique that enables humans to cooperate with machines. This term comes from cognitive science and artificial intelligence. It builds algorithms with theories of

cognitive science to simulate human's objective cognition and psychological cognition process, so as to enable machines to reach a certain degree of "brain-like" cognitive intelligence. Cognitive computing uses technology and algorithm to automatically extract concepts and relationships from data, understand their meanings, learn independently from data patterns and prior experience, and ultimately extend what people or machines could do on their own. Based on this, Roma further put forward three main applications of cognitive computing: robotic and cognitive automation to automate repeatable tasks to improve efficiency, quality, and accuracy; cognitive insights to uncover hidden patterns and relationships to identify new opportunities for innovation; and cognitive engagement to drive customer actions by delivering hyper-personalization at scale. Cognitive computing is a synthesis of technologies where each of them contributes a distinct methodology for addressing problems in its domain. Artificial Neural Network (ANN) uses the interactions of biological neurons as a model for pattern recognition, decision, modeling, and forecasting. Fuzzy logic uses approximate information in a manner similar to the human decision process and is useful in control and decision-making applications. Evolutionary computation adopts natural selection and evolution theory and is useful in optimization. Cognitive computing provides an effective way to analyze technological processes and human activities.

Based on the above concepts, cognitive computing can be simply understood as a technical field that integrates multiple technologies and aims to use artificial mechanisms based on computing technology to realize the human cognitive function. It is the core technical field of cognitive science. In essence, cognitive computing is expected to understand the internal relationships among various kinds of data and phenomena in the real world through technologies, such as AI, pattern recognition, and machine learning, and further develop tools and systems to improve productivity, protect the environment, and contribute to social governance.

### **Characteristics and Advantages of Cognitive Computing**

After tabular computing and programming computing, now the era of cognitive computing is coming. Generally speaking, cognitive computing has a wide range of applications, including participation, decision-making, discovery, and other aspects, centering the improvement of human's "cognitive" ability. Leslie G. Valiant from Harvard University thought that compared with other approaches, cognitive computing has three main characters: each act of memorization, learning, or recall is an algorithmically simple process executed on a network laden with information previously acquired; the system learns continuously as a background activity; in more complex cognitive processes such as analyzing complex scenes or reasoning, the internal computations have an important time domain and state information needs to be retained. The cognitive computing system has a strong comprehension ability. Through natural language comprehension technology and its superior ability to process structured and unstructured data, it can interact with users in various industries and then understand and respond to their problems. The cognitive computing system has an intelligent logical thinking ability. It can reveal insights, patterns, and relations through data and hypothesis and connect scattered pieces of knowledge for reasoning, analysis, comparison, induction, summary, demonstration, and obtainment of deep insights and evidence for decision-making. The cognitive computing system has excellent

learning ability. Through evidence-based learning ability, it can rapidly extract key information from big data and learn like a human. It can gain feedback through expert training and experience learning in the interaction to optimize models and make improvements. In addition, a cognitive computing system also has elaborated personalized analysis ability. Using text analysis and psycholinguistic models, it can conduct an in-depth analysis of massive social media data and business data, grasp users' personalities, and portray individuals in an all-around way. This system is not a simple collection of all these technologies. Instead, it integrates these technologies in an unprecedented way, profoundly changing the means and efficiency of solving business problems.

Compared with previous computing paradigms, cognitive computing has significant characters in adaptability, interaction, iteration, and context sensing. It can perceive the surrounding environment and context and make the corresponding self-adaptation. Cognitive computing requires dynamic programming and must understand, identify, and extract context elements, such as connotation, grammar, time, location, regulation, user profile, process, tasks, and targets. They might use multiple information sources, including structured and unstructured digital information, and sensorial inputs, such as vision, gesture, hearing, or information of the sensors. Cognitive computing also has the "memory" function and is able to conduct an iterative operation. The cognitive computing system must be able to remember previous interactive information to make rational reasoning and aid decision-making through the superposition of information and semantics. For instance, as a digital medical aid, when a user communicates with it about the personal situation of "chest distress or insomnia" at 1:00 a.m., the medical aid must "recognize" the current time and the user's situation, make comprehensive judgments combining user's previous conditions, and offer a reasonable suggestion.

