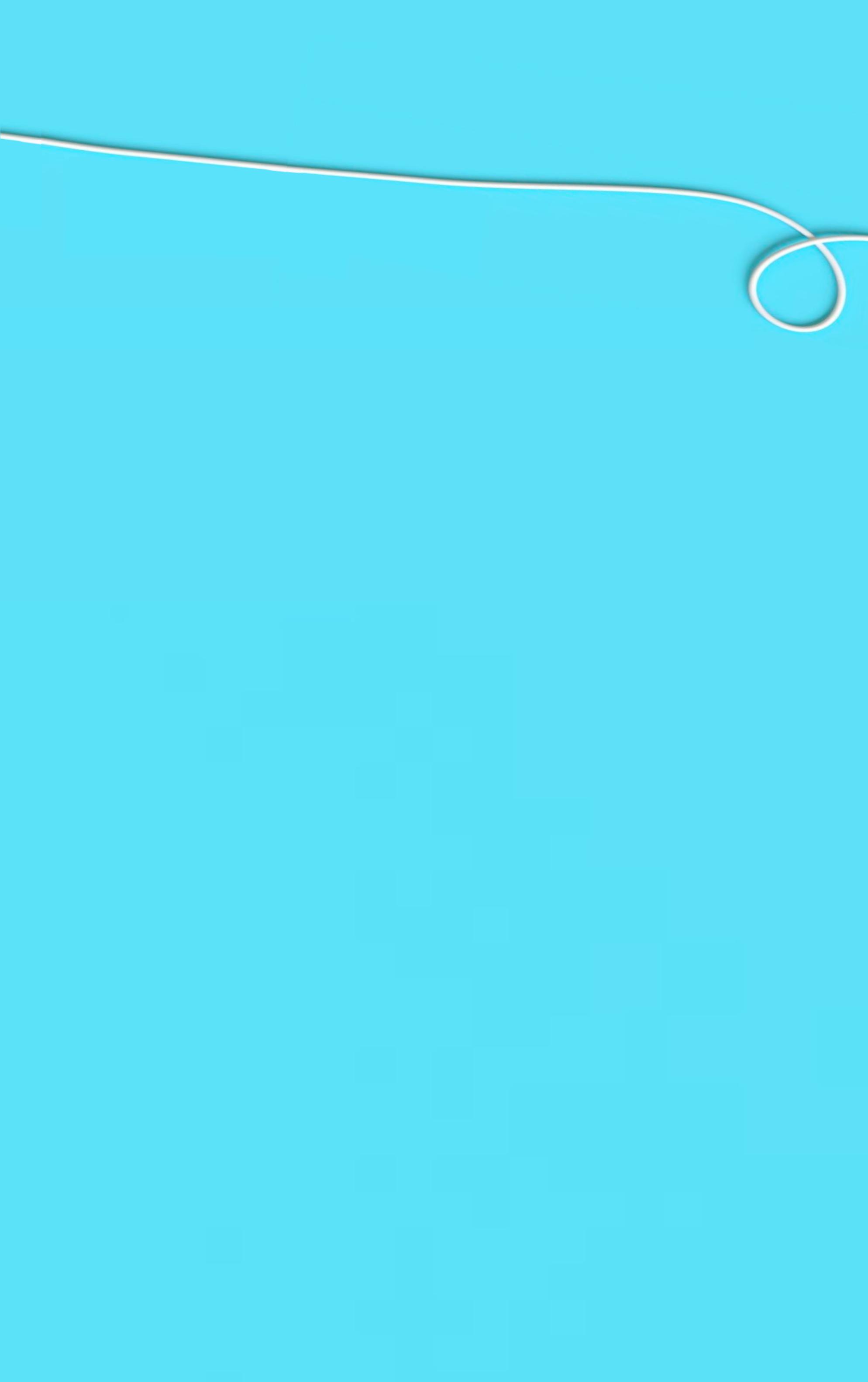




CRACKING CREATIVITY

DECODING THE
MOST VALUABLE
SKILL IN THE WORLD



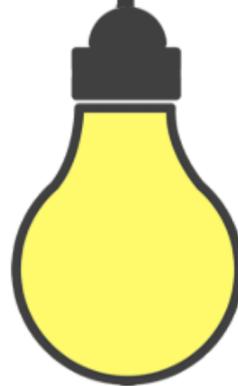


by

Pernilla Hamrén

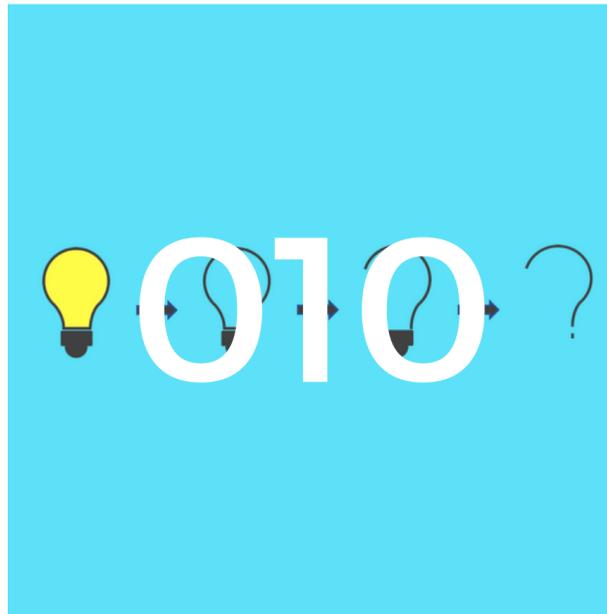
(2021)

Contents



006	Introduction
010	What is creativity?
011	Definition
012	The evolution of creativity
014	How does it work?
016	Creativity: Brain physiology
018	Creative Thinking
021	Case Study 1
022	Case Study 2
023	Case Study 3
024	The Future of Creativity
025	Market Analysis
028	Participant Interviews
030	Expert Interviews
037	Research Conclusion
039	Prototyping
040	Design Criteria
041	Design Principles
042	The Northern Star
044	Measuring Creativity
047	Prototype 1
052	Prototype 2
055	Measuring Training Effectiveness
056	Business Model
057	Design: Concept & Name
058	Design: Logo
060	Introducing Ahaa!

Design Phases



DISCOVER

Research



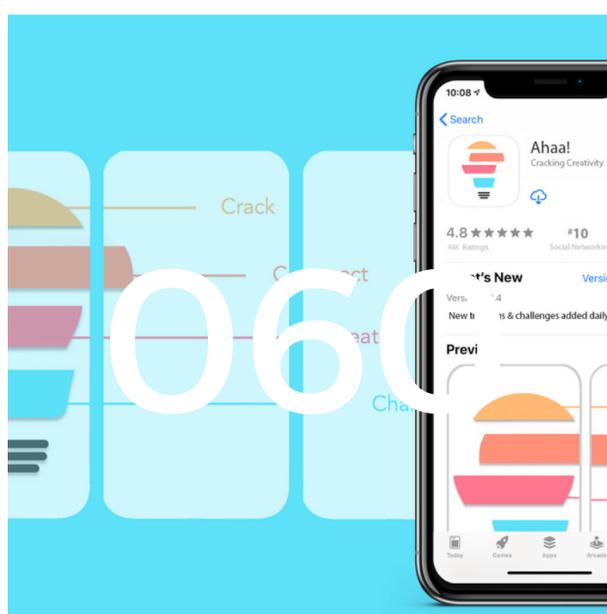
DEFINE

Market Analysis - who is addressing this issue?
Problem Statement



DEVELOP

Prototyping



DELIVER

Introducing Aha! A creativity training platform designed for professional applicability

*Would you
describe
yourself as
creative?*

I had always presumed that there was only one feasible answer to this question since I consider creativity as an inherent part of our thinking process; no matter who you are or what your job is...



Engineer



Broker



Consultant



Teacher



Coach



Consultant



Manager



Entrepreneur



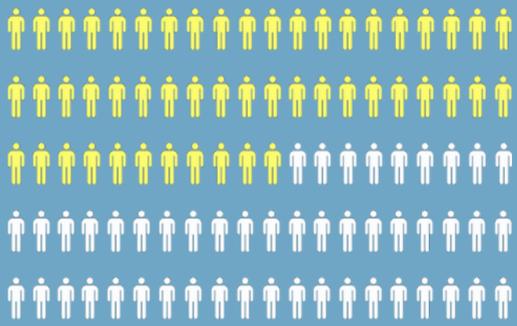
Assistant



Business owner

but to my surprise, **ONLY 3** out of 10 professionals answered yes when I asked them.

So, it got me thinking, ***was it just them?***



59%

*think that they are **not creative***

According to a study from Adobe, only 41% of people describe themselves as being creative, even within the creative industries.¹ This means that 59% (more than half of the population) think that they are not creative.

1. Adobe (2016) "State of Create" Survey, Adobe.com

*Yet, **creativity** was the most demanded skill in 2020*

& will continue to rank top for the next 5 years.²

This didn't add up to me, so I spent a year researching creativity to find out...

What is creativity?

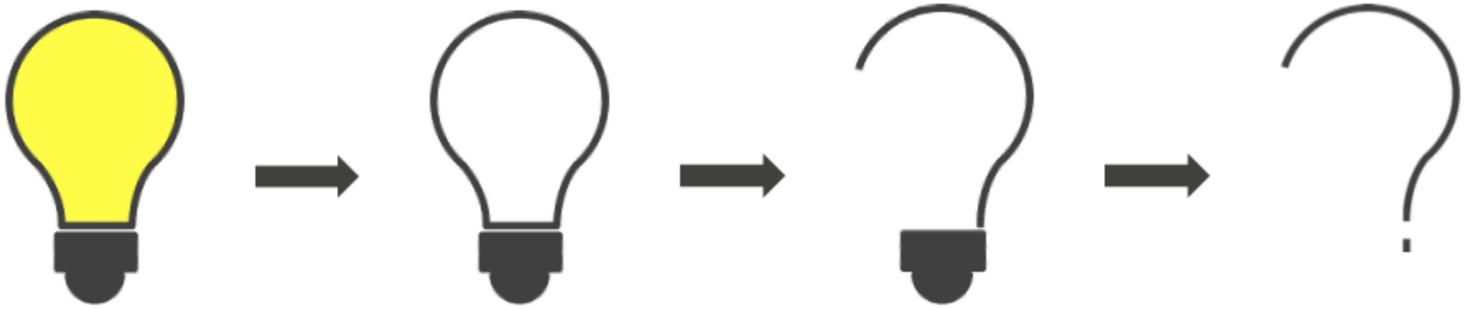
Why do people think that they don't have it?

Who is addressing the market gap?

How can we make it accessible to everyone?



Creativity is the world's most in-demand skill

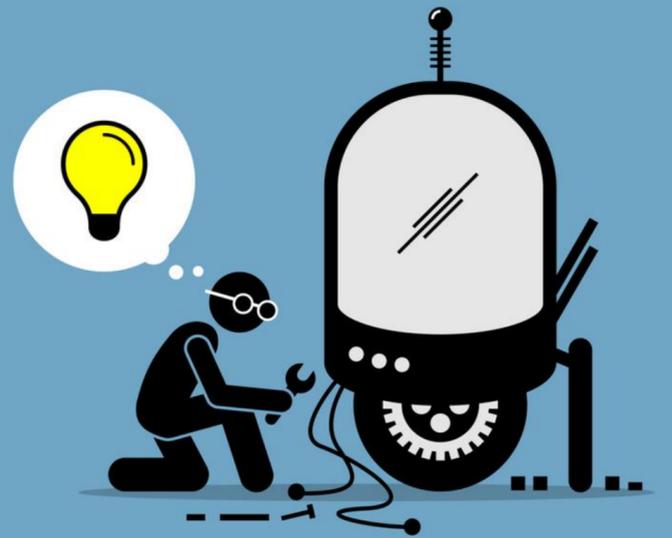


What is creativity?

Definition

Big C

The American Psychological Association defines and categorizes creativity into big C and little c.³ Big C refers to creative greats and could include developing new theories on the origin of life or inventing a new world changing technology or writing an opera.



little c

Little c, which is too often overlooked, refers to the everyday creativity; doing something you haven't done before, such as trying a new recipe. Both types require similar mastery of cognitive skills that lead to those aha moments of sudden insights, but personality differences lead individuals to particular pursuits.

The evolution of creativity

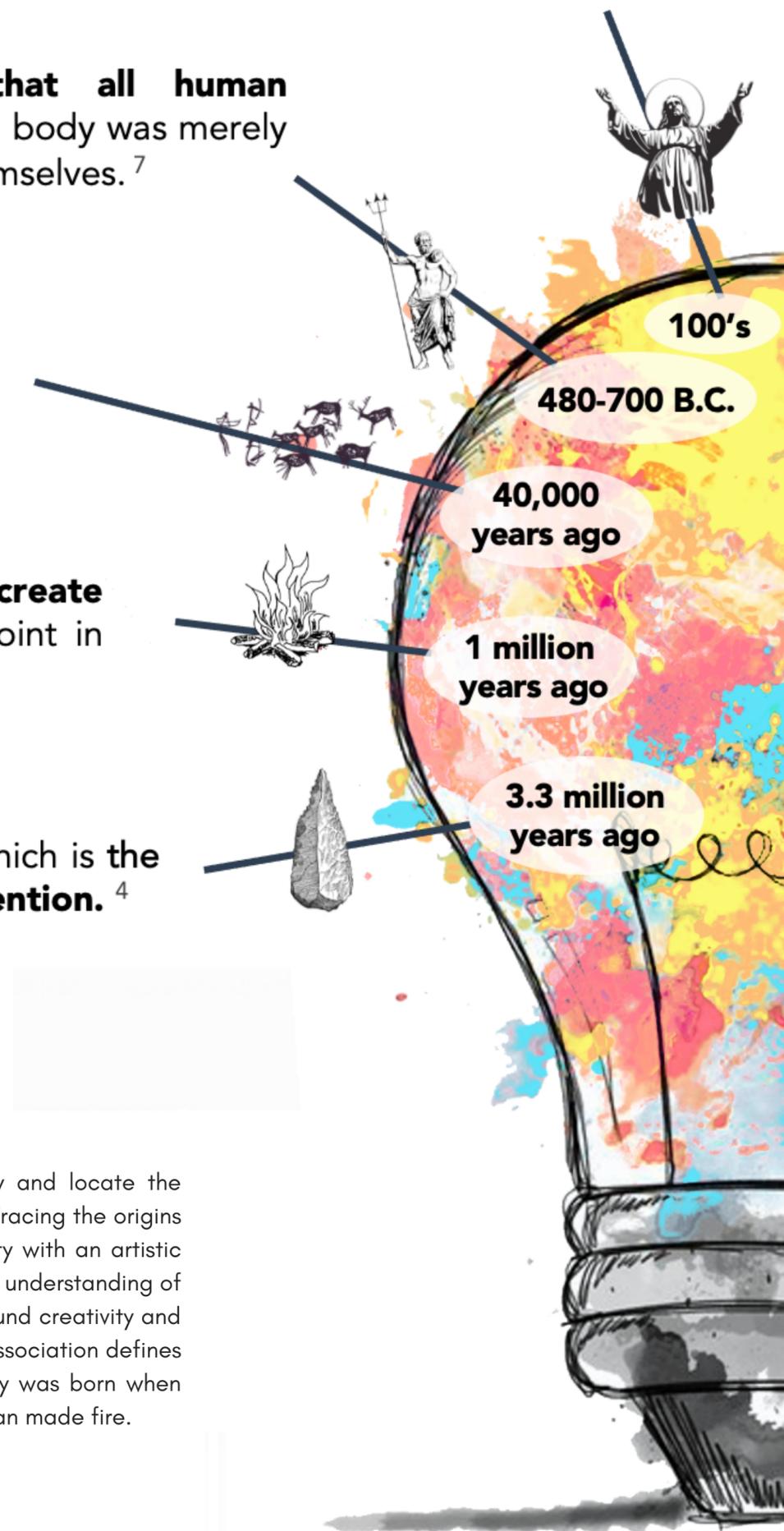
The word creatio was coined from the expression creatio ex nihilo which designated **God's act of creating from nothing** and did not apply to human functions.⁸

Ancient Greeks believed that all human creation was divine; the human body was merely a vessel for Gods to express themselves.⁷

Yet, most researchers points to the Upper Paleolithic as the beginning of human creativity, when Homo Sapiens started adorning cave walls images of Ice Age Animals.⁶

First evidence of humans' ability to create and control fire which is a turning point in the technological evolution.⁵

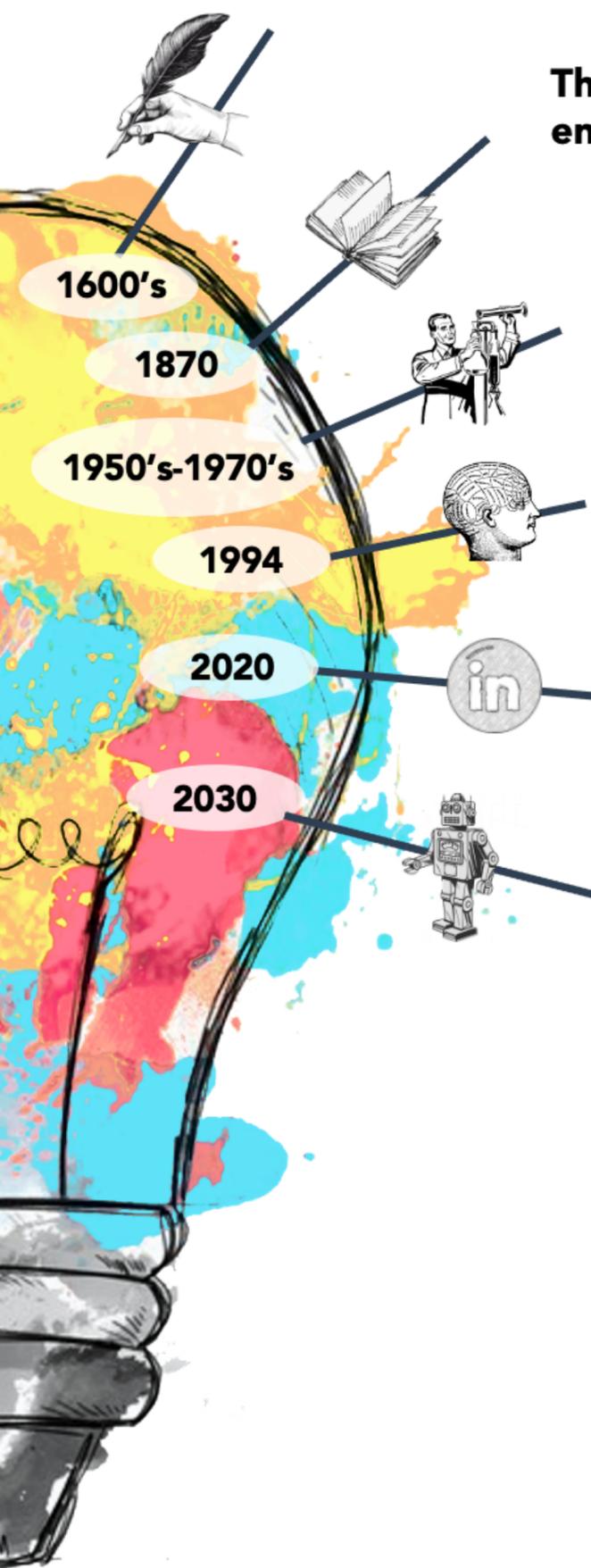
First evidence of stone tools which is the first known technological invention.⁴



When we trace the roots of creativity, we can clearly identify and locate the reasons for how creativity came to be viewed as an artistic skill. Tracing the origins of creativity help us understand why so many associate creativity with an artistic skill that you either have or don't since that has been the universal understanding of creativity up to 1994. No wonder there are prevailing stigmas around creativity and its meaning and purpose. However, the American Psychological Association defines creativity today as innovation, so one could argue that creativity was born when humans first invented stone tools or when they created the first man made fire.

