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INDEX

THE SCENARIO

R

What will the landscape of higher education look like in 2037?

The future of education could be envisioned to be flexible and dynamic, in a system where the physical boundaries of spaces and roles are broken down.

This aspect of flexibility will become a must in the forthcoming projects and interventions that will take place in the future. Life is changing faster and faster, so the world has to be ready to adapt to unexpected needs.

Our planet is becoming an intense place of activity and innovation, and the challenges that are arising are turning into more complex situations, so humanity cannot stay behind. In particular, as our society advances, so does the education system: the curricula, the required hard and soft skills, the way we teach new generations. To start delineating possible future scenarios of education, we must ask ourselves:

Who is the student of 2037?

Our society is developing technologies quickly to the point that automation and AI will lift productivity and economic growth, replacing human tasks. Millions of people worldwide may need to switch occupations or upgrade their skills. For this reason both students and workers will have to acquire and improve their soft skills, to be more efficient in their jobs, and especially in those industries that are set to see a smaller growth.

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Which is the best way to improve personal skills?

Horizontal learning is a way of passing knowledge between peers, with students, teachers and educational experts sharing insights as equals. Compared to vertical learning, our traditional archetype of academic lecture with a professor monologuing in front of several, even hundreds of students, horizontal education is better suited for smaller classes where students can more easily interact with each other. While traditional vertical education is great to build hard knowledge, an horizontal model is more appropriate to reshape and acquire soft skills and even some specific teamwork hard skills. This model gives a huge opportunity for students and teachers to find out together what each one needs, on a principle of reciprocity. A questioning teacher is more of a role model than a teacher only showing how much they know.
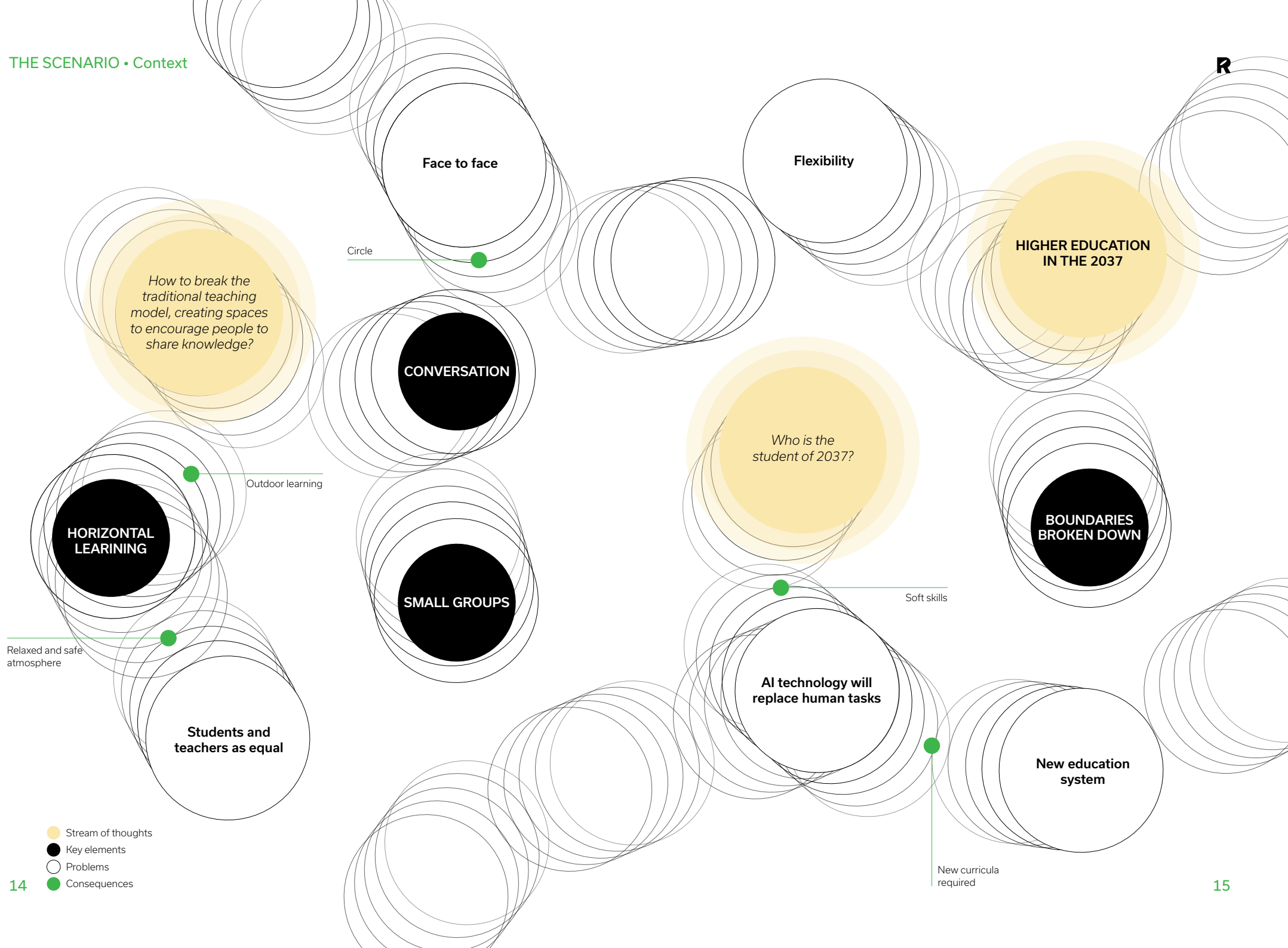
How can we break the traditional teaching model, creating intimate spaces to encourage people to share knowledge and learn more passionately?