At present, there are four key technologies of cognitive computing recognized by researchers: first, machine learning, natural language understanding, and human-computer interaction techniques which are on the top floor; second, big data technologies, including how to store, organize, manage, and analyze big data; third, computer architecture (the computing ability required by the cognitive system is far more than what we can provide today; therefore, how to realize the design of a data-centered system is also a challenge facing us today); fourth, at the bottom level breakthroughs of atomic and nanotechnologies which are required. There are two main tasks of cognitive computing: one is to study and simulate a human's understanding of the objective world through a computer; the other is to take the cognition and value discovery of information and data as the main goal. Compared with AI, the research of cognitive computing is deeper and more specific. "Deeper" means that it does not only study the simulation of human brain behavior but also focus on the understanding of the operation law of the objective world as well as the internal law and external expression of the data generated in the world; "more specific" means that it has more direct expressions in the applied business area, which can offer direct decision-making suggestions to corporate leaders.

## ❖ Why does Culture matter for today's global leaders

The entire purpose of leadership is to create a culture. In a large and well-established organization, it can be difficult for an outsider to implement a new culture. So, does leadership create a culture or does culture create leadership? The answer to both questions is yes.

### Ways Leadership Can Positively Affect Culture

People are inspired by vision. They want to follow a leader who shows concerns and values that are important to them. A positive leader will inspire 100% effort from everybody. Here are some signs of a good leader and how the leader affects the culture:

- **Visionaries and strategic thinkers:** A boss tells you what to do, while a leader inspires you to want to do it. Leaders who lay out a vision that people buy into and a strategy that they understand will create a culture of engagement. People know where the organization is headed, how it will get there and their role in helping achieve the vision.
- **Ethics that support values:** People look at what you do and not what you say. Values are words, ethics are actions. When leaders demonstrate values through their actions, they lead by example and create an ethical culture.
- **Empowerment:** There are three requirements for: responsibility, accountability and authority. Leaders who empower people to make decisions that affect their lives, give them the authority to act and make them take responsibility for consequences create leadership on all levels of the organization. Micromanaging means people are not entrusted to be leaders and very little gets done because all decisions need to be made by one person.

### Culture Affecting Leadership

"I have been here 25 years," said the director of a large municipality. "I have outlasted three city managers so far, and I will outlast this one." This is the attitude many leaders face, especially when they are brought in from outside organizations to run or manage large, well-established ones.

The negative cultures can especially undermine positive leadership as initiatives are actively undermined by managers who have a stake in the old culture or struggle to accept the changes inherent in the modern workplace. Whether it's through manipulation or complacency, negative cultures can create significant challenges for change. At the same time, positive leadership can overcome negative culture and turn the tide over time. A few encouraging results and positive experiences can go a long way.

Negative leadership, however, can have a fast, dramatic effect on a positive culture. WorldCom was a telecom leader and had a very innovative culture until Bernie Ebbers took over. While squeezing every cent he could from the environment and putting pressure on employees to work harder with less, he was pillaging the company. Turnover soared and, within a few years, WorldCom was bankrupt.

### Culture as a Function of Leadership

Companies reflect the ethics of the leaders who run them. We've seen in recent times the reaction employees and the public have to companies who fail to address their stance on

social issues, harassment, pay gaps and whose political leanings go against what employees view to be the common good.

As a result, leaders find themselves having to publicly make statements condemning systemic racism, political violence and other topics that aren't easy to talk about without offending someone or putting oneself at risk. But ultimately, the ethical stands a leader takes becomes a part of the organization's culture.

Bob Page felt like an outsider and had to hide his sexuality. When he built Replacements, Ltd., he ensured everyone it would be a place that accepted diversity—not just of lifestyle but of thought—and would invest in building their community. Anita Roddick founded The Body Shop to build an environmentally-friendly corporation, which reflected her commitment to environmental activism. Jim Goodnight's commitment to work-life balance is part of the culture at SAS, the largest privately-held company in the world. Jack Welch's commitment to being the best created an environment of excellence at General Electric. In each of these cases, the ethics of the leader became a central part of the culture.

### **The Obstacles to Culture Change**

The real obstacles to culture change are internal obstacles. False ego, fear, complacency and preconceived ideas create a negative environment. When change is introduced there is resistance, even when the change is positive. People learn different coping mechanisms to avoid the change, such as hiding behind procedures, "water cooler" talk or actively undermining the initiative.

The remote work landscape changes some of this as employee communications can be more easily monitored and there are fewer "water cooler" moments on offer to begin with. But negativity can be a bit like trying to contain water in an enclosed space. If there's a place for it to leak through, it likely will.