4. Harmand, S., Lewis, J., Feibel, C. *et al.* (2015). 3.3-million-year-old stone tools from Lomekwi 3, West Turkana, Kenya. *Nature* 521, 310-315
5. Berna, F., Goldberg, P., Horwitz, L.K., Brink J, Holt S, Bamford M, Chazan M. (2012) Microstratigraphic evidence of in situ fire in the Acheulean strata of Wonderwerk Cave, Northern Cape province, South Africa. *Proc Natl Acad Sci USA*.
6. Pringle, Heather. (2013). The Story of Sreation. *Scientific American* 308(3):36-43
7. Wilson, O. Edward. (2017) *The Origins of Creativity*. New York: Liveright
8. Hubler, James Noel, (1995) *Creatio ex Nihilo: Matter, Creation, and the Body in Classical and Christian Philosophy Through Aquinas*. *Publicly Accessible Penn Dissertations*. 980.

The word creation was mentioned for the first time to describe that a poet creates from nothing **"in a manner of God"**.⁹



The word creativity was first entered into the dictionary.¹⁰

Scientists first begin to research creativity.¹¹

For the first time, **science proves that everyone possess creativity as a biological cognitive function.**¹²

Creativity is the world's most in-demand skill, yet 59% of the population feel like they lack it.¹³

1/5 of jobs will be replaced by AI, except those that rely on core human traits such as **creativity.**¹⁴

Now, there is a paradigm of the scientific world that recognizes the progressive and innovative character of the physical and cognitive processes of creativity. In this view, creativity is no longer seen as an extraordinary phenomenon isolated in a few gifted individuals. Instead, today's research demonstrates that we all have the cognitive abilities to be creative, and everybody uses creative thinking on a daily basis, personally and professionally. Studies prove that the more you practice it, the better you become, which increases your productivity and time efficient.

9. Tatkiewicz W. (1980) Creativity: History of the Concept. In: A History of Six Ideas. Melbourne International.

10. Random House Webster's Unabridged Dictionary (2nd ed.). (2001). New York, N.Y.: Random House, Inc.

11. Runco, A. Mark . (2004) Creativity. *Annual Review of Psychology*, 55:1, 657-687

12. Isaksen SG, Murdock MC, Firestien R, Treffinger DJ, eds. (1994). *Understanding and Recognizing Creativity*. Norwood, NJ: Ablex

13. LinkedIn, Learning Report, (2020)

14. Wardle, Duncan, (2021) "So, You Think You're Not Creative?" Harvard Business Review, Mar 29



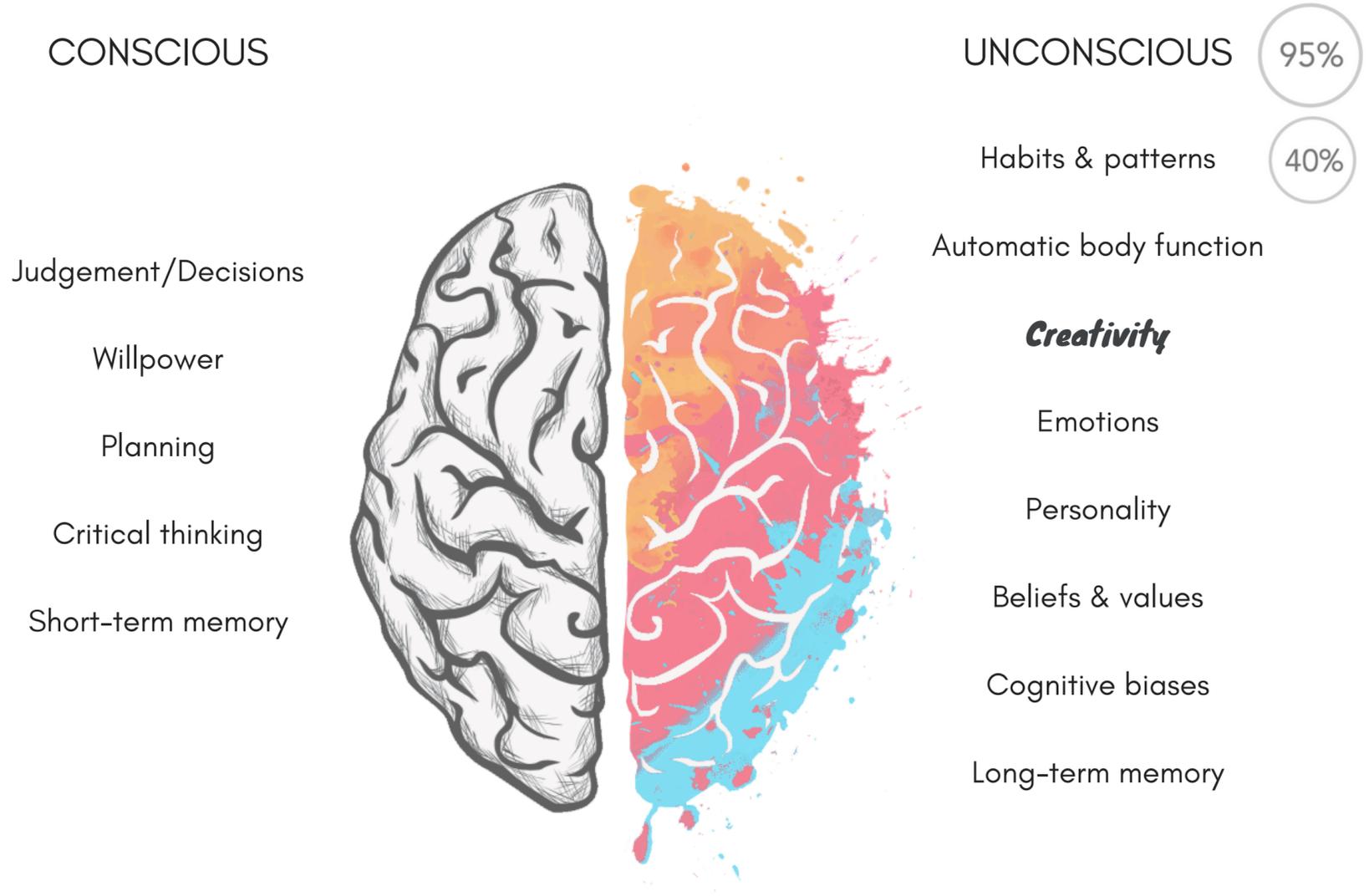


How does it work?

Creativity: Brain physiology

"As strange as it sounds, creativity can become a habit. Making it one helps you become more productive."

- Jonathan Plucker, creativity researcher & PhD professor at Indiana University



Creativity is a basic function of the unconscious human brain.¹⁵ Creative thinking is predominantly a function of the right hemisphere. In contrast to the conscious and logical processing of the left hemisphere, the right brain appears to specialize in emotional and symbolic processes necessary for creativity.¹⁵ Creative thinking also includes other basic cognitive processes including perception, attention, memory, and storage of information. Studies have shown that cooperation between the right and left brain is necessary for creative thinking.¹⁵

Creative cognition may reflect attentional selections when the individual benefits from the recognition of experiences and associations that can be used for ideation.¹⁶ Since creativity is in our unconscious part of the brain, habits and patterns may work against creative insights by leading to routine and assumption. Creative cognition, however, can be tactical. Therefore, we can exert a degree of our control on how we think and direct our cognition to the generation of new ideas, insights and solutions.¹⁶

Some creative achievements depend on expertise and require years of practice to fully master the knowledge required in a specific field.¹⁶ This means that we need to practice our cognitive abilities in order to become better at producing creativity. Several studies traces the origins of creative thought to experiences that generalized across domains of knowledge.¹⁷

The more remote a transferred skill of thought was, the more unusual solution or insight was produced. Therefore, structured training is essential to improve thought transferability across fields and expertise. When skills are applied in a new domain of knowledge, creative thinking is elevated. Methods that encourages new ways of making associations and uses examples from various contexts is an important part of the creative cognition.¹⁷

15. Noppe, L.D. (2011). Unconscious. Editor(s): Mark A. Runco, Steven R. Pritzker, Encyclopedia of Creativity (Second Edition), Academic Press.
 16. Runco, M.A. (2001) Creativity and Cognition. International Encyclopedia of the Social & Behavioral Sciences. Editor(s): Neil J. Smelser, Paul B. Baltes. Pergamon, pages 2892-2895.
 17. Halpern, D.F. (2001). Critical Thinking, Cognitive Psychology of, Editor(s): Neil Smelser, Paul B. Baltes. International Encyclopedia of the Social & Behavioral Sciences. Pergamon. pages 2990-2994.

*We all **have** it*



*We all **use** it*

Creative Thinking



Yemen 1500's

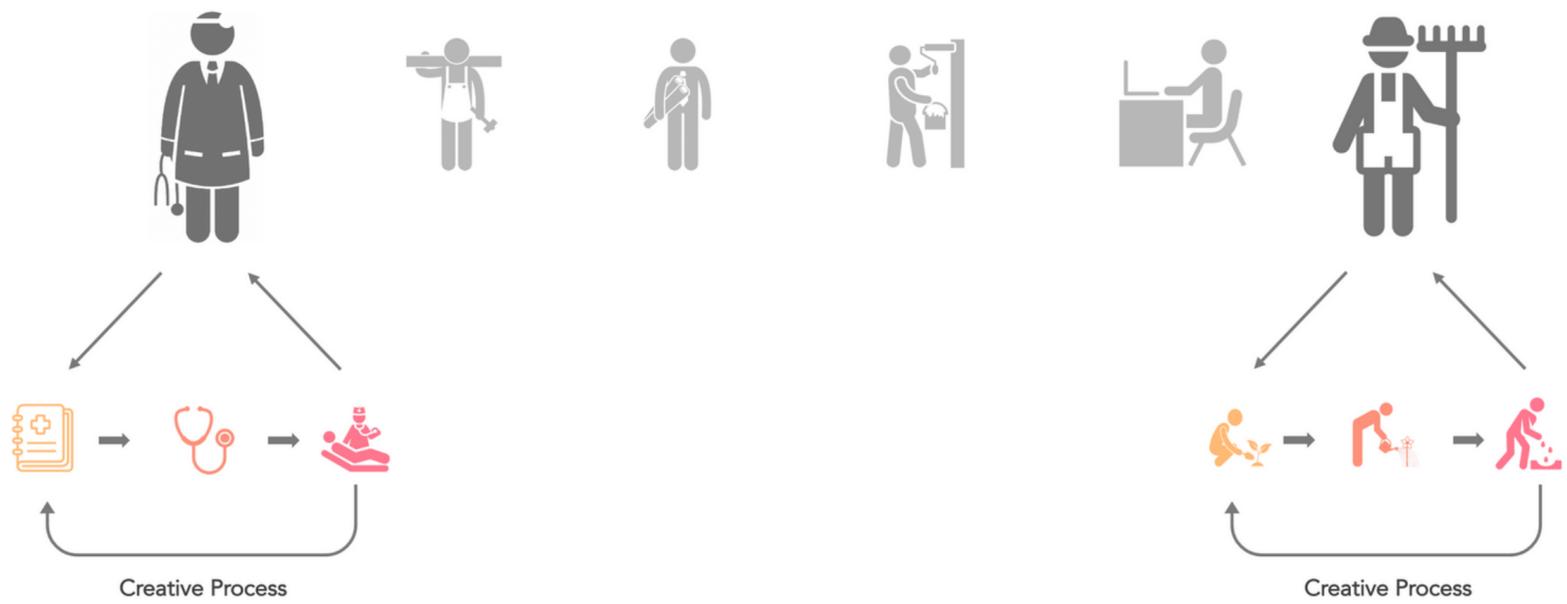


Starbucks 2021

Creative thinking may simply mean the realization of doing things differently, instead of how it has been done before.¹⁸ Let's step back and have a look around. The chair you are sitting in, the table you have in front of you, the lamp that lights up the space around you, and the computer that you are staring into. All these objects has at one point been new and innovative and is part of our evolution as a human beings. This doesn't just apply to products and services but to all thinking processes that has advanced our way of living, some more significant than others. Just think of the how the first coffee beans, found in Yemen in the 1500's, has now evolved into soy Frappuccino,

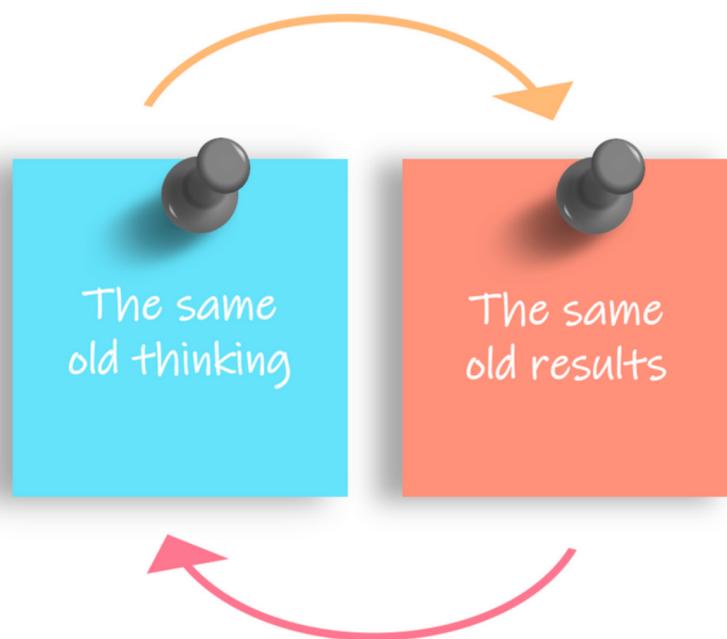
available at nearly every corner around the world. At every step of human evolution, there is a system of thinking processes that requires creative input and decision making in order to progress. Creativity doesn't just apply to the creative gods or inventors of the past; it applies to the everyday cognitive thinking processes that we all have. Indeed, practitioners of disciplines across the arts and sciences, including physics and mathematics, have reported that all creative output begins with individual creative thinking.¹⁵ No matter what you work with, you use creativity since it is a natural part of progression.

18. Bernstein, R. Robert. Bernstein, R. Michele. (2003). Editor(s): Larisa V. Shavinina, The International Handbook on Innovation .Pergamon, 377- 387
19. Scripp, Larry, Subotnik, F. Rena. (2003). Editor(s): Larisa V. Shavinina, The International Handbook on Innovation .Pergamon, 485-512.



Doctors wouldn't necessarily describe themselves creative, but if you think about it, they use creative thinking processes every time they try to diagnose a patient since no person is the same. Furthermore, doctors continuously go back to the drawing board in order to find new and better ways of treating their patients.

The same creative thinking applies to a gardener. A gardener needs to be flexible to meet the varying environmental conditions that affects a specific garden plot and the plants within that space. They apply their cumulated knowledge and experience in order to be able to create a garden plot suitable to for the specific location and needs.



"Brainstorming is a **GIANT** waste of time"

A 2020 report by WeTransfer based on a survey of 20,000 creatives from 197 countries suggests that professionals find that brainstorming is largely unhelpful for solving a creative challenge.²⁰ Instead, they conclude that if you "Send people off with the time and space to think properly, the quality of their ideas will probably improve,". The report highlights the need for individual preparation and introspection in order to generate ideas and produce creative output.



"It's a new age... 'Creativity' is the word in balancing your personal and work life"

- Robert Epstein, Senior Research Psychologist at AIBRT



Case study 1

Dr. Robert Epstein is a Senior Research Psychologist at the American Institute for Behavioral Research and Technology and his research focuses on creativity and innovation. Epstein's work has been featured in Time Magazine, the New York Times, Discover, as well as on national and international radio and television.

In his study, published by the Creativity Research Journal, the abstract value of creativity is translated into numbers.²¹ For a period of eight months, 74 city employees participated in creativity training comprising of games and exercises reinforcing four guiding principles: capture new ideas, seek out challenging tasks, broaden your knowledge and surround yourself with interesting things and people, designed by Epstein himself. It was found that as a result of attending workshop trainings over a period of eight months, there was a 55 percent increase in the rate of new idea generation among the employees. This idea generation led to a \$600,000 increase in revenue and with savings of \$3.5 million due to innovative cost reductions.

Epstein argues that the majority of the working population is expected to deliver an endless list of task and responsibilities in both their work and personal life. As a result, stress is bound to arise which in addition to time constraints are major creativity killers. However, creativity serves as a break from monotonous loops and Epstein concludes that by exercising creativity, an individual can integrate his/her work life and personal life and create a healthy and efficient way of living life.



Creativity training is efficient & profitable for businesses and individuals

Case study 2



“The creative economy is the most modern phase of economic development.”

- Hans d'Orville, Special Advisor to the Director-General of UNESCO

Dr. Hans d'Orville is a Special Advisor to the Director-General of UNESCO & Former Vice-Chair of UN Development Group. In his paper “The Relationship between Sustainability and Creativity” d'Orville highlights the importance of creativity to achieve a sustainable future.²² d'Orville argues that creativity is necessary to strive for a green economy in order to come up with solutions that addresses the challenging fates of this planet. It is an endeavor that will require concerted efforts of innovations across the board and creativity in all fields. d'Orville states that creativity drives society toward sustainability through its capacity for imagining & visioning. Innovation not only include ingenuity and imagination, but even more so new processes, new technologies, and new ways of using existing technology and argues that design is a key dimension of creativity. d'Orville claims that creative intelligence has become a new form of cultural literacy which harnesses the power to create, connect and inspire and is the heart of sustainability. Henceforth, creativity and sustainable will be influenced by the dominant drivers and enablers of our age. d'Orville concludes his paper by referring to the new initiative by the International Center for Creativity and Sustainable Development in Beijing, which is a new

international think tank for creativity that seeks to stimulate, mobilize and exchange creative solutions, tools and approaches in all walks of life. With support from UNESCO, the center aims to become the world's first center for creativity and sustainable development, built to gather talents around the world to promote cultural exchanges and cooperation to support Chinese enterprises, technology and culture.