### **The concept of culture**

Culture carries has an endless number of meanings. It can be used to refer to sophistication/education ("to be very cultured"); to refer customs and rituals of a certain group, as usually done by anthropologists; it can also refer to the climate and practices of an organization ("the way things are done around here"), used by managers.

At the most general level, culture may refer simply to the lifestyle and behavior of a given group of people, so corporate culture is a term used to characterize how the managers and employees of particular companies tend to behave. The term is also used by HR managers and senior managers in their attempts to productively shape the kind of behavior they hope to have in their organization. In any case, it that may pass the idea that there is a "right kind of culture", wrongly implying that there are some cultures better than others.

We can say that any social group who has had a shared history has a shared culture. The strength of that culture will, of course, depend on the length of that group, personal boundaries between the members and the emotional intensity of that shared history. Moreover, it is safe to say that every culture has a set of visible manifestations (customs and rituals, behaviors or "the way things are done"), which carry some invisible and "under the surface" phenomena.

Edgar Schein (2004) pointed out 4 important characteristics of any culture: structural stability, the constancy of the culture, as it defines it; depth, the non-tangible and non-visible part of the culture, often unconscious; breadth, the influence it has over all aspects of how an organization deals with its primary tasks, environment and internal operations; patterning/integration, the way it “ties” together the various elements of the group and lies at a deeper level. Schein highlights that the only thing of real importance that leaders do is to create and manage culture, the unique talent of leaders is their ability to understand and work with culture, and it is an ultimate act of leadership to destroy culture when it is viewed as dysfunctional.

Hofstede (2017) defines organizational culture as the way in which members of an organization relate to each other, to their work and to the outside world that distinguishes them from other organizations. His research has shown that cultural differences between nations are especially found on the deepest level (i.e. values), while between organizations the differences are especially identified on the level of practices. Those are more tangible than values, which also allows for a more precise and specific definition. Deal and Kennedy (1982) also emphasize the more visible levels of cultures, such as rituals, legends and ceremonies, because they consider that these are factors that shape behavior. Nevertheless, it is the more “invisible” part that may be of more interest for those who intend to change/improve culture of a specific organization.

Culture, therefore, gives an organization a sense of identity and “belonging” which determines, through its norms, rituals, values, beliefs and language “the way things are done”. It carries what has been working for the organization, which, over time, become accepted “without questioning”, especially by older members. Those practices become norms over time, as those become expected behavior patterns within the organization, also turning into part of the culture.

### **Culture and Leadership as two side of the same coin**

Schein saw culture and leadership as two sides of the same coin, being one manipulated and influenced by the other: culture is dynamic as it starts with the leader, who transmits to the group his own beliefs and values, and later, as the group evolves, those values and assumptions brought initially are now taken for granted, as those are passed to later generations as “the right way of doing things”. At this point, culture defines leadership, as the later leaders have to act accordingly to the ideas set by the “original leader”. With time the environment changes and the group has to adapt, and the solutions and processes that worked previously no longer fit the issues that the group now faces. The leader comes into action once more: leadership is now the ability to step outside the culture that the founder established and to build up new ideas and processes to adapt to the new circumstances, creating new values and assumptions. This ability to perceive limitations of one’s own culture and to evolve the culture adaptively is the essence and ultimate challenge of leadership. (Schein, 2004) In other words, neither culture nor leadership can be explained by itself: on one hand, culture defines how the organization will define leadership; on the other hand, the unique talent of the leader is their ability to understand and work with the culture and it is the ultimate act of leadership to destroy culture when

it is viewed as dysfunctional. Schein also states that much of the confusion about what culture and leadership mean derives from a failure to consider this interaction between them and our failure to define what stage of an organization's life we are talking about. At the very foundation of an organization its leader has there the opportunity to impose his own beliefs, values and assumptions, starting the culture creation process: what is considered "leadership" then reflects what the founder imposed. On the other hand, when a new leader takes over an already existing organization, he realizes that the culture already existent in that organization will define and influence his leadership style, based on past history and the beliefs, values and assumptions of the leaders before. The leader's role in evolving the culture, when it does not fit, is complicated by the fact that as organizations grow and mature, they not only develop their own overall cultures, but they also differentiate themselves into many subcultures based on occupations, product lines, functions, geographies and hierarchies: leaders thus must not only understand the consequences of culture changing (uncertainty and anxiety) but, more importantly, align the various subcultures that have been created toward a common goal: the success of the organization.