Creativity is necessary for sustainability & requires innovations in all fields

22. N. d'Orville, Hans. (2019). The Relationship between Sustainability and Creativity. Cadmus Journal, 4 (1),65-73

"Products and services resulting from the creative behavior of ordinary individuals may become the most important source of creative breakthroughs..."



Case study 3

"Ordinary" people are the most important source for creative breakthroughs

Teresa Amabile, a Baker Foundation Professor and the Edsel Bryant Ford Professor of Business Administration at Harvard Business School, has studied workplace creativity for more than 40 years. In her paper "In Pursuit of Everyday Creativity" Amabile illuminates the importance of everyday creativity from the ordinary.²³ Amabile argues that for too long, research has been paying attention to the creativity of the well-known geniuses, but few have focused on the opportunities and benefits associated with the behavior and psychological experience of everyday creativity and innovation of ordinary people. She affirms that evidence is mounting that such individuals could be responsible for the next important changes in the challenges ahead.

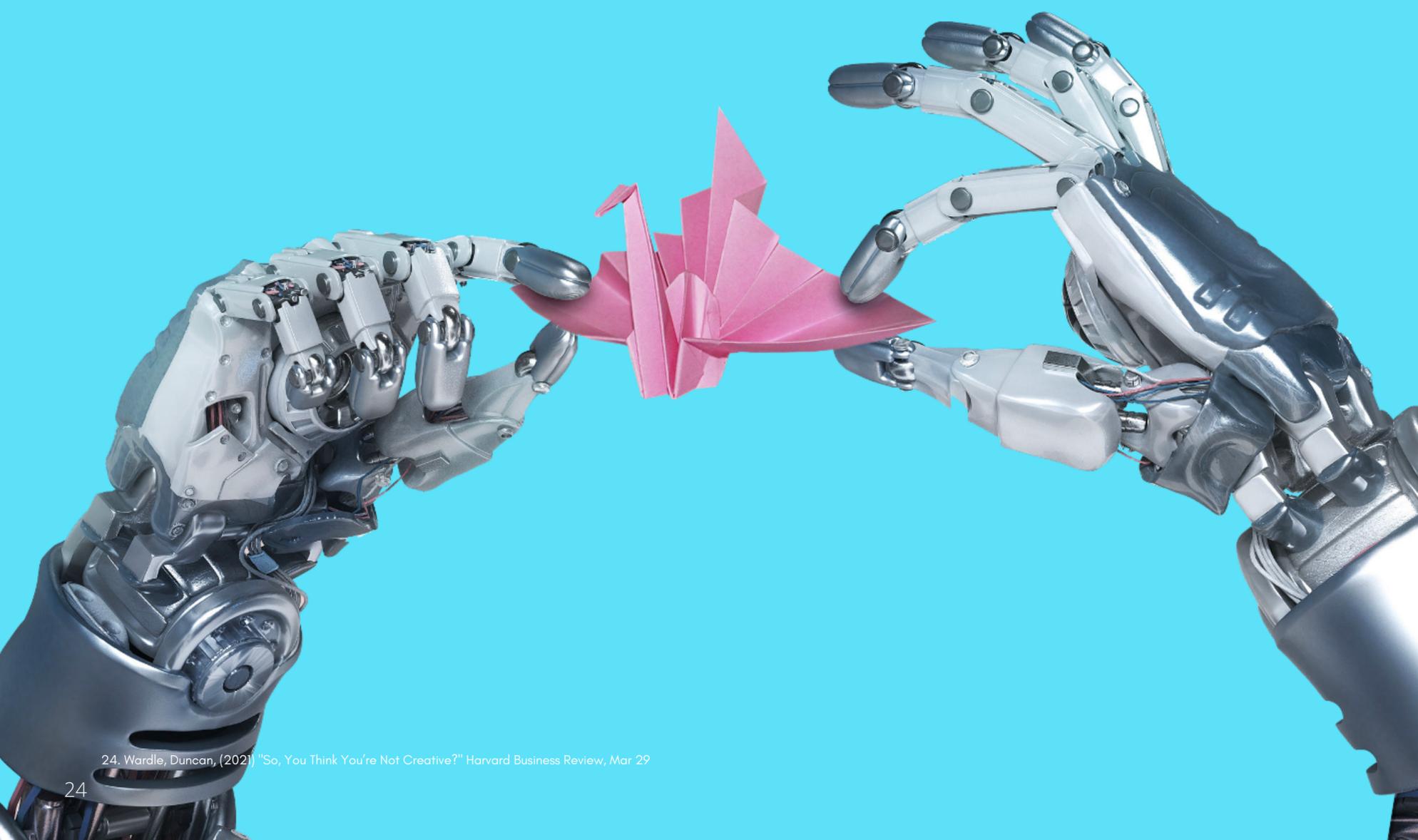
In fact, she argues that the internet-enabled sharing economy makes it easier than ever to share new ideas with companies, society and each other. Which is why, large firms routinely host open innovation contests to tap into the creative minds of the ordinary people, in order to solve problems, big and small. She concludes that the world needs to pay more attention to the creative processes of everyday people and suggests, and that in our sharing economy, big ideas come from crowdsources masses.

... those breakthroughs will be made by collaborative groups of 'ordinary people' by open innovation contests & open innovation processes."

- Teresa Amabile, Professor at Harvard Business School

By 2030,

**1/5 jobs will be replaced by AI,²⁴
except those that rely on core human
traits, such as creativity and imagination**



24. Wardle, Duncan, (2021) "So, You Think You're Not Creative?" Harvard Business Review, Mar 29

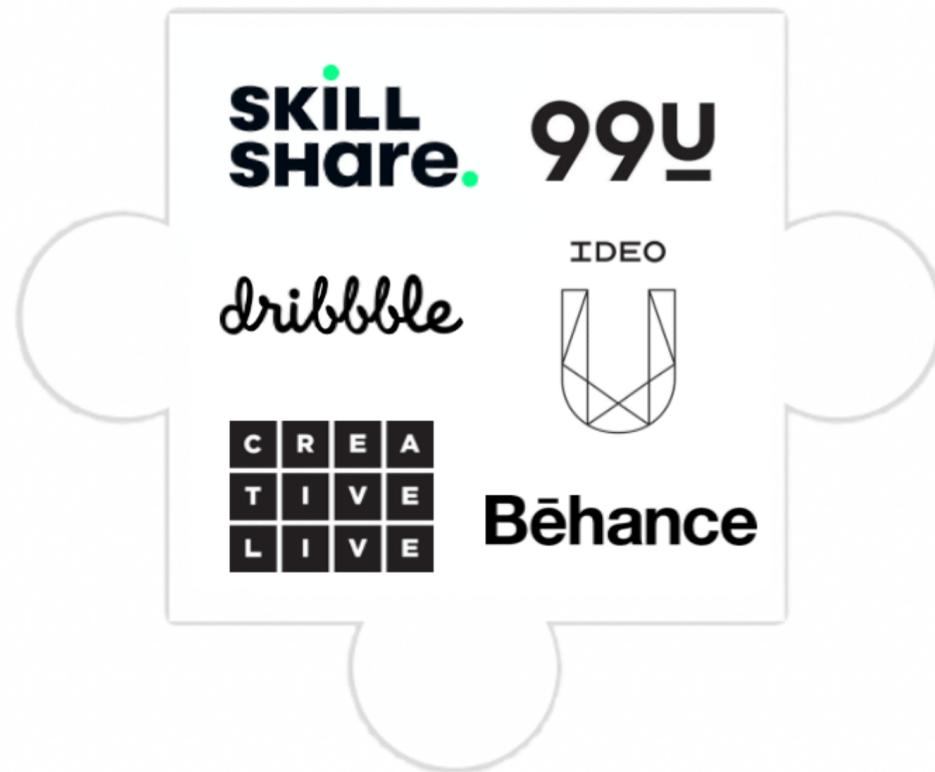


***Who is
addressing
this issue?***

Market Analysis

As it turns out, there aren't that many players in the field of creativity. Skill Share is arguable the most well-known player and it is an online learning platform for creative people and "fellow-creatives" on topics including illustration, design, photography, video and more. Creative Live is another online platform with the tag line "Answer your creative calling" and invites "everyday artists" to a place where they can master their craft or try something new from a range of online classes. Dribbble claims to be the leading destination to find & showcase creative work, a place where designers can gain inspiration and connect with other designers.

Behance is an online portfolio for creatives to showcase their work and connect with other artistic creatives. These creative platforms have one thing in common; they only cater to and target the artistic creative people in creative industries. But as we know, not that many consider themselves to be creative to begin with. More importantly, creativity is not just an artistic skill for the deemed creatives as we have been led to believe. It is an important cognitive function that we all have, and we all use.



X Only for "creative" people in "creative" industries

X Doesn't offer diverse training or tools

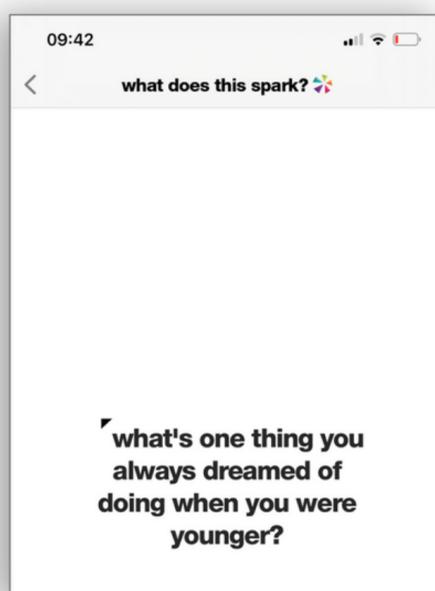
X No introspective aid or progress tracking



Competitor Analysis: Brainsparker

The closest competition I could come within the field of everyday creativity for ordinary people, is the company Brainsparker. They don't necessarily target the everyday person, but at least they do not limit their audience by referring to individuals as artistic or aiming at creatives from creative industries alone. Albeit their services first and foremost appeal to professionals. Brainsparker are members of the Forbes Coaches Council, FB Start, and Virgin Accelerator, and support the United Nations SDG.. So, what does Brainsparker offer? It has an online academy with training courses on creativity, creative thinking, innovation and leadership and offer a 52-week gym membership where once every four weeks a new mindset, tool or technique is unlocked to the members.

In addition to their online academy, the Brainsparker app, which currently ranks as the No.1 app for creativity, generated random prompts of inspirational quotes & questions from a 250 card deck that users can click through, including prompts like "What's been inspiring me lately is...", "The best way out is always through." and "What if you could wave a magic wand?."



PARTICIPANT INTERVIEWS



As I conducted interviews with participants, three clear pain points were revealed; time, applicability and ability. The biggest pain point that most of my participants voiced was that they don't feel like they have time to be creative. When I asked Rasmus Carlström, an Accountant and Business owner why he wouldn't describe himself as creative, he simply stated that he doesn't have the time to be creative. Emelie Ek, a middle school teacher, stated that she doesn't find joy or patience in the "creative process" of reaching a final output and said that she just wants the whole process to be quick. Therefore, they are put off by the idea of having to spend up to a year of weekly trainings in order to improve their skillset from a company like Brainsparker. In a time pressured society, all my interviewees said that they want products and services that are fast.

"I **don't have time** to be creative"



Rasmus Carlström, 25
Accountant at NewSec & Business owner

"I **don't want to spend time on nonsense**"



Hanna Lundqvist, 26
Business owner & Consultant at Aspia

The little time that people do have, they don't want to spend on things that don't directly apply to them. Hanna Lundqvist, a Business owner and Consultant at Aspia stated that she doesn't want to spend time on "nonsense" since she wants to be effective and productive. She believes that creativity takes up too much of her time and wants to get things done quickly. Consequently, she would not be interested in a service like Brainsparker which provides her with random prompts and exercises, since she thinks that this would only be a waste of her time. Hanna stressed the fact that she is only interested in things that can help her to work faster. However, as Dr. Epstein's research demonstrates; practicing creativity can actually increase your productivity and help you work and live more efficiently

When I asked Caroline Mockett who is an Operations Manager at Business Sweden, why she wouldn't describe herself as creative she said that she has never felt like she was any good at it. Any of her previous attempts on creative projects had, according to her, all been "failures". She wasn't the only one who thought that they were not good at being creative. Most of the participants had the view of creativity as something extraordinary, as if it was a talent you were born with. Everyone who said that they wouldn't describe themselves as creative said that they didn't think they possessed "the" creative skills. If people don't know that they have creativity, or that they can practice it, how are they ever going to feel like they are good at it? It seems as if the historical implications and misperceptions of what creativity is still persist in modern society, despite the "new" mounting evidences from scientific research.

"I have **never been good at creative things**"



Caroline Mockett, 31
Operations Manager at Business Sweden



AN INTERVIEW WITH JOSEFINE ROSÉN

Josefine Rosén is a consultant for public and private clients within the field of preparedness which includes risk, crisis and continuity management with public and private clients. Since Josefine specializes in strategy and problem solving in crisis I decided to interview her to pick her brain on creativity and I have summarized some of our main discussions.

Kicking off the interview, I was startled by Josefine's answer when she too said that she would not describe herself as creative. She continued by adding that she doesn't think that she has ever been a creative person. When I then asked her to define the word creativity she said that it means to be inventive and come up with new ideas and thoughts. Josefine was quick to add;

*"Now that I think about it, why I said no is probably **because I associate it with artistic creativity like painting and writing music.** But, it can also be a way of thinking or a thought process... **maybe I am a little creative after all.**"*

When I asked her if creativity is important for problem solving, she said;

"Yes, creativity helps to view problems from different perspectives and come up with different possible solutions before making a final decision."

As I went on asking about her work, she started to refer to creativity as being a part of her job since it requires her to produce new ideas and solutions. When I asked Josefine how she has been able to plan or make strategic decisions in an uncertain setting such as ongoing COVID-19 pandemic she

said;

"It's about always having the customers end goals as your focus, but it's the same way no matter what situation that you are in." On the topic of why companies hire consultants rather than doing it in-house, she stated;

"Consultants are viewed as selective measures and don't require full time employment. For example, instead of an electricity network company having a full-time employer working on continuity management, it's more effective to outsource someone who has expertise in continuity management alone. The client is an expert at what they are doing, in this case they are experts at the electricity network, which maybe we aren't. In this way you can get the best of both worlds, by applying the theory and practice of risk management onto the electricity network industry and integrating the different expertise, rather than recruiting it in-house."

When I asked Josefine if she and her company provides expertise and practices towards a long-term implementation, she explained that the goal is to support the company by providing a framework that can be implemented and managed by the clients on their own. To which my follow up question was: if companies and individuals could eventually learn to do it themselves, then what makes consultants irreplaceable?

"It may sound simple, but I think that in many cases it's about a lack of time, since in-house staff are already busy with what they were hired to do, and then we can provide

them with knowledge and expertise, but that **there isn't time for the clients to fully take on the tasks of development and innovation by themselves.** It is in our best interest to continue to develop our knowledge and skill sets so that we can constantly offer new expertise to our clients. If we were to pass on all of our knowledge without learning anything new, then we wouldn't have anything to sell. That's why we feel that we are at the forefront of learning new methods, trends and staying up to date with current events in the world."

So, I asked Josefine how she manages to stay up to date and continuously develop her knowledge and methods, to which she responded;

"We have partly groups of in-house experts that are responsible for method developments and updating the competences that we offer, and partly in-house workshops and training hosted by our senior consultants. In addition, we send staff members to extern educational workshops and training as well."

On the topic of recruitments and the recruiting process, she said that their recruitment process involves different steps of interviews combined with problem solving exercises and personality tests. She continues by adding;

"One of the tests measures your ability to solve problems creatively."

During our conversation, I asked Josefine to try and recall the last time she had an Aha moment herself, a moment where

he had reached that stage of finding a solution to a difficult problem. After some careful thinking she said;

“I am working on a project right now, that for a very long time felt fuzzy and vague and I couldn’t seem to put my finger on what I was supposed to do. But over time, I reached a stage where **I felt like I have control over the situation because I dedicated time to wrap my head around the problem statement whilst remaining focused on the initial goals which made me feel better about where to go next.**”

I asked Josefine to recount what that process looked like and she described it accordingly;

“I played it by ear and **learned by trying it out in different ways.** First, I tried to depict solutions in different ways to myself, and then showed those to other people and got their feedback, and then I went back to depicting new solutions based on the feedback that I got, and then I presented it again to people around me, **its a loop of going back and forth.**”



I then went on to ask Josefine whether she or her company uses any products or services to support their creative

thinking, or problem solving processes, or whether she knows or has ever heard of anything like it, to which I got a definite no. When I asked her if she would have been interested in supportive tools to aid her creative thinking and problem solving processes, she stated;

“Yeah.. I think so, or YEAH, I mean anything that can help you get new perspectives or ideas or anything that allows you to try new ways of doing something is helpful. **It’s very easy to get stuck in patterns and return to habitual thinking and routines because it is convenient.**”



AN INTERVIEW WITH AKBAR IQBALIS

Akbar Iqbalis a consultant at Monitor, Deloitte, and specializes in organic growth strategy. Akbar works to help companies think through how to evolve their businesses and move forward. Hence, I wanted to get his perspective on creative thinking and training, current market trends and the future of creativity, and I have summarized our main discussion topics.

As always, I started the interview by asking Akbar the one and only question of whether he would describe himself as creative to which he answered yes and he described creativity as being able to think outside of the box and bring a novel approach, or new ways. When I asked him which the creative people are, he said;

"I always look at the artists of the world, who actually

create physical things like a painter that creates a physical representation of an idea that they have in mind. I guess that comes from a place of envy, I don't think that I am creative in that sense."

Akbar lists music and illustration as two other examples, and goes on to state that;

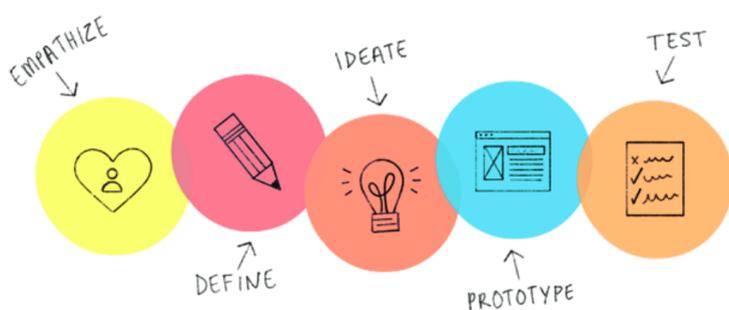
*"I always attribute the label of creativity to those types of creatives, but then again, **as we go into a digital world, there's more of a need for those types of creatives in the business environment to force the businesspeople to become more creative.** I think that you are starting to see groups of people - who you initially wouldn't have thought of as creative - are being forced to become creative, and so the definition is being almost reframed."*

To the question on whether he thinks that creativity can be

learned, Akbar says;

*“Absolutely, just from my personal experience, **I think I have become more creative as I have worked with creative people and come across creative concepts, such as different methodologies. There are certain tools and certain types of people that can facilitate the learning of creativity.**”*

I then asked whether he could give some examples of the methodologies to which he responded;



*“Design thinking is a tool for people who do not see themselves as creative since it unlocks creativity just by methods and the way that you facilitate it. It can also help you think more creatively because **it helps you break a massive problem down into manageable parts which gives your brain space to think about the elements of a challenge or a solution, instead of thinking of a solution in one go.**”*

On the topic of the evolution of creativity within business Akbar stated;

“What we are seeing now is that it is okay to be creative and

fail, whereas twenty, thirty years ago, failure wasn't acceptable. When you have the permission to fail, you can be more creative. The new companies have a culture where failures are permitted. Out of ten ideas you go with the one that succeeds, rather than putting millions behind one idea, one product which is how it was previously done. What we are starting to see with digital companies is that they are challenging the traditional approach to product development and the evolution of their company culture.” Akbar uses Spotify as an example of a company that has a modularized business model rather than a big lumbering company who fails to pivot because of an embedded culture across the organization, and argues that;

“A company that has separate teams and are given the freedom to experiment, will also find new ways of working.”