## **B. Design Thinking**

- **What is Design Thinking?**

Design Thinking is a design methodology that provides a solution-based approach to solving problems. It's extremely useful in tackling complex problems that are ill-defined or unknown, by understanding the human needs involved, by re-framing the problem in human-centric ways, by creating many ideas in brainstorming sessions, and by adopting a hands-on approach in prototyping and testing. Understanding these five stages of Design Thinking will empower anyone to apply the Design Thinking methods in order to solve complex problems that occur around us — in our companies, in our countries, and even on the scale of our planet.

Design thinking originally came about as a way of teaching engineers how to approach problems creatively, like designers do. One of the first people to write about design thinking was John E. Arnold, professor of mechanical engineering at Stanford University. In 1959, he wrote "Creative Engineering," the text that established the four areas of design thinking. From there, design thinking began to evolve as a "way of thinking" in the fields of science and design engineering—as can be seen in Herbert A. Simon's book "The Sciences of the Artificial" and in Robert McKim's "Experiences in Visual Thinking".

With the rise of human-centered design in the 80s and the formation of design consultancy IDEO in the 90s, design thinking became increasingly popular. By the start of the 21st century, design thinking was making its way into the world of business. In 2005, Stanford University's d.school began teaching design thinking as an approach to technical and social innovation.

Design thinking is both an ideology and a process that seeks to solve complex problems in a user-centric way. It focuses on achieving practical results and solutions that are:

- **Technically feasible:** They can be developed into functional products or processes;
- **Economically viable:** The business can afford to implement them;
- **Desirable for the user:** They meet a real human need.

The **ideology behind design thinking** states that, in order to come up with innovative solutions, one must adopt a designer's mindset and approach the problem from the user's perspective. At the same time, design thinking is all about getting hands-on; the aim is to turn your ideas into tangible, testable products or processes as quickly as possible.

### **The Four Principles of Design Thinking**

- **The human rule:** No matter what the context, all design activity is social in nature, and any social innovation will bring us back to the "human-centric point of view".
- **The ambiguity rule:** Ambiguity is inevitable, and it cannot be removed or oversimplified. Experimenting at the limits of your knowledge and ability is crucial in being able to see things differently.
- **The redesign rule:** All design is redesign. While technology and social circumstances may change and evolve, basic human needs remain unchanged. We essentially only redesign the means of fulfilling these needs or reaching desired outcomes.
- **The tangibility rule:** Making ideas tangible in the form of prototypes enables designers to communicate them more effectively.

### **The Five Phases of Design Thinking**

Based on these four principles, the Design Thinking process can be broken down into five steps or phases, as per the aforementioned Hasso-Plattner-Institute of Design at Stanford (otherwise known as d.school): Empathize, Define, Ideate, Prototype and Test.

#### **Phase 1: Empathise**

**Empathy provides the critical starting point for Design Thinking.** The first stage of the process is spent getting to know the user and understanding their wants, needs and objectives. This means observing and engaging with people in order to understand them on a psychological and emotional level. During this phase, the designer seeks to set aside their assumptions and gather real insights about the user.

#### **Phase 2: Define**

The **second stage in the Design Thinking process** is dedicated to defining the problem. You'll gather all of your findings from the empathizing phase and start to make sense of them: what difficulties and barriers are your users coming up against? What patterns do you observe? What is the big user problem that your team needs to solve? By the end of the define phase, you will have a clear problem statement. The key here is to frame the problem in a user-centered way; rather than saying "We need to...", frame it in terms of your user.

### **Phase 3: Ideate**

With a solid understanding of your users and a clear problem statement in mind, it's time to start working on potential solutions. The third phase in the Design Thinking process is where the creativity happens, and it's crucial to point out that the ideation stage is a judgment-free zone! Designers will hold ideation sessions in order to come up with as many new angles and ideas as possible. There are many different types of ideation technique that designers might use, from brainstorming and mind mapping to body storming (role-play scenarios) and provocation — an extreme lateral-thinking technique that gets the designer to challenge established beliefs and explore new options and alternatives. Towards the end of the ideation phase, you'll narrow it down to a few ideas with which to move forward.

### **Phase 4: Prototype**

The fourth step in the Design Thinking process is all about experimentation and turning ideas into tangible products. A **prototype is basically a scaled-down version of the product** which incorporates the potential solutions identified in the previous stages. This step is key in putting each solution to the test and highlighting any constraints and flaws. Throughout the prototype stage, the proposed solutions may be accepted, improved, redesigned or rejected depending on how they fare in prototype form

### **Phase 5: Test**

After prototyping comes user testing, but it's important to note that this is rarely the end of the Design Thinking process. In reality, the results of the testing phase will often lead you back to a previous step, providing the insights you need to redefine the original problem statement or to come up with new ideas you hadn't thought of before.

### **Is Design Thinking a linear process?**

No! You might look at these clearly defined steps and see a very logical sequence with a set order. However, the Design Thinking process is not linear; it is flexible and fluid, looping back and around and in on itself! With each new discovery that a certain phase brings, you'll need to rethink and redefine what you've done before — you'll never be moving in a straight line!

### **What is the purpose of Design Thinking?**

There are many benefits of using a Design Thinking approach — be it in a business, educational, personal or social context.

First and foremost, Design Thinking fosters creativity and innovation. As human beings, we rely on the knowledge and experiences we have accumulated to inform our actions. We form patterns and habits that, while useful in certain situations, can limit our view of things when it comes to problem-solving. Rather than repeating the same tried-and-tested methods, Design Thinking encourages us to remove our blinkers and consider alternative solutions. The entire process lends itself to challenging assumptions and exploring new pathways and ideas.

Design Thinking is often cited as the healthy middle ground of problem-solving — it is not steeped wholly in emotion and intuition, nor does it rely solely on analytics, science and rationale; it uses a mixture of both.

Another great benefit of Design Thinking is that it puts humans first. By focusing so heavily on empathy, it encourages businesses and organizations to consider the real people who use their products and services — meaning they are much more likely to hit the mark when it comes to creating meaningful user experiences. For the user, this means better, more useful products that actually improve our lives. For businesses, this means happy customers and a healthier bottom line.

- **Key Elements of Design Thinking**

A few organizations have adapted the design thinking process, and the term has been part of a few board meetings. Design thinking is the basis of a few of the biggest innovations of our times. It is employed by top innovative companies like Apple, Bank of America, Nike, and more.

- 1. Discovery**

The beginning of a project, ‘Discovery-style’ exploratory research helps to ensure that products and features genuinely meet user needs.

Discovery helps us to focus on understanding the user need and context and to find deep insights rather than quick answers. Discovery sessions usually take the form of semi-structured interviews or ethnographic (observation) sessions and may be a combination of both. Digital tools can also help you with better access to real-life scenarios.

One of the most common mistakes that businesses make is to start to interpret findings during the Discovery phase, rather than waiting until all the sessions have been completed. Skipping ahead to the Interpretation phase too early tends to lead to assumptions and losing valuable insights.

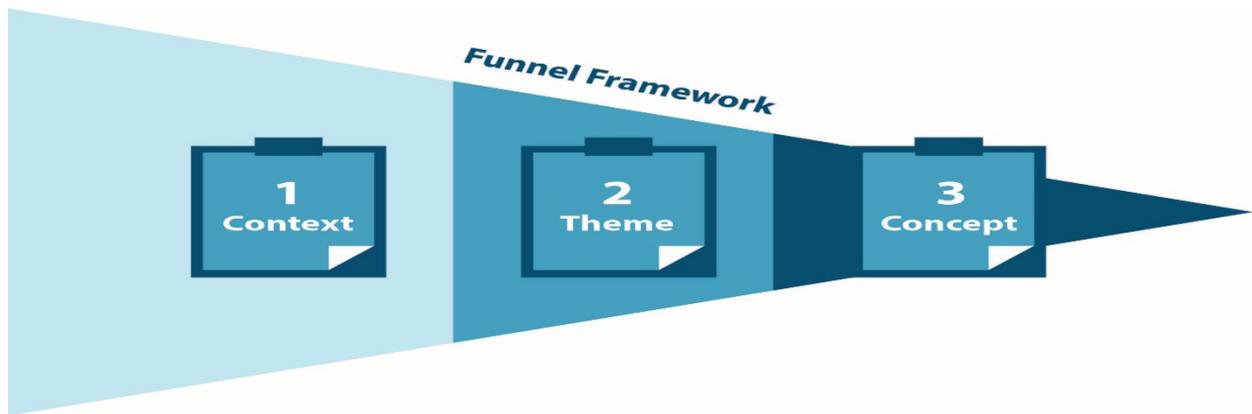
### **A framework for a semi-structured Discovery interview**

#### **Tunnel vision**

Often businesses introduce the product concept at the beginning of an interview which limits the participant’s imagination throughout the session - giving them tunnel vision.