On the topic of what consultancies bring to the market and why consultants are irreplaceable, Akbar says;

*“The reason that companies come to consultants is on the basis of the way that consultants work and the environments that they work in. **Consultants go from one industry to another, so they work with different types of challenges with different types of clients. So by nature, a consultant have to be extremely flexible. What consultants bring to companies is the flexibility in mindset, delivery and approach. You need a load of skillsets for a big transformation that probably doesn't exist in the business. Consultants bring those skills into the existing business and train the people on the new ways of working.**”*

When I asked him what skillsets and expertise it is that consultants bring to their clients, he answered;

“Consultants have the benefits of having a presence in multiple industries, so they can aggregate all of the forces at work in the world and synthesize and provide guidance.”

As an example, Akbar says that the rise of Netflix and other on-demand services has led customers to expect the same quality and speed of service in other industries;

*“If I have ordered an Uber in one minute, similarly, why do I have to come into the hospital to get my prescription? Why can’t I order it like I do with food on Uber eats? **In this digital world, lines are blurring between industries, and thus expectations and customer behaviors are blurring. As consultants we have the benefit of being able to spot those trends and crossing those industry lines. Companies don’t have the luxury of doing that because they are locked into a specific industry with a specific consumer base.**”*

When I asked Akbar on where he goes for additional resources in order to stay up to date and on how he manages to develop his own skillsets he answered;

“There are so many reports and research institutions who gather data and you can see their discussions on a topic, and then you supplement that with your own experience. As a consultant you work with loads of different industries and clients and what you hopefully take away from those experiences is nuggets of insight and information that helps you build a holistic picture around trends. It gives us the

opportunity to get into the different mindsets of the people working in the different industries and also allows us to apply the lenses to see that industry for what it is and what other trends that work better.”

On the topic of how and where to recruit creative talent he said;

“The traditional approach has changed. You used to source from top universities like Harvard, Oxford, you name it. But I think that is changing now. Consultancies are starting to look in new places for intelligence. For example, Ernest and Young were the first to change their entry criteria from hiring students with an upper second class degree and downgrading it to second class degree because they saw that through the process of experimentation, the people that got that one level lower, were more creative.”

When I asked him how he defines intelligence he stated;

“Intelligence for me is creativity paired with flexibility. Students from these leading universities are very book smart, they are very well read. But in the real world it is not as black and white which is why you need to be able to take your knowledge and apply it to the context in which you are in and more often than not, the thing that separates the intelligent people to me, is the flexibility you bring. **It’s taking all your knowledge and experience and being able to apply that to where you are now.** It takes a great deal of creativity and flexibility because you need to be able to take that information and process it quickly in order to apply it and push the boundaries.”

When I asked him why he thinks that so many individuals do not describe themselves as creative, Akbar said;

*“One of the reasons why people don’t think that they are creative is because they don’t have confidence. Taking people through design processes and putting mentoring in place could be a solution. **We are all creative and have to be creative on a daily basis, even if it is minute decisions. Thinking about that you will cook for dinner has a level of creativity because you need to think about what ingredients you are going to put into the meal.**”*

On the topic of the future of creativity and what role it will play in businesses he responded;

*“There is an interesting approach that human capital consultancies take. **Companies are starting to think about what qualities that makes humans successful in a specific role and what challenges this person going to work with on a day to day basis. What situations are this person going to find itself in? How do we bring the most level of creativity out of them? This also helps to define creativity. With the right mentoring and the right tools, everyone can be creative and bring the level of confidence that they require to unleash that creativity.**”*

We end our long interview on the notion of the importance of creativity in a digital world and Akbar sums up by saying;

“Take into consideration that most education systems in the world doesn’t prioritize creativity and because of that, children loose their creative abilites. The absence of

*creativity at school can kill creativity to the point that when you come into the professional world there is no room for creativity. You are not allowed to have your own opinion. Also, in a digital world, we have stopped needing to be creative, because you don’t have to do things yourself. Instead of having to cook, you order food with a click of a button. With increasing use of data science driven machines, algorithms are going to think for us. **Creativity is under threat.**”*

Research Conclusion

After months of researching creativity, I realized that there is an evident gap between demand and supply of creativity as a skill due to the prevailing stigmas on who and what is deemed creative, dating back to the beginning of human evolution. There seems to be a misperception of what defines creativity and how it can be used for public good. We have become so accustomed to speaking of artistic creativity and linking artists with creators, to such a degree that they seem inseparable. Yet, creativity is the most demanded skill, have been present since the beginning of time, and is a crucial component for the future of our planet. **How are people going to improve their creative abilities if they don't even know that they have it? And why is there no one out there telling them that they do?**

Creativity has evolved from being an act of god, to a stroke of genius, and has now found its way into the homes and lives of ordinary people. **Not only are you seen as capable of being creative, but the world is expecting you to become good at it.** Furthermore, the handful of companies within the space of creativity only reenforce the stigmas on creativity by catering to artistic individuals alone. The only company who does not limit their targeted audience to creative people from creative industries, still doesn't address the needs and wants of the everyday person, nor the collective goals of this planet.

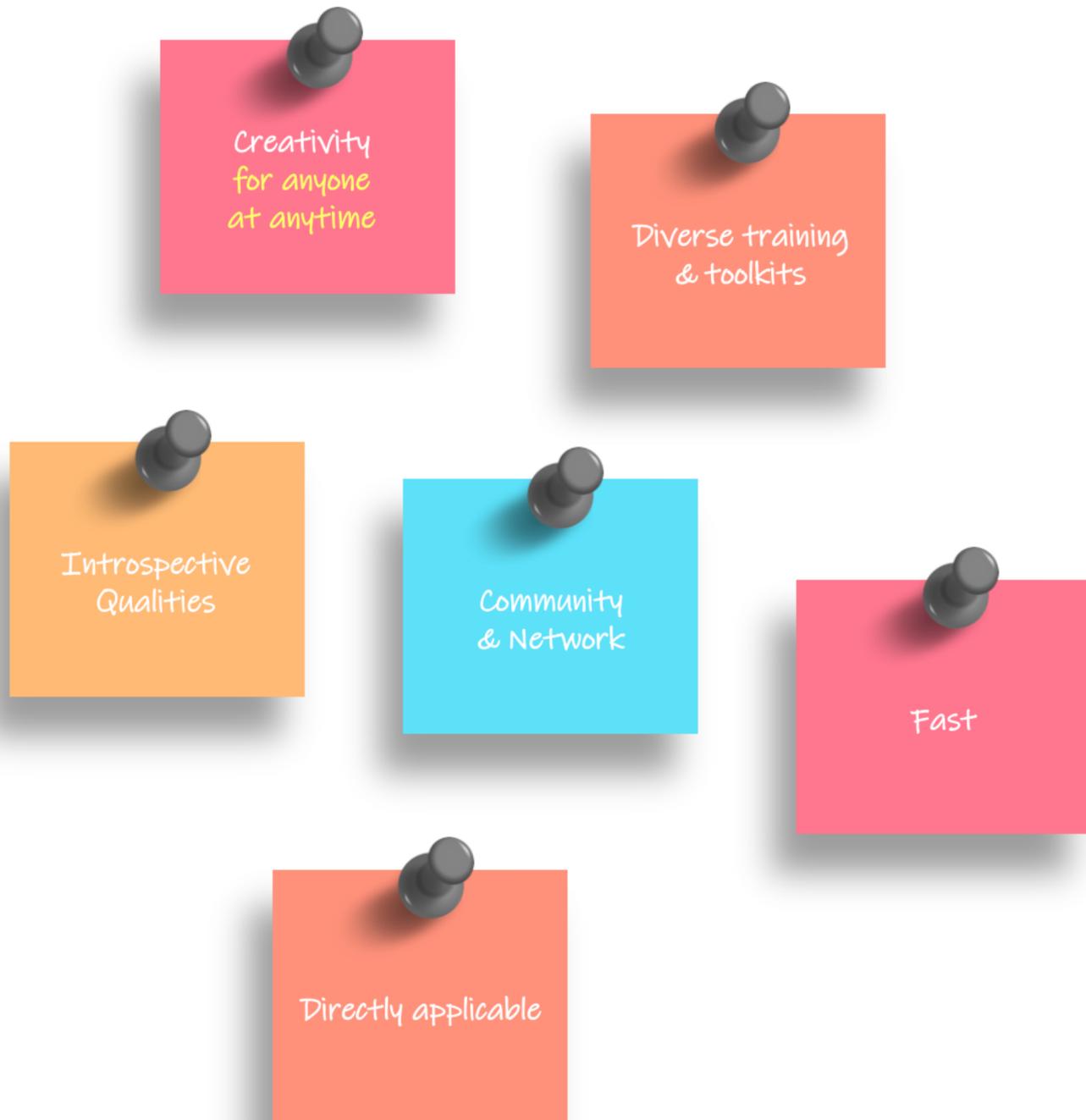
My research suggests that are many ways to meet the needs of the individual as well as the collective goals for a sustainable future. First of all, creativity doesn't need to be time costly as many are led to believe. In fact, by practicing creativity, it can save you time by making you more productive and become time efficient. By practicing creative thinking and applying skills and methods that encourages new ways of making associations, it can help increase your domains of knowledge which decreases time wasted on practices that are not effective. Neither creative people from creative industries, nor business professionals have a monopoly on creative thinking. It is a cognitive function that is part of the human brain and I would go as far as arguing that we all live and breathe human creativity by how we live and interact with each other.

I do agree that creativity has the power to create something from nothing as it has been depicted throughout history. However, I believe that the power to create is not restricted to a few hand selected individuals. **Creativity is a superpower that everyone possesses, and we can all be superheroes by simply changing our old ways of thinking and acting.** I strongly believe, that if we all unite, we have the power to change the world for the better. Albeit there are too many pieces currently missing from the puzzle of creativity in order for that to happen. Therefore, I decided to make my own.





Prototyping



Design Criteria

Based on my research and findings, I created a design criteria that would fill the gaps. I wanted to build an educating service, that is designed for everyone, at any time, and not just for those deemed "creative". As we know, everyone is creative, they just don't know it... yet. It needs to offer diverse training and toolkits that are fast and directly applicable to individuals' real-life problems. In addition, it needs to have introspective qualities so that people can track their progress and gain confidence in their abilities, and it needs to be a service that works as a network to foster a creative community where people can share, learn, inspire and connect.

Design Principles

1 As previously discussed, studies trace the origins of creative thought to experiences that generalized across domains of knowledge. The more remote a transferred skill of thought was, the more unusual solution or insight was produced. Therefore, structured training is essential to improve thought transferability across fields and expertise. When skills are applied in a new domain of knowledge, creative thinking is elevated. Methods that encourages new ways of making associations and uses examples from various contexts is an important part of the creative cognition. Hence, one of my design principles is to design a cross-industry prototype with exercises that supports and stimulates transferability.

2 Since my research revealed that people use creativity as a label that only some people have, I will avoid any form of labeling to measure creative competencies as "creative", "non-creative" or somewhere in between. I believe that negative labeling can be demoralizing, especially when labels imply that characteristics cannot be changed. When it comes to creativity, labels can be especially troublesome, leading some people to believe that they are naturally or inherently creative and others to believe that they have little or no creative potential. A competency score, I believe, is less intimidating than a label, particularly when the competencies have been identified as trainable. When creative ability is not viewed as a fixed trait, but rather as a flexible characteristic that can be improved through experience, labeling someone's current level has less potential to do harm. Therefore, my second design principle is to design a score chart of current abilities, with the promise that both scores and abilities can be improved. I want to give people a snapshot of their performance to date and allow for them to view their progress over time to foster optimism and motivation.

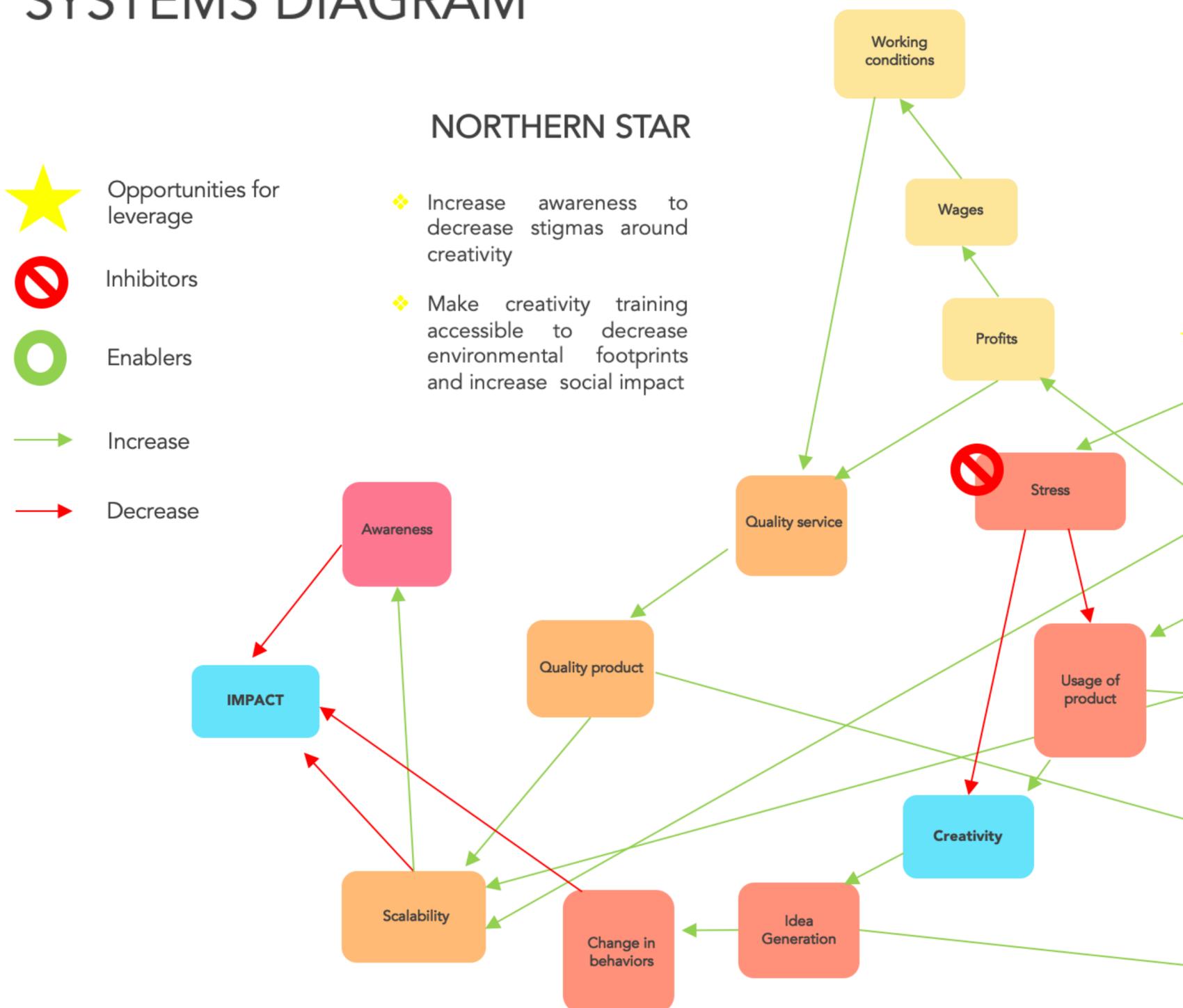
3 Lastly, I want to make sure that I design a product that promotes inclusion. You should feel comfortable using my product no matter what your job, level, role or career is. I believe that everyone is an expert in what they do, because they do it daily and they know the ins and outs. Therefore, they know what works and what doesn't work, hence they sit on the most valuable insights that can lead to new opportunities. Neither artists, nor consultants, have a monopoly on creative thinking, everyone can come up with new and improved ideas.