#### **Funnel framework**

the simple ‘Funnel’ framework in the diagram below helps us to order questions to build a better picture of the user and context. This is much more valuable in the long run than a ‘yes/no’ answer on a single concept, as it means that your findings will still be relevant when concept ideas flex and change as they are developed.



A checklist for preparing a Discovery interview

Preparation:

- Select only people who represent the target market(s)
- Avoid those with previous knowledge / interest in the project / a personal bias
- Number of participants: 5+. Conversation depth is more important than high numbers
- Allow a 1 - 1.5 hour session length encourage in-depth conversation
- It may help to conduct the session in the context where the product is used.
- Write a discussion plan using the Funnel Framework:
  1. Context: User / Background / Interaction / Routine
  2. Theme: Priorities / Competitor products
  3. Concepts: Open ended questions. What if it.....?

During the Session:

- Really listen
- Ask for honest answers
- Make sure that you stay on theme, but allow the conversation to flow
- Don't give your own opinion or make assumptions
- If the response is a vague yes or no, ask for the specifics
- Ask Why? Why? and why?

After the Session:

- Record the conversation for reference

- Note down the key themes straight afterwards
- Avoid drawing conclusions before meeting all participants

## **2. Interpretation**

Interpretation plays a key role in a design process for two main reasons. Firstly, it provides for a designer a new understanding through a dialogue with the design situation. The level of comprehension increases through the chain of interpretations. Designers interpret in order to extend their understandings and to improve their dialogue with the design situation.

Interpretations give rise to understandings which necessitate new interpretations towards new understandings and so on.

Secondly, interpretation bridges the gap between design actions and thoughts. Especially for novice designers, there is a hole between acts and thoughts. They are not generally aware of what/how they act while designing. Their tacit knowledge and pre-understandings often remain covered. For instance, even though they discover relations between design elements, frame these relations by rules and apply these rules with variations, all of these may proceed in an implicit way. Therefore, interpretation becomes crucial for both extending understanding level in a design situation, and objectifying and influencing design acts. The ideas above find their parallel in the way contemporary hermeneutics incorporates experience and thought.

Hermeneutics discusses the ways we evolve our understanding with the interplay of acting as a part of the world and of objectifying and influencing it. Language, in this regard, rather than an existing system of signs, serves as the mediation between the evolving understanding and static forms around us (Brown, 2002). Winograd and Flores (1986) introduce the view of language in hermeneutics by claiming “...how practice shapes our language and language in turn generates the space of possibilities for action.” In this sense, language in action holds significance for not only the dissolution of the meaning of an action, but also the generation of new actions.

## **3. Ideation**

When it comes to product design, we often hear the word “roadmap.” Many product teams believe that a roadmap is something that can be created before starting a product development and this roadmap prevents them from making mistakes (a.k.a. incorrect product decisions). In reality, it’s almost impossible to create a product roadmap right at the beginning of a project. Building a solid roadmap might take months or years (if we talk about sophisticated digital products). But the good news is that proper planning makes this process more efficient. The goal of designers is to set a path – form a product strategy and establish the right direction for a product. Part of it can be done during the discovery phase and the other part is during the ideation phase.

During the ideation phase, it’s vital to have strong brainstorming sessions. Follow these tips on how to brainstorm more efficiently:

- Ask the most creative people who are involved in a project to join the session. The session itself should take place in a physical space, not digital space,

if possible. Physical spaces make it easier to share emotions. Each session participant will not only be able to share their thoughts but also see the physical reaction of other people.

- Dream big. When it comes to ideas, you should not limit yourself. Relax and imagine what a perfect product would look like. If you work on a cutting-edge product, think about some device you saw in sci-fi films.
- Structure your ideas. Without structuring the ideas you collect, it's fairly easy to lose yourself in that stream. We use boards with stickers. Each idea is placed on a sticker and belongs to one group. Our team uses the following groups: Emotional Needs, Practical, Safety, Security, Entertainment, Media, Navigation, etc. The color of a sticker helps us to group the ideas.
- Consider the technical feasibility. Not all ideas can be implemented using modern technologies. It's essential to discuss your ideas with an engineering team.

#### 4. Experimentation

In a trial-and-error world, the winners are the ones who can validate their ideas the fastest. And whenever we are faced with great uncertainty, as we most often are when creating innovation, trial-and-error experiments are the best we have.

We use these experiments to mitigate risk and to increase our knowledge by testing our hypotheses, validating which are true and which are false, adjusting course when needed in order to reach customer/solution fit and later product/market fit. This process of systematically falsifying our key assumption is the very essence of innovation.

Some people call this process “fail fast”, at IDEO they call it Design Thinking, Eric Ries calls it “Lean Startup”, Dave Thomas and other developers call it “Agile”, and at Google they call it “Prototyping” or “Design Sprint”.

Whatever you call it, the point is that experimentation is *the* common denominator across all popular innovation methodologies, and as such the only principle that really matters.

In many organizations, ideas get vetted, buttoned-up, socialized, and analyzed before they ever get in front of someone with the authority to say “let's give it a try.” With each stakeholder conversation the idea gets shaped and compounded as people contribute warnings and wishes. By the time an idea reaches an executive audience, the stakes have been raised to the point that the presenter is under more scrutiny than the idea.

Consider three qualities of a good experiment:

- Is it **low risk**– can it be conducted with a safe audience at a minimal cost? A good gauge is would it cost less than \$100
- Is it **quick and easy**– is it easy to build and run? A good gauge is can it be set up and run in under 1 hr.
- Is it **generative**– will the experiment help you learn and grow the idea you are testing? A good gauge is it will generate at least two good learnings to help you adapt your idea.

#### 5. Evolution

Interestingly, Design Thinking focuses on the most important view from which problem-solving should be approached; the user's. When problem-solving is approached from a user's point of view, it allows for uncovering novel insights into the product's user-flow thereby finding the right solution to the right problem.

For better-informed Product Management decisions, Design Thinking allows for empathy, **research**, inspiration, iteration, and reduced ambiguity. At the end of the day, design thinking makes it easier to find the perfect point of intersection between desirability, feasibility, and viability. It allows for asking the right questions that will help propel creativity.

The Design Thinking process is quite similar to the Agile methodology of Product Management, as a matter of fact, Design Thinking helps to materialize the otherwise abstract concept by allowing ease of iteration and faster user-testing processes. Implementing design thinking in product management makes it easy to consider expedient user experience factors. Top on the list includes:

1. **'Predicting' your users' thoughts:** Steve Krug, author of *Don't make me think*, suggests fully understanding users' needs and subsequent workflow, so much so that you are able to correctly predict their next move (*no, you don't have to be a mind reader to achieve this*). This is a basic fundamental that connects directly between design thinking and product management.

"We should listen to our users' needs to the point that we know and tell them what they should be thinking." –Steve Krug

2. **Make your users think less:** Hick's law is the 4<sup>th</sup> law of User Experience, it suggests that your design should minimize how much your users have to think when interacting with your product.

*"The time it takes to make a decision increases with the number and complexity of choices."*

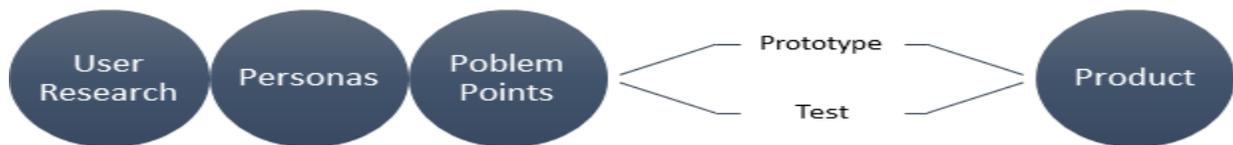
As a Product Manager, you have probably heard a product designer talk about Cognitive Load, well, this is what they are referring to. It basically means you don't need to overwhelm the user with so many choices at a time.

Implementing Design Thinking in **Product Management** usually takes a 6-step process as highlighted below, with each step having clear underlying values.

1. **User Research** is perhaps the most important step in the Design Thinking for Product Management process as it helps fully understand user views of problem points. Asking the right questions makes user research extremely valuable.
2. **Personas** are carefully generated users that match user needs. They are researched-informed meaning findings from the User research process helps to build personas.

3. **Problem Points** are the issues associated with the products from each persona's point of view. It helps to identify relevant problems that users are encountering and how they attempt to solve it. Another important observation at this point is to note if users have found an alternative to solving these problems and if so, as a Product Manager, you should identify why your users use the alternative and propose something better.
4. **Prototype and Testing**, these 2 steps go hand-in-hand, as it is necessary to test the solutions you come up with and see how it fairs. If it does decently well against predetermined metrics and has a better value proposition over the alternative(s), you have an excellent product! If not, it's probably a good time to reiterate.
5. **Finally Product**, this is considered the minimum *SALEABLE* product that you are able to hand off. It has to be saleable because it makes the most difference as far as customer and product experience is concerned.