The Northern Star

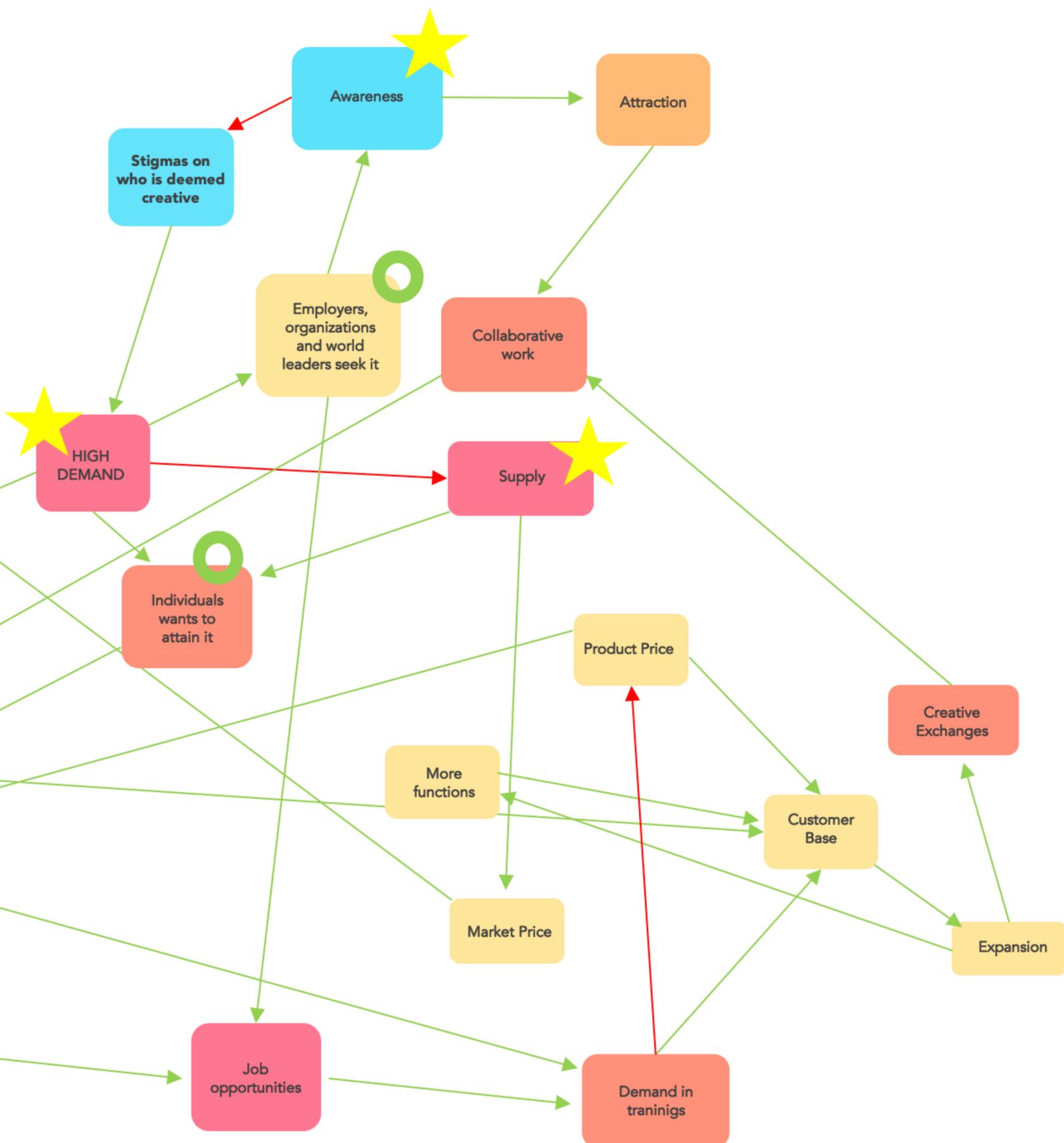
I dedicated a long time for deconstructing the problem statement in different ways and by applying various approaches before deciding on what product to build. Who are the main stakeholders? What are some enablers and inhibitors? These questions ultimately brought me to a personal place of asking the question why? Why am I doing this and why is this so important to me and to the world?

The fact that creativity is the most demanded skill, yet 59% of the population feel like they lack it, is a problem in itself. However, as I mapped out the impact of creativity training on a larger scale, it is not just beneficial on an individual level because it leads to more jobs and for sustaining jobs in the future.

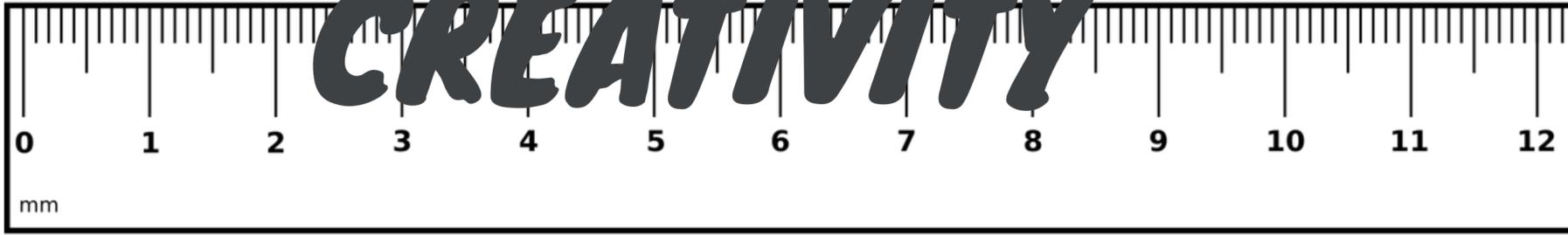
SYSTEMS DIAGRAM



Creativity is what drives society forward through its capacity for imagining and visioning a new future, hence it is essential if we are ever going to have a shot at making the world a better place. World leaders and experts all agree that creativity is necessary for a sustainable future, and it will require innovations across the boards and creativity in all fields. It was then I realized that a big part of my passion for this project and for this topic is the opportunity to have an impact on the bigger picture. Therefore, having a positive impact on environmental and social issues became my ultimate northern star as I began to prototype; I knew that I wanted my product to not only enable creativity training on an individual level, but foster open and collaborative work to solve real world problems on a larger scale.



MEASURING CREATIVITY



Creativity is not as abstract nor complex as people are led to believe. Here are commonly used exercises by creative professionals and professors alike that scientifically measure your creative performance, based on your idea generation and creative skillset.

These are simple and common exercises used to demonstrate the measurements of creativity. In fact, when I attended the first ever course dedicated to the psychology of innovation at Gothenburg University, the first prompt we ever learned was “list how many ways you can use a chair”.²⁵ This simple creative jump starter measures your abilities to produce ideas and is measured by the following

- Fluency - how many uses you can come up with
- Originality - how uncommon those uses are in response to how others have responded
- Flexibility - how many areas your answers cover
- Elaboration - level of detail in responses

Now, since I am focusing on the applicability of creative training, I have also added the component of feasibility - are these ideas practical and can they be achieved? The challenge in an exercise like this is to think beyond the obvious and stretch your creative thinking and you'll learn that the most creative ideas come once the obvious ones have been exhausted.

Adding an element of time, prompts you to use other cognitive skills crucial for creative output such as responsiveness, memory, imagination and non-judgement. Strategic exercises such as building with Lego, is a commonly used activity at creative workshops and tests further cognitive abilities that are important for producing creative output. Exercises like these prove that creativity does not have to take up a lot of your time and that there are concrete measurements to track individual output and progress which addresses two of the three key pain points in my research.

However, there was still the core issue to solve. How do we deemphasize the “nonsense” part of creativity, since everyone associates it with artistic skills? Let's be honest, training cognitive abilities or not, people don't want to spend their time thinking of how many ways you can use a chair or how many things you can cook with eggs or building Lego towers every day. So, I set out to redesign exercises for professional applicability.

OBJECT

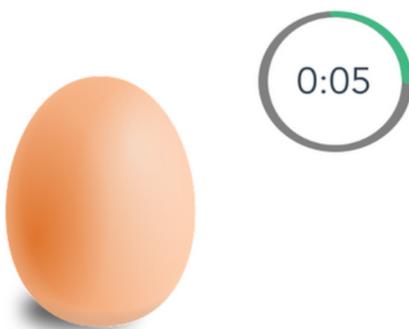
PROMPT

MEASUREMENTS



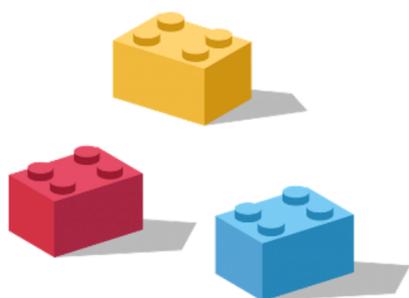
List how many ways you can use a chair

- Fluency
 - Originality
 - Flexibility
 - Elaboration
 - Feasability
-



What can you do with eggs?

- Responsiveness
 - Idea Generation
 - Memory
 - Imagination
 - Non judgement
-



Strategic exercises, for example building with lego

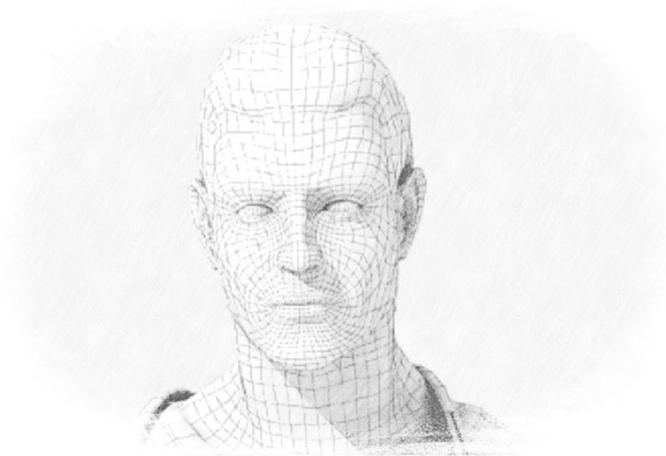
- Organizing
 - Imagination
 - Divergence & Convergence
 - Analytical thinking
 - Critical thinking
 - Decision-making
-

REDESIGN

OBJECT

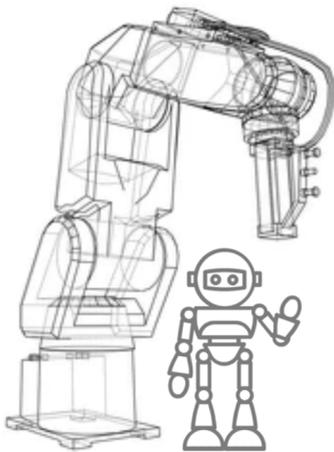
PROMPT

MEASUREMENTS



List how many ways you can use facial recognition

- Fluency
 - Originality
 - Flexibility
 - Elaboration
 - Feasability
-



0:05

What jobs could technically be automated?

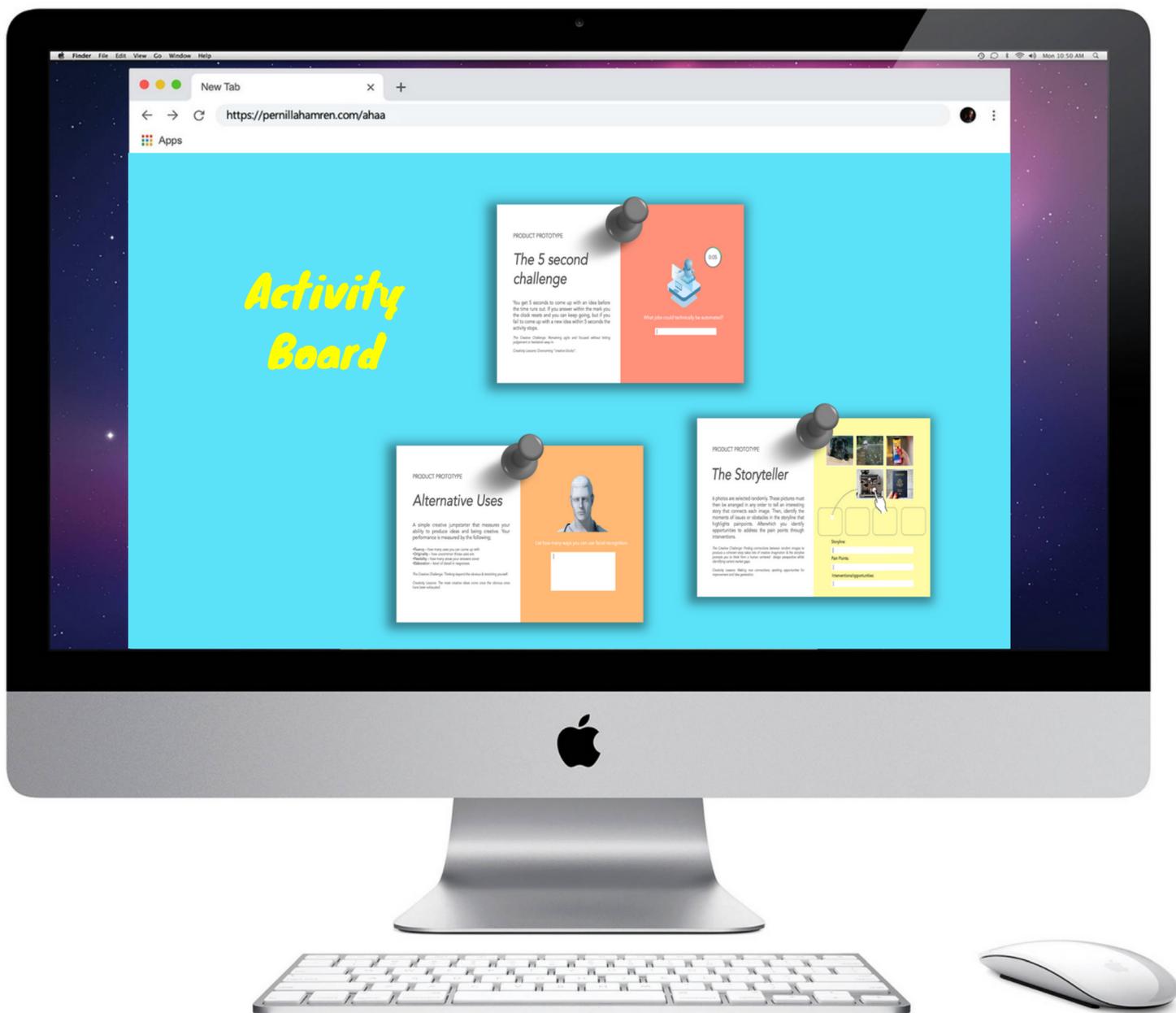
- Responsiveness
 - Idea Generation
 - Memory
 - Imagination
 - Non judgement
-



Business strategy, locating opportunities, risks & values

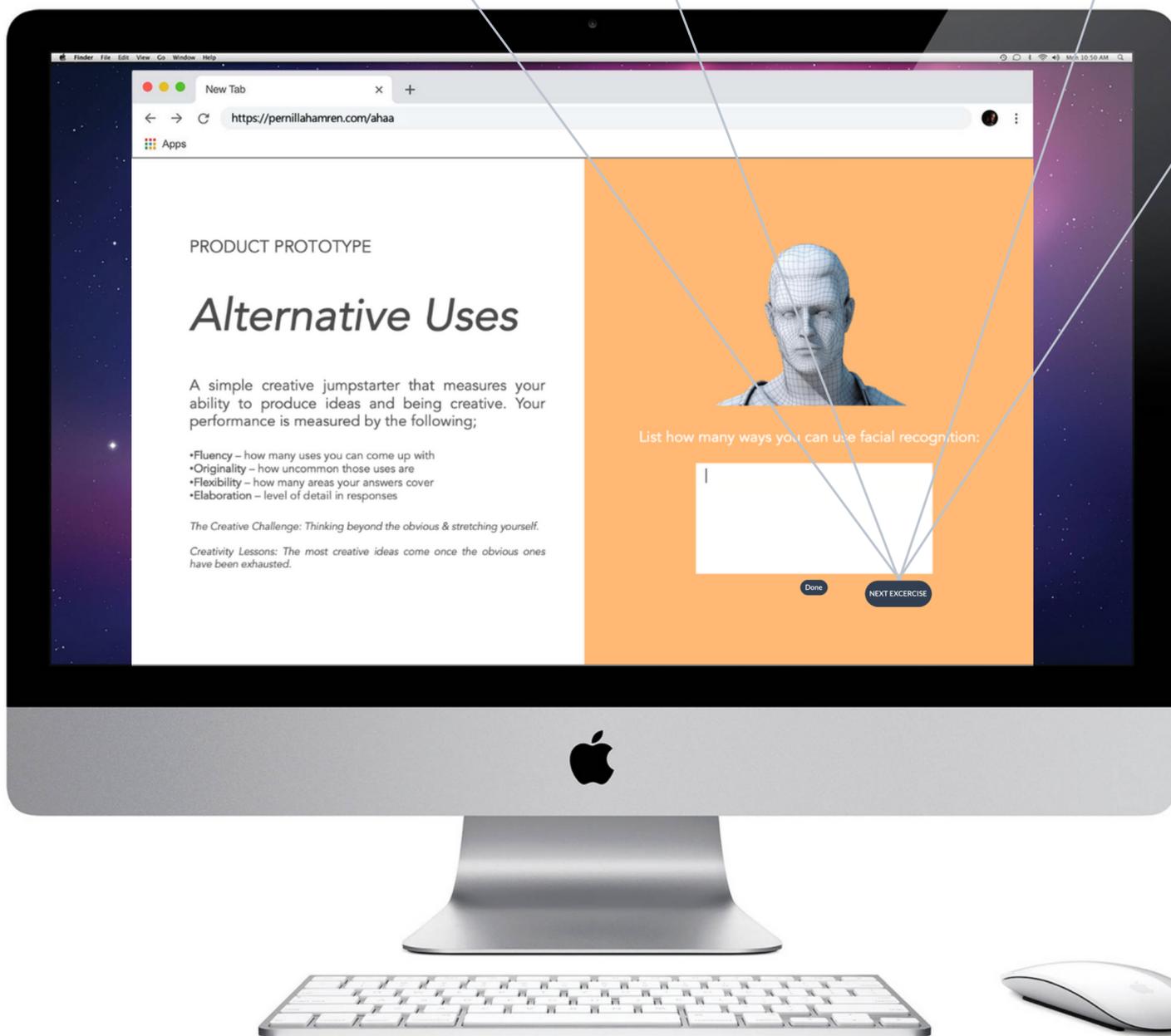
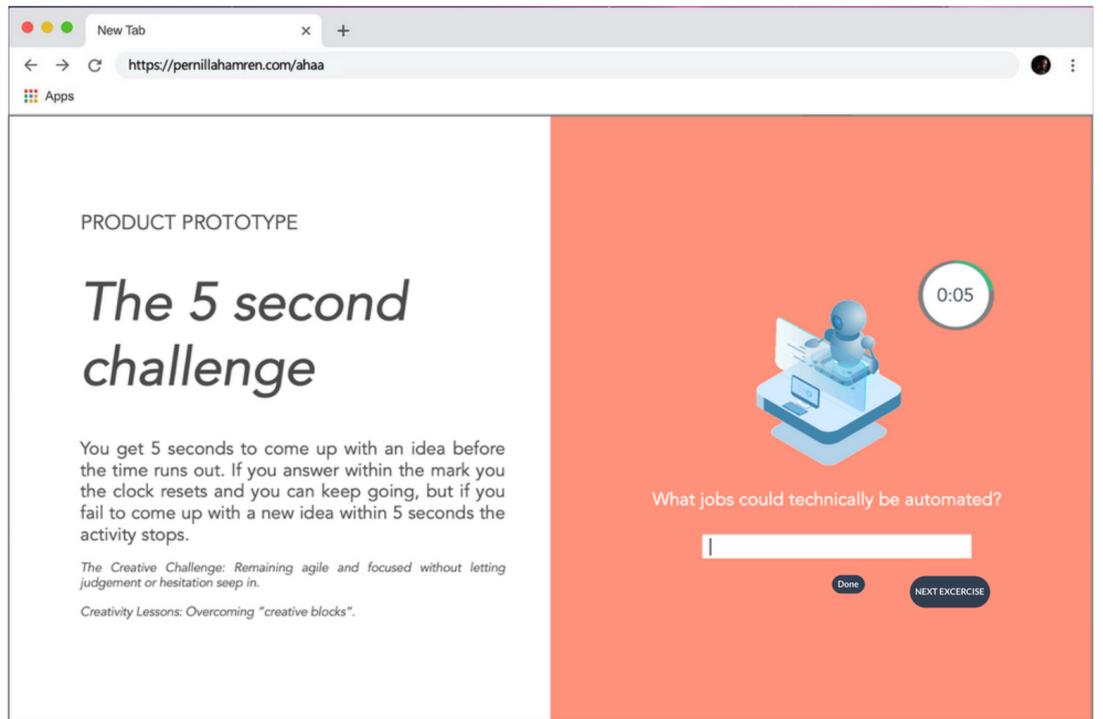
- Organizing
 - Imagination
 - Divergence & Convergence
 - Analytical thinking
 - Critical thinking
 - Decision-making
-

Prototype 1



After figuring out how to redesign creative training activities, I sought out to create a platform that people could access and test the activities. As I started prototyping, my design criteria acted as a north star throughout the ideation process. How do we combine creativity with technology to foster a collaborative community that can have a positive impact on our future? Creativity and technology are not mutually exclusive. In fact, if 1/5th of all jobs will be replaced by AI by 2030, it is crucial to combine creativity and technology to train for future work tasks and roles. Instead of suppressing creativity, technology has the ability to enhance specific areas of the creative process, by presenting a new platform for creativity to exist on (and come from). In addition, technology accommodates for the need of instant gratification which incentivize long term use and individual progression.

I initially started prototyping a beta version page on my personal website pernilahamren.com, so that the ten initial interviewees could test some of the prompts. However, I quickly realized that the beta version did not meet my design criteria since it did not leave any room for immediate scoring, progress tracking or interactive structure. In addition, participants felt that a website was static and that they had to go out of their way to do the exercises. The interviews revealed that both experts and non-experts are looking for fast products and services. So instead of spending time and resources on improving the website by adding new features and developing the interface, I went back to the drawing board to find a suitable solution and platform that would address all pain points.



“

**I DON'T HAVE
TIME TO BE
CREATIVE**

*Rasmus Carlström, 25
Accountant at NewSec & Business owner*

”

“

**I DON'T WANT
TO SPEND TIME
ON NONSENSE**

*Hanna Lundqvist, 26
Business owner & Consultant at Aspia*

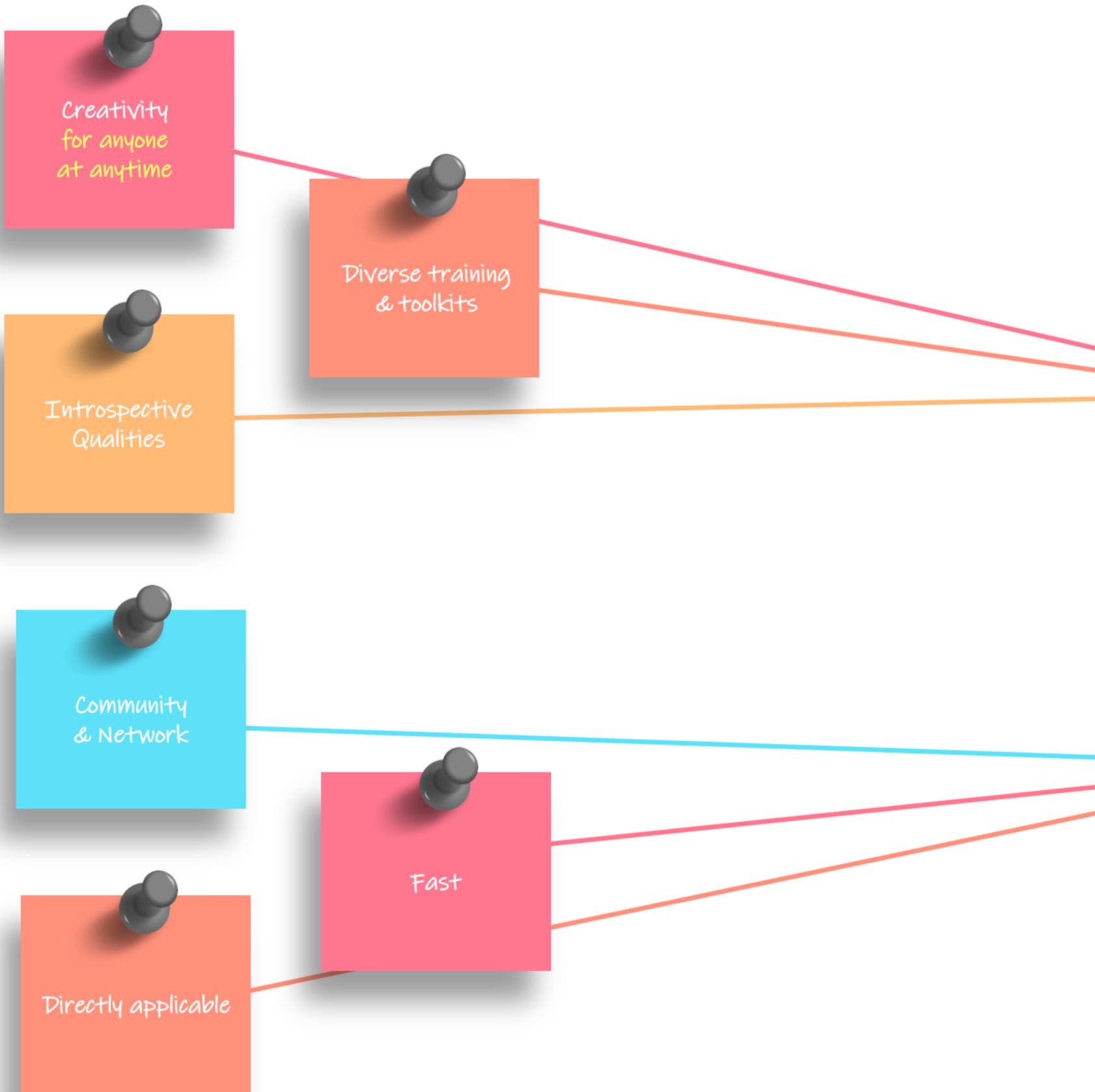
”

“

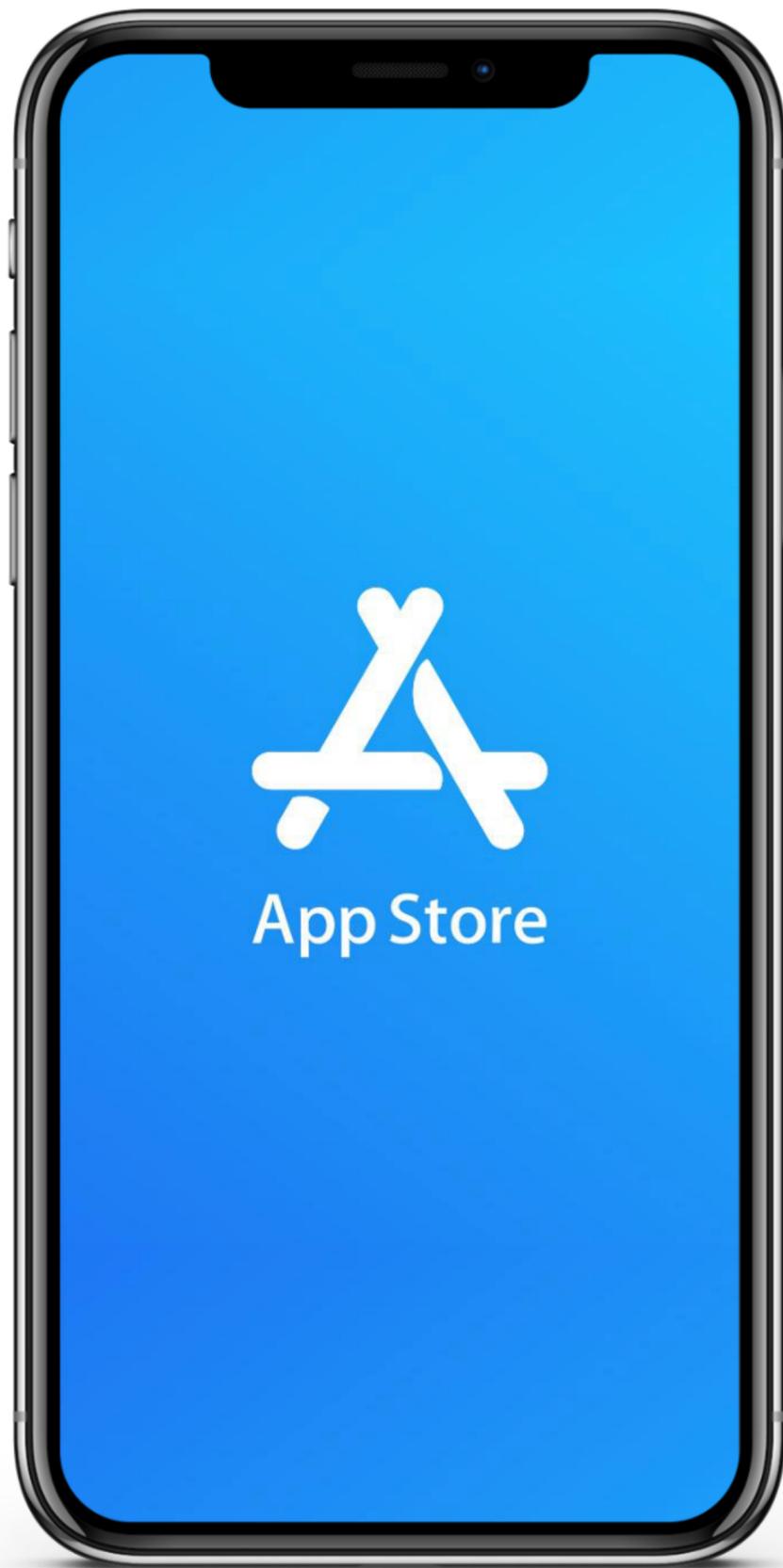
**I HAVE NEVER
BEEN GOOD AT
CREATIVE
THINGS**

Caroline Mockett, 31
Operations Manager at Business Sweden

”



Prototype 2



I decided that an app would be the most accommodating platform to adhere to my design criteria whilst addressing the pain points since it is easily accessible. Unlike existing creativity trainings online, that can take hours and weeks to complete, an app in contrast, can fill the gap on the market by providing fast services at your fingertips. In addition, it caters to the post pandemic consumer behaviors. Due to the rise of lockdowns, people rapidly adopted apps as a universal tool for work, school, shopping, fitness, entertainment, education and more.²⁶ In Q1 2021, consumers spent \$32B on apps, which is a 40% increase year-over-year from Q1 2020, and the largest-ever quarter on record.²⁶ The Global Mobile Application Market size is expected to reach \$278 billion by 2026, rising at a market growth of 8.9% CAGR during the forecast period.²⁷ Hence, it is also a great business opportunity.

26. Perez, Sarah. (2021) "Consumers spent \$32B on apps in Q1 2021, the biggest quarter on record" Tech Crunch, Mar 31
27. Business Wire (2020) "Global Mobile Application Market (2020 to 2026) - Industry Analysis and Forecast" BusinessWire.com, Dec 20

As I began to prototype for an app, I first sketched and mapped a structure for the various features that I wanted to include based on my collective insights. First of all, I knew that I wanted to offer individual creativity training, designed for professional applicability and that fostered cross-industry knowledge. In addition, I wanted to offer immediate scores and abilities to see individual progress over time. I also wanted it to be a co-creative space, where people could easily share ideas, find likeminded people or people with different skills to foster collaborative work. Furthermore, I wanted to adhere to my northern star, and include opportunities to not only showcase your abilities for the job market, but to put the creative training to use, to solve real life problems for environmental and social impact. As I reached this stage, I also looked at how to implement a long-term measurement for the app as a learning tool, as well as beginning to build a business and brand around the product.



MEASURING...

TRAINING EFFECTIVENESS

Reaction

Feedback form on learning experience after training

- Did the trainees like and enjoy the training?
- Did they consider the training relevant?
- Was it a good use of their time?
- Did they like the venue, the style, timing, domestics, etc?
- Level of participation.
- Ease and comfort of experience.
- Level of effort required to make the most of the learning.
- Perceived practicability and potential for applying the learning

Behavior

Test scores during and after the training

- Did the trainees learn what was intended to be taught?
- Did the trainee experience what was intended for them to experience?
- What is the extent of advancement or change in the trainees after the training, in the direction or area that was intended?

Learning

Long term impact on individual training (reported at a later stage)

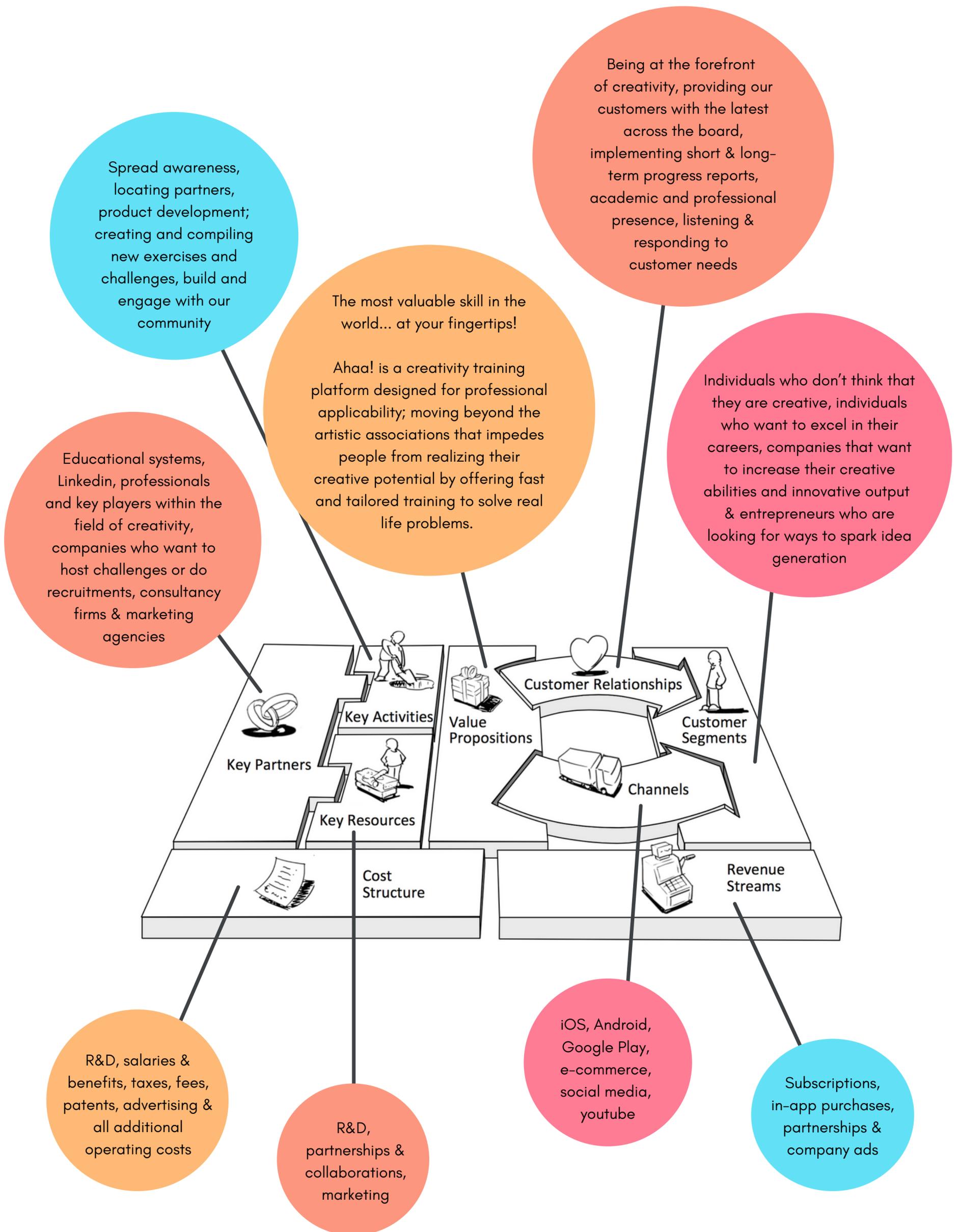
- Did the trainees put their learning to use when back on the job?
- Was there noticeable and measurable change in the activity and performance of the trainees when back in their roles?
- Was the change in behavior and level of knowledge sustained?
- Can the trainees transfer their learning to another person?
- Are the trainees aware of their own progress?

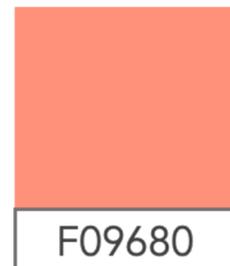
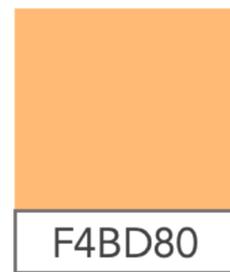
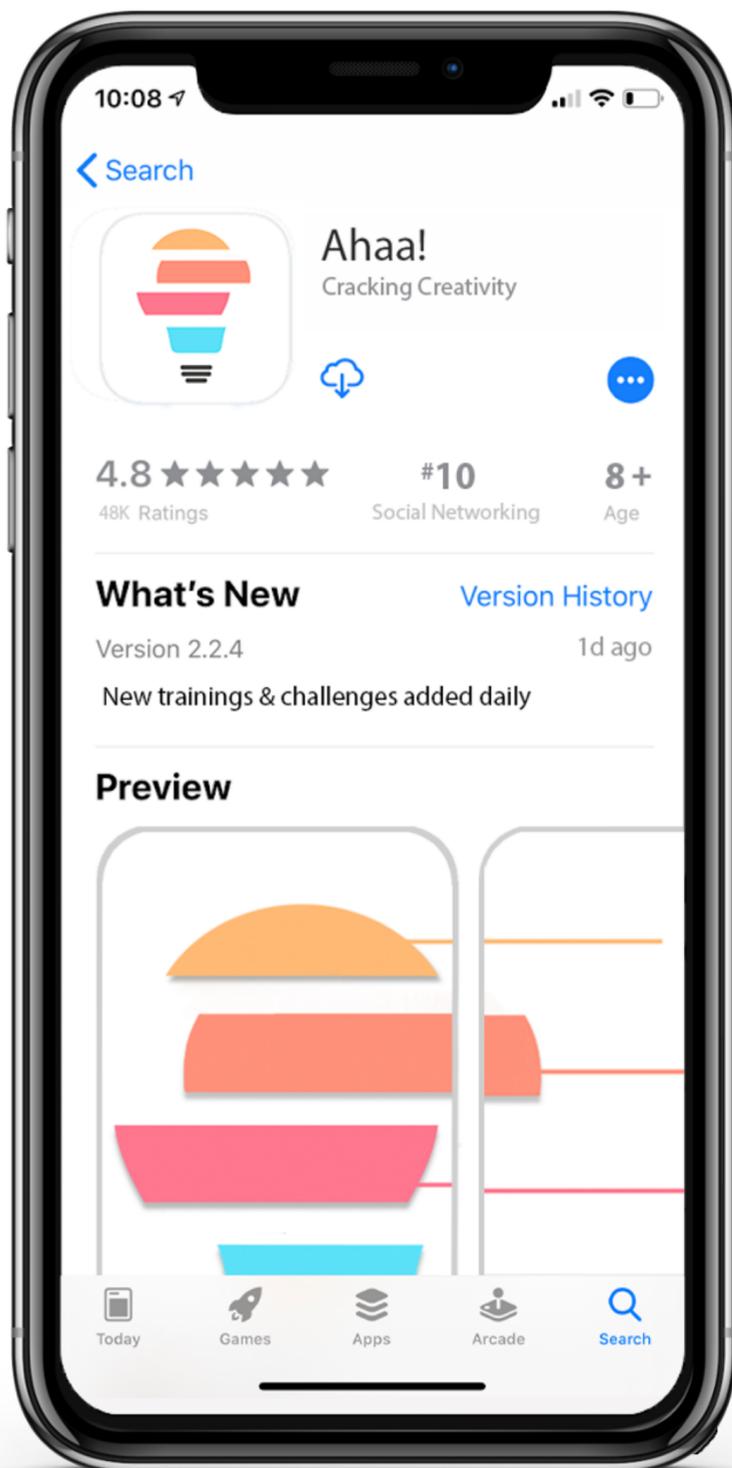
Results

Long term impact on organization (reported at a later stage)

- Increased productivity and quality of work
- improved business results such as cost reduction
- Employee retention
- Higher morale
- Customer satisfaction

Business Model

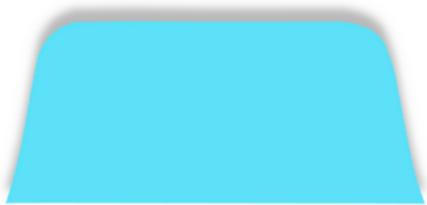




Design: Concept & Name

The brand name Ahaa! was born from the feeling that unites our perception and connection to creativity. It is a word that triggers an emotional validation and satisfactory feeling of accomplishing something. It is the feeling of reaching that moment of realization, a feeling that everyone can relate to. It is also a name that is currently available for patenting. The closest association with the word is a roadmap software company called Aha! Other organizations that use the same letters are AAHA - a veterinary organization, and AHAA - the association of historians of American Art. In comparison to the closest competition on the market which is Brainsparker, I believe that the name Ahaa! not only emotionally connects you with the brand, but it gives you a sense of promise that you will reach the stage of accomplishment. Later, I decided to create a color scheme and I wanted it to come across as playful, but not artistic.