Design has been gaining a lot of attention recently and deservedly so. As such, it is no longer the sole responsibility of design teams, **Product managers should put design (and its thinking)** at the forefront of product strategy as it is a valuable spice for building excellent product experiences that users will enjoy.



### How to transform challenges into Opportunities?

Challenges has become a part of life, no matter your tribes, look or believe life will definitely throw challenges at you and these is one of the factor that cannot be avoided in life. Facing your challenges and coming out of it stronger than before is what makes you victorious.

Know that you are not the first that will be facing challenges in life and you won't be the last, the richest people in the world have also had to face their own challenges but what made them a successful people today is their ability to never give up, they manage to turn their challenges into opportunity for their growth. You can also do the same; you can as well turn every bit of your life challenges in a great opportunity for growth.

#### Here are few ways:

**Honesty:** Being honest with yourself is one of the main things; you will have to tackle first, if you are ready to turn your challenges into great opportunities. Ask yourself what is that you truly

want out of this , know what you are feeling, don't try to make yourself feel better when in actual fact you are battling with sadness, identify your feelings. Embrace the sad feelings and by doing this you will be able to raise the strength to overcome it, doing this will make it easier for you to transform your challenges to something more fruitful. Be true to yourself.

**Perspective:** Maybe it is time to change your perspective, if what you have been doing over and over again is not working, why not look into another angle of life. In most cases, we might feel that we need to do some actual thing because they seem right to us. But when you see that you have tried again and the results are not fruitful, then why not change your perspective towards your idea and look into another realm of life.

**Openness:** Being open and ready to move on is one of the best ways to transform your challenges to opportunities for growth. When we approach life ready, be open and willing to move forward but when we refuse to identify our challenges, there might be no tendency of trying to move forward and we might get stuck at that particular point. When we give ourselves the permission to open up to the possibility of unsticking our self, then the world would react by opening up to us.

**Curiosity:** Be ready to transform, be curious about the things. The new idea and the implementation of idea might introduce you to know your world. When you embrace challenges and enjoy every experience, it gives you the motivation that, you can easily overcome it and even gain new idea on new opportunities will serve as growth in your life.

**Determination:** The determination to attain success is all that matter, when you have a high determination in life, then nothing can drag you down.

The story of the famous Lele Pons, a famous actor, model, singer and Instagram star, she spoke about how she was one of the top Viner before the app was close down, she use to post comedy videos and her fans were one the highest on the vine app but when the app was close down she felt like giving up but she didn't, she managed to join Instagram and today she is one the famous and successful Instagram star.

### **How to develop Human centric solutions to develop social good?**

Most simply, human-centred design is a mind-set and creative process that puts people first. It focuses on making the people, who will be using the product or service as a central part of the process. It involves brainstorming and prototyping in a way that is flexible and readily incorporates feedback.

Human-Centred Design is part of a larger practice called design thinking. IDEO explains that design thinking, and with it, human-centred design, came from the inquiry of, "what can the field of design do for the world?" It was based on a challenge to move away from solving "simple problems" and towards solving "wicked problems" or problems that defy easy solutions, ones that are "complex, open-minded, and ambiguous."

Design thinking encourages asking big questions, about how to build a humane world, how to change big systems and institutions while still supporting individuals, how to adjust to our rapidly changing world, and more.

One may traditionally think of “designers” as creative who built art or innovative products: graphic designers, architects, engineers, etc. However, design thinking and its human-centred process has allowed for non-profits, governments, social-enterprises and more to think about how they can create products and services that people actually want to use, and not what other people think, they might want or need.

Human-centred designs are more sustainable because they focus on what actually works and what humans want to and are willing to use. It represents a good business model because it allows for a higher return on investment and can help cut down extra customer service costs that come with goods or services that are confusing or hard to use.

However, business models aside, human-centred design also has great potential for social good. In a humanitarian context, so many non-profits and individuals looking to help can often end up doing more harm than good, when they do not centre the individuals they claim to be working for. These types of saviour complexes can at best lead to a product or service that individuals don't want and at worst be offensive and damaging to the community ecosystem.

Human-centred design trusts that people actually know what's best for them and honour the creativity inside each of us, instead of making assumptions about their wants or needs.

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