Design: Logo

Creativity is often depicted as a lightbulb where an idea is symbolized as a light that is switched on. However, my research suggests that creativity is not a static cognitive function, but rather a dynamic and continuous process. Additionally, my research revealed that you need to practice your creativity through various methods which is why I wanted to stay clear from the typical representation of creativity. My design is built on the idea that creativity doesn't just happen, it's not just a switch that goes off, rather it is a complex cognitive function that incorporates other basic cognitive processes that takes practice to master. Therefore, I deconstructed the associated representation of creativity to emphasize the different uses of creativity. Furthermore, I wanted to make the abstract tangible by dividing the various creative practices into a four-step framework; Crack, Connect, Create and Change. Each of the steps have their own functions and purpose. The tagline is - Change your skillset, change the world.

Crack

(Training & toolkits, introspection tools, progress tracking)

Connect

(Profile, portfolio, collaborative work, match-making)

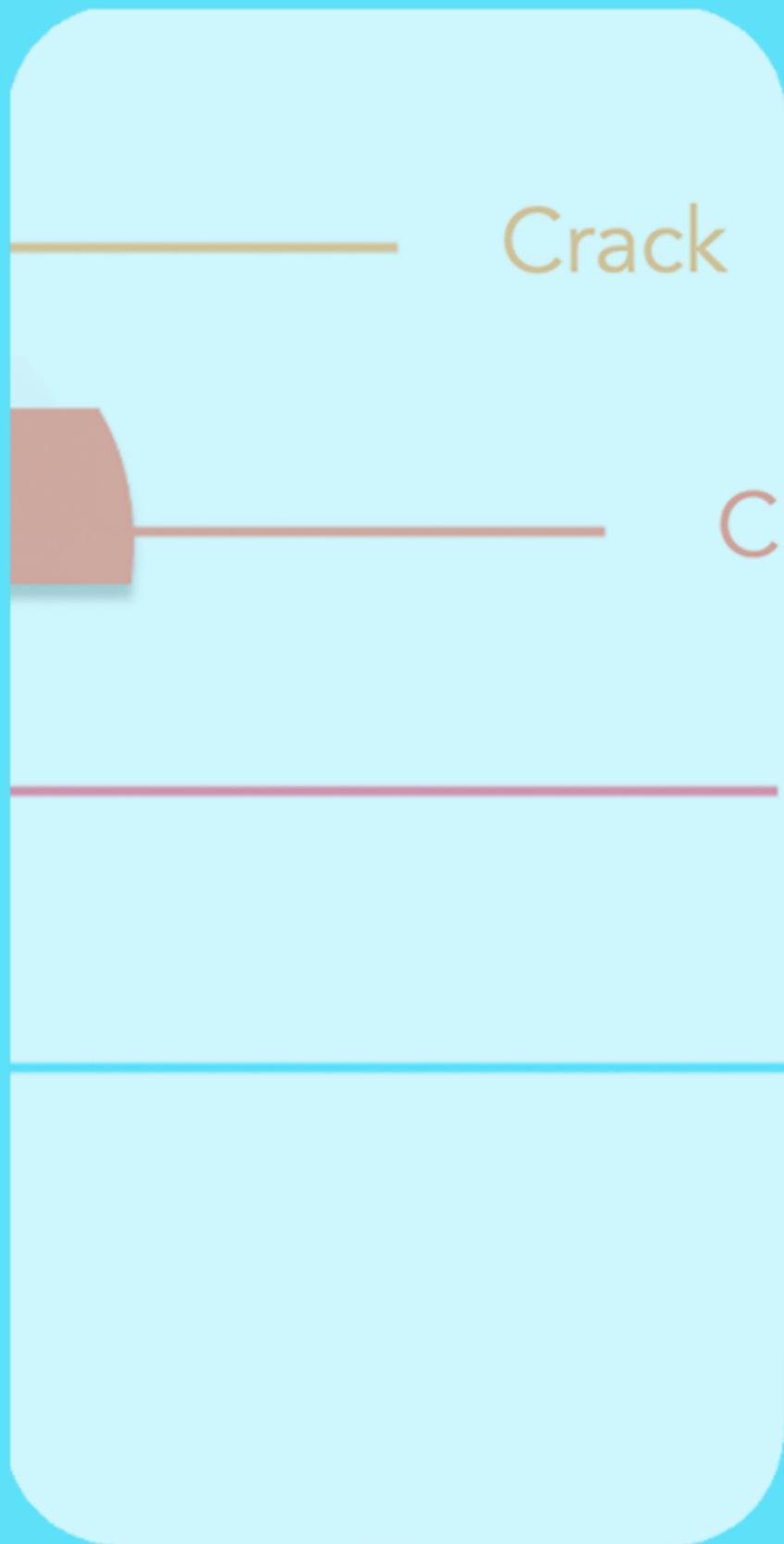
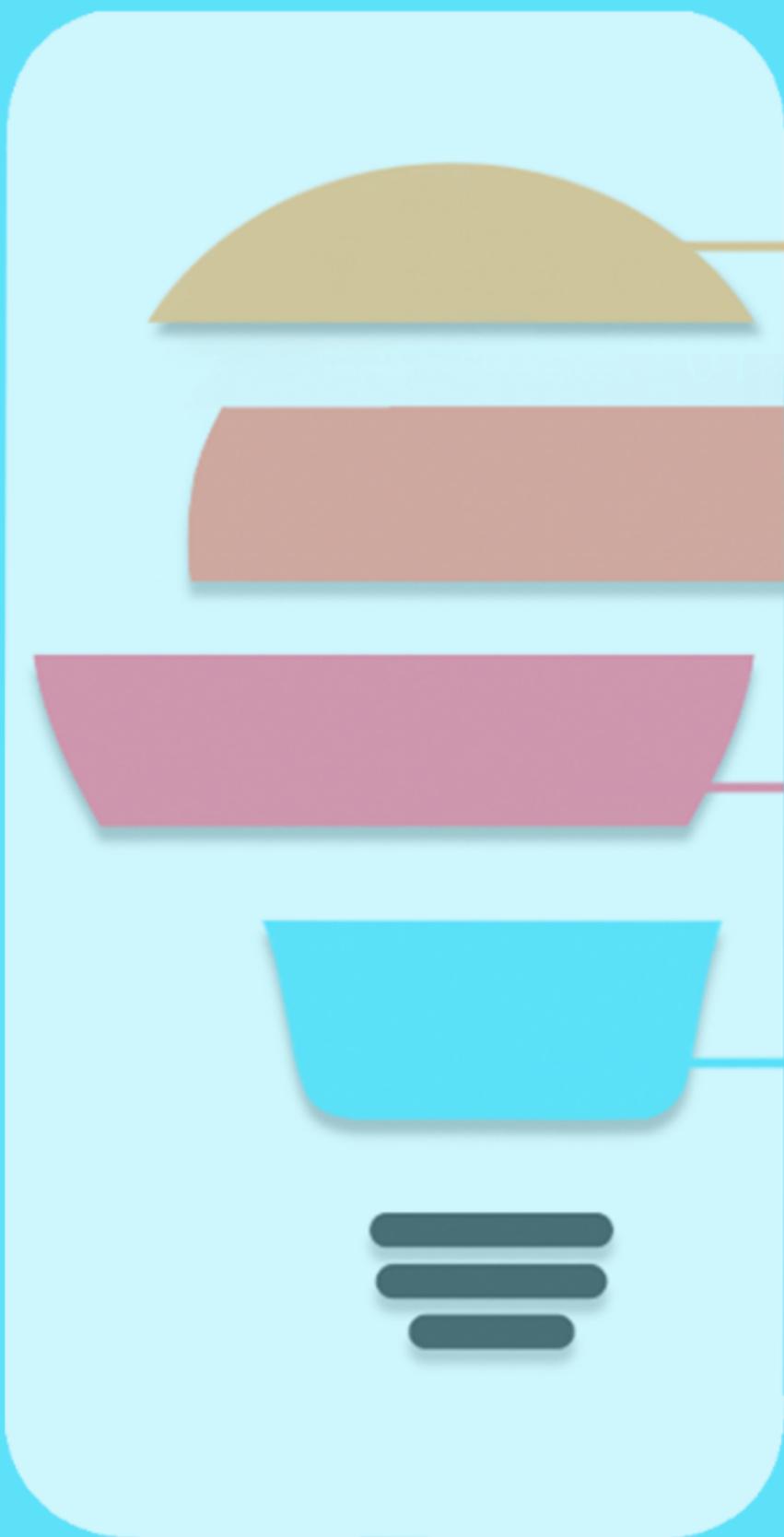
Create

(Challenges & contests hosted by individuals & companies: tackling social, economic & environmental issues)

Change:

Change your skill set, change the world

Introducing



10:08



[< Search](#)



Ahaa!

Cracking Creativity



4.8 ★★★★★

48K Ratings

#10

Social Networking

8+

Age

What's New

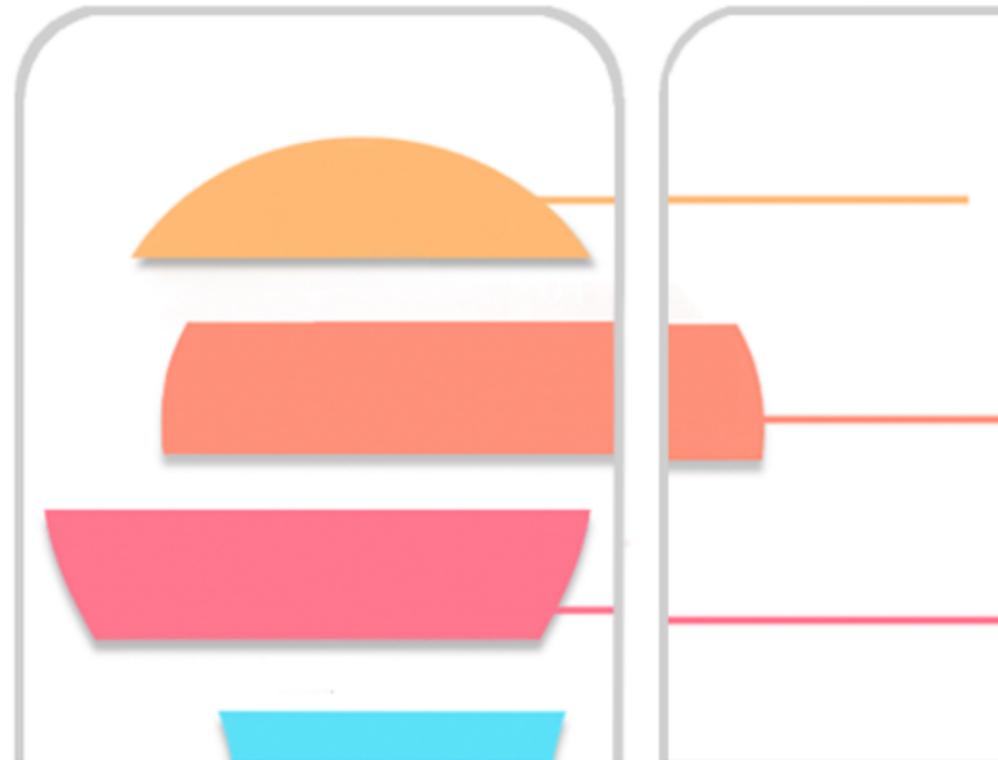
[Version History](#)

Version 2.2.4

1d ago

New trainings & challenges added daily

Preview



Today



Games



Apps



Arcade



Search

onnect

Create

Char

60

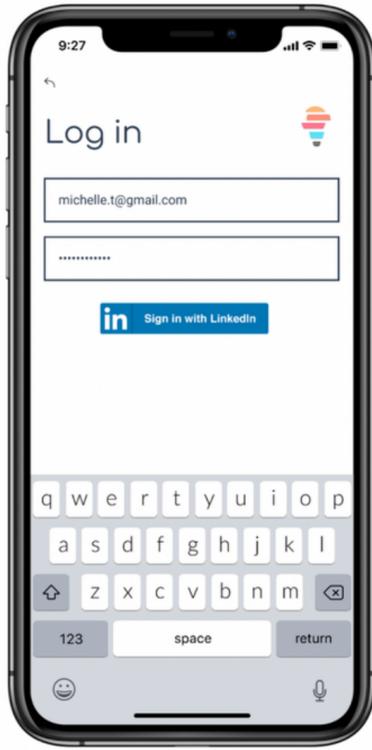
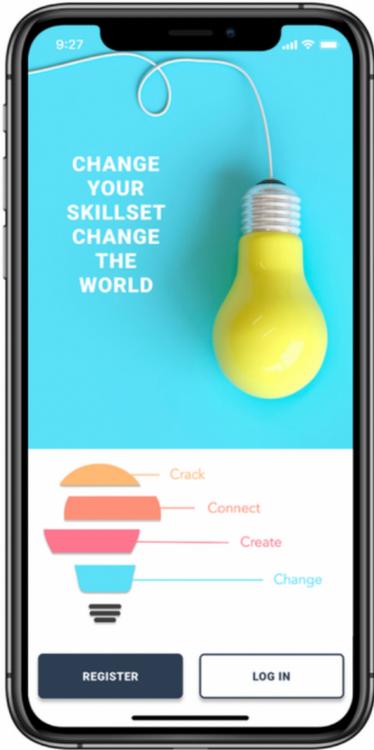


Change your skillset, change the world

Ahaa!

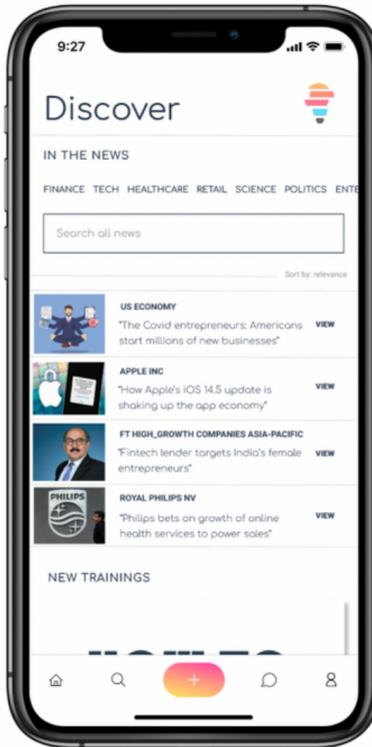
Introducing Ahaa! A creativity training platform designed for professional applicability; moving beyond the artistic associations that impedes people from realizing their creative potential by offering fast and tailored training to solve real life problems. Crack individual training to improve your own skillset and build a portfolio based on your idea generation and unique problem solving. Try exercises across the board and in all fields and begin building a personal library of creative ideas where you get immediate scores individually, and in comparison to how others have responded. Match with recruiters or connect with collaborators based on criteria, skillset or interest. Test, create and realize your ideas by entering open challenges and contests, hosted by companies and investors who are trying to tap into innovation, allowing you to pitch and showcase your abilities directly to the market. Finally, one of your ideas could make a change in the world.

Here's how it works...



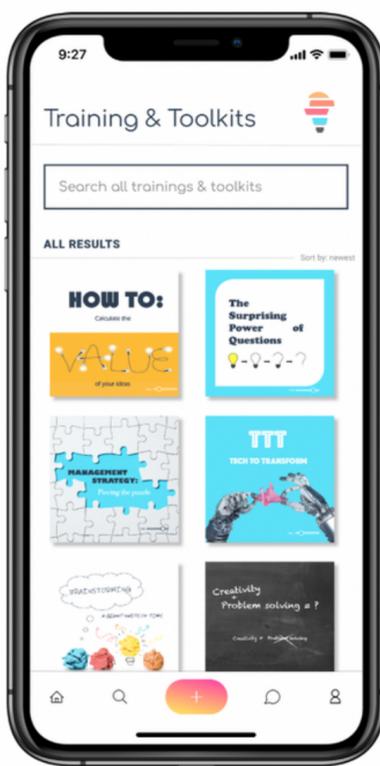
1.

Register as a new member or sign in with your LinkedIn account



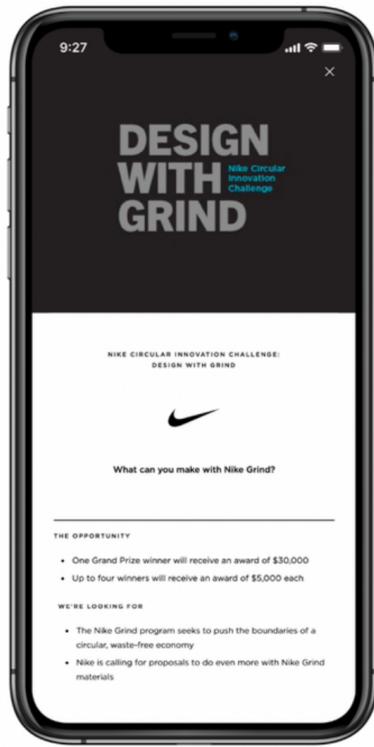
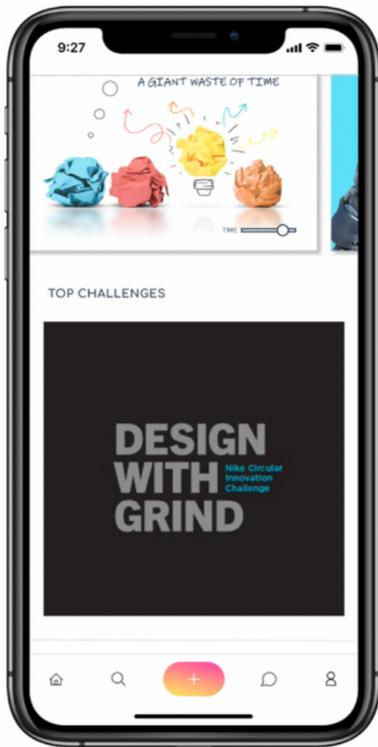
2.

Discover the latest in creativity and innovation across the board



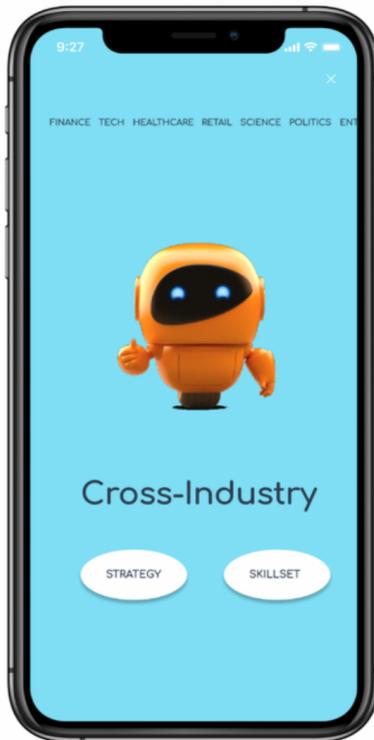
3.

Choose one of our creativity trainings to improve your own skillset...



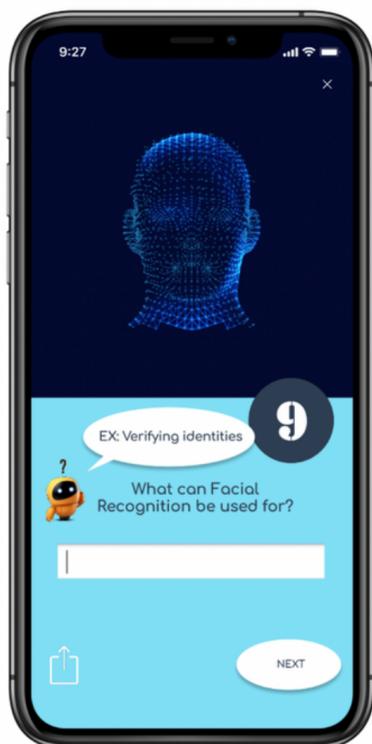
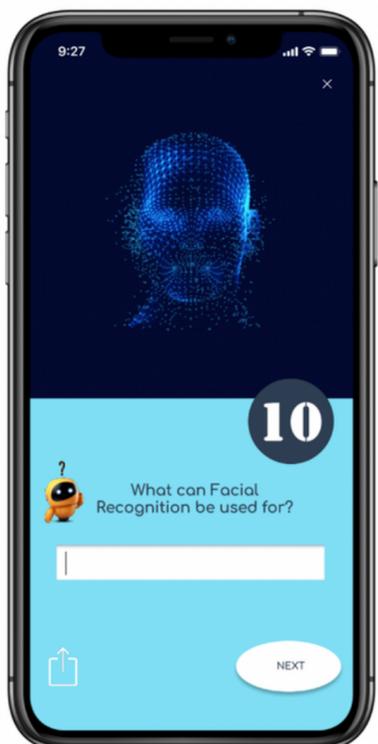
4.

... or enter challenges hosted by companies and investors, allowing you to pitch and showcase your creative abilities directly to the market



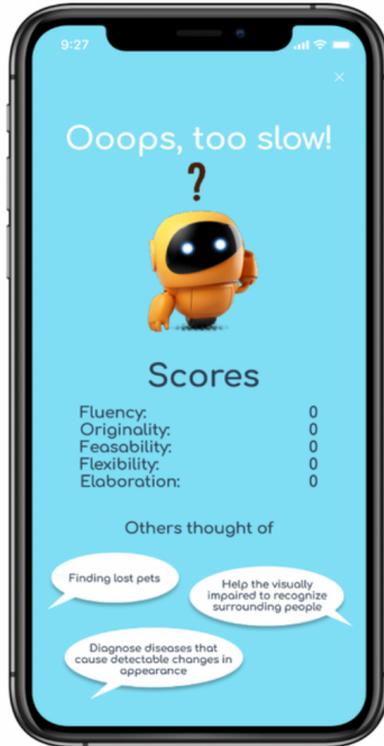
5.

The more transferred a skill of thought, the more innovative solution can be gained, which is why all trainings are cross-industry designed by default



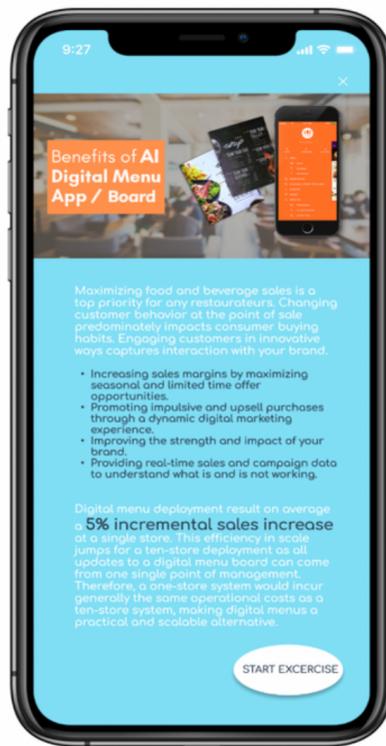
6.

To prevent creative blocks, we always give you an example to illustrate the prompt and you'll learn that the most creative ideas come once you have exhausted the obvious ones



7.

Once the exercise is over, you will get an immediate score on your individual performance, and in comparison, to how other's have responded on the same prompt



8.

If you have a particular interest or objective, you can also choose to tailor the exercises for a specific industry. For industry specific exercises, there are brief introductions to share insights on the subject and to show you how it translates into tangible values



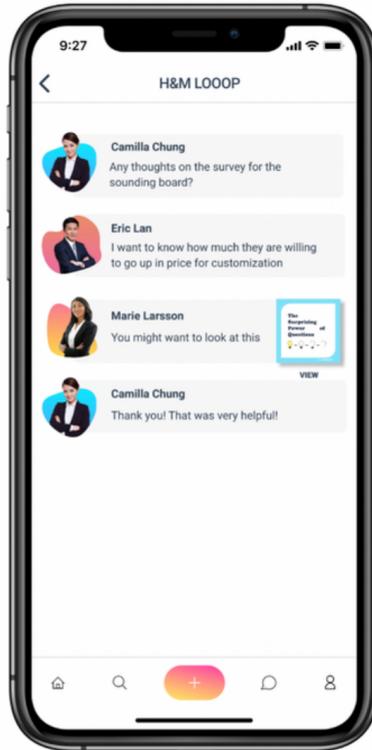
9.

Some exercises might prompt you to spot opportunities, others risks or think of something entirely different. The more ideas you are exposed to, the more creative your output will become since we unconsciously draw from experiences and memory in the moment of creation



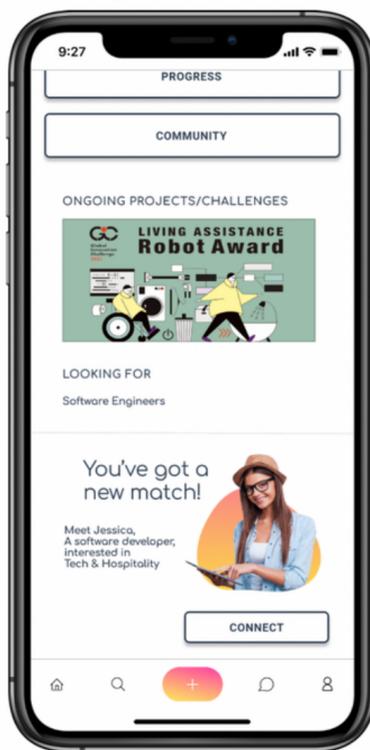
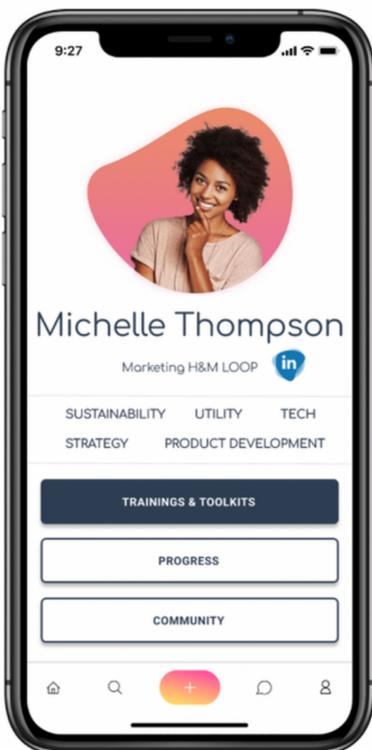
10.

And whenever you reach that Aha! moment, you can easily save or share your idea....



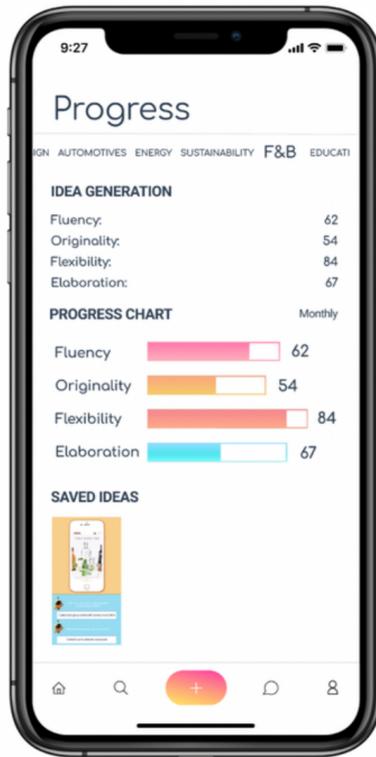
11.

... with friends, colleagues or specific work teams



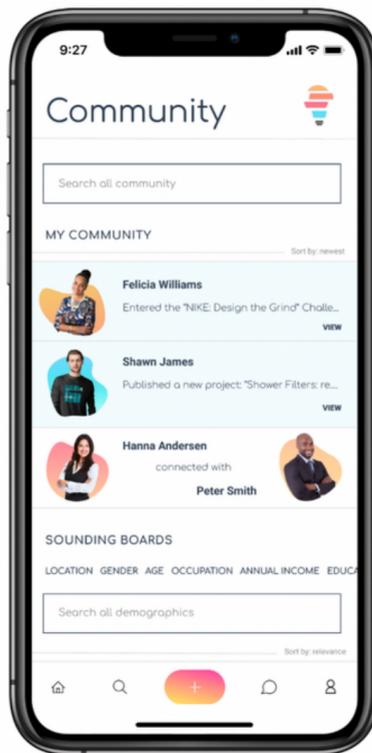
12.

Your profile is your portfolio of ideas and unique problem solving that you can use to match with both recruiters and collaborators



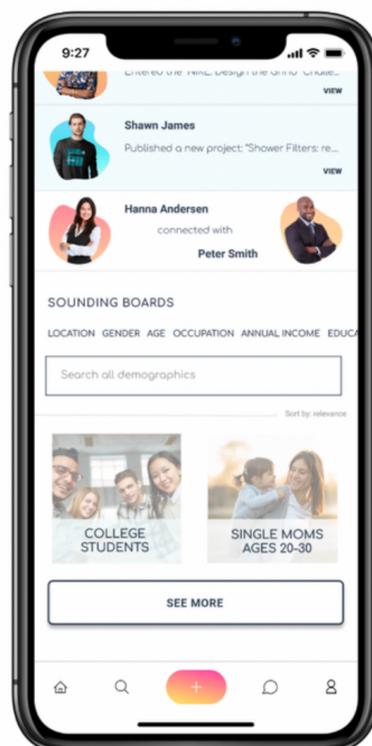
13.

See the progress of your creative skillset or look at your performance by industry. You can also see your top original ideas, meaning the least expressed ideas in the entire community, giving you a real time value of your competitive advantage



14.

On the community page, you can interact with your community & beyond

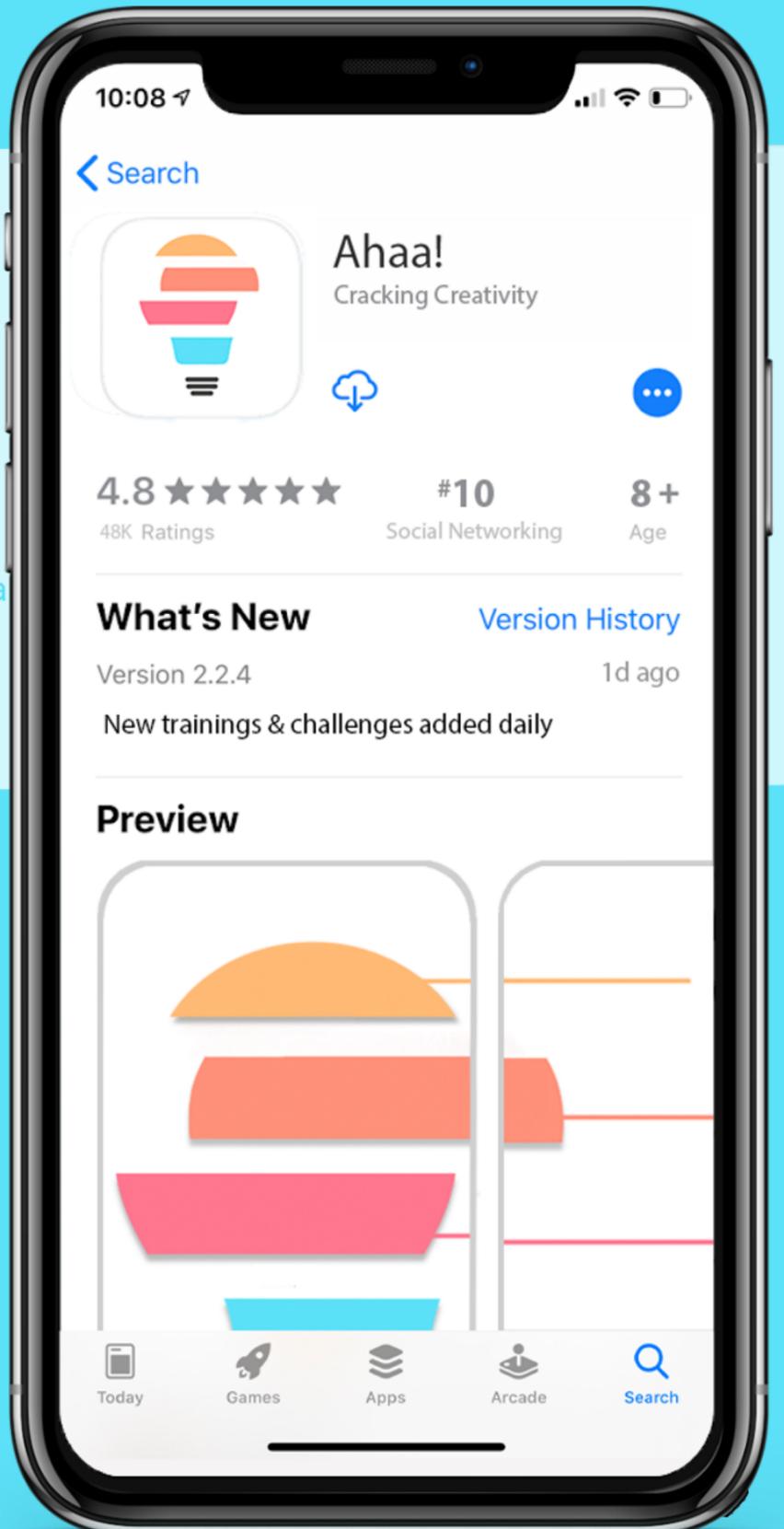
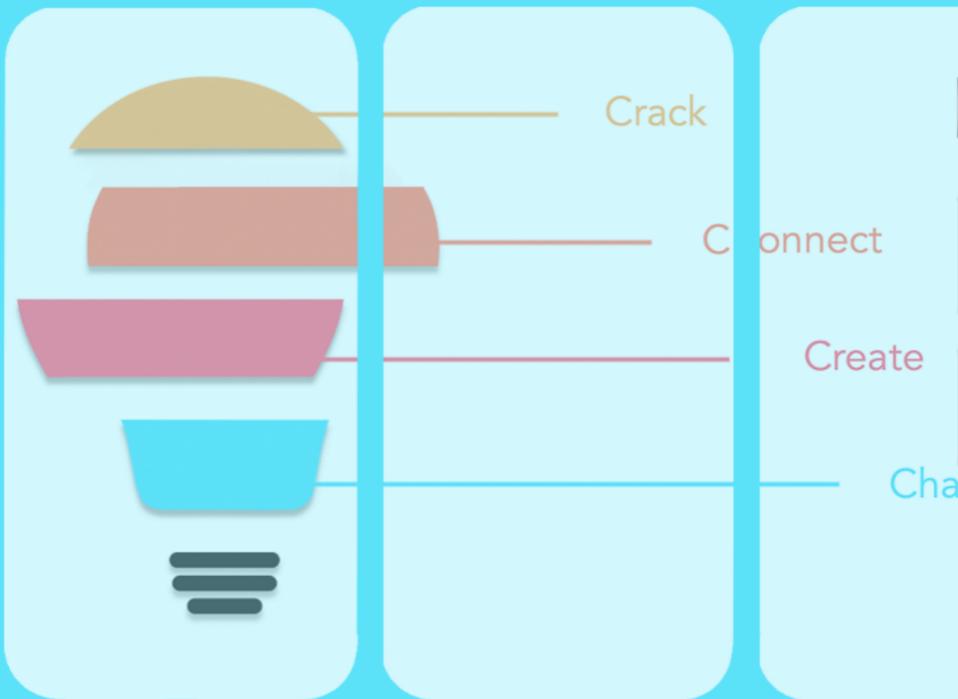


15.

Wanna test your ideas in the real world? Run them by the experts, the people, in our demographic sounding boards, allowing you to get firsthand insights

So, do you want to become better at solving problems and finding creative solutions?

Do you want to accelerate your career opportunities?



*Join Ahaa! today
& unleash your
creative potential*