Horizontal education is the key

It is important to create a relaxing and safe atmosphere where everybody can give their opinion without feeling judged, simply enjoying a conversation and exchanging personal points of view. In order to have a conversation where everybody can feel part of and speak up, the maximum number recommended is 4 people in a group. This can help improve oral communication skills, as well as other conversation abilities. In a context of horizontal, conversational learning between smaller groups of peers, where there is no more the role of the teacher but the role of the facilitator is assumed, transferring the classroom outside can be another element that helps students get in a relaxed, more outgoing state, while developing values, opinions, and soft skills. Being outdoors and in isolated places, students found a perfect place to focus with no distractions, with experiences of contemplation and gazing. Another factor to make everyone feel equal at the same level is assuming the circular configuration because in this way everyone is encouraged to talk face to face to the people next to them, building a community, rather than being a passive agent.

small groups

outdoors

R

Face to face

Flexibility

HIGHER EDUCATION
IN THE 2037

Circle

*How to break the
traditional teaching
model, creating spaces
to encourage people to
share knowledge?*

CONVERSATION

*Who is the
student of 2037?*

Outdoor learning

BOUNDARIES
BROKEN DOWN

HORIZONTAL
LEARINING

Soft skills

Relaxed and safe
atmosphere

SMALL GROUPS

AI technology will
replace human tasks

Students and
teachers as equal

New education
system

Stream of thoughts

Key elements

Problems

New curricula
required

14

Consequences

15

Everybody can be a teacher and everybody can be a student

The learning in 2037 will increasingly be decentralized so that instead of having classrooms, smaller places will allow closer interactions between peers, letting people study whenever, whatever, and with whoever they want. Education will be horizontal, in a system where boundaries between professors and students are no longer a problem. Knowledge will be shared face to face in an easier and in a faster way, allowing humans to grow and help each other. This project put the main focus on outdoor public spaces, where small and private spaces will form intimate environments and will allow people to have relaxed conversations. In this way the space of the traditional classes will be "dematerialized" and the people themselves will create and change it according to their needs. In this scenario, people are willing to explore new topics and challenges, and share peer to peer experiences, reflections and open questions.

Constructive conversations in intimate public spaces

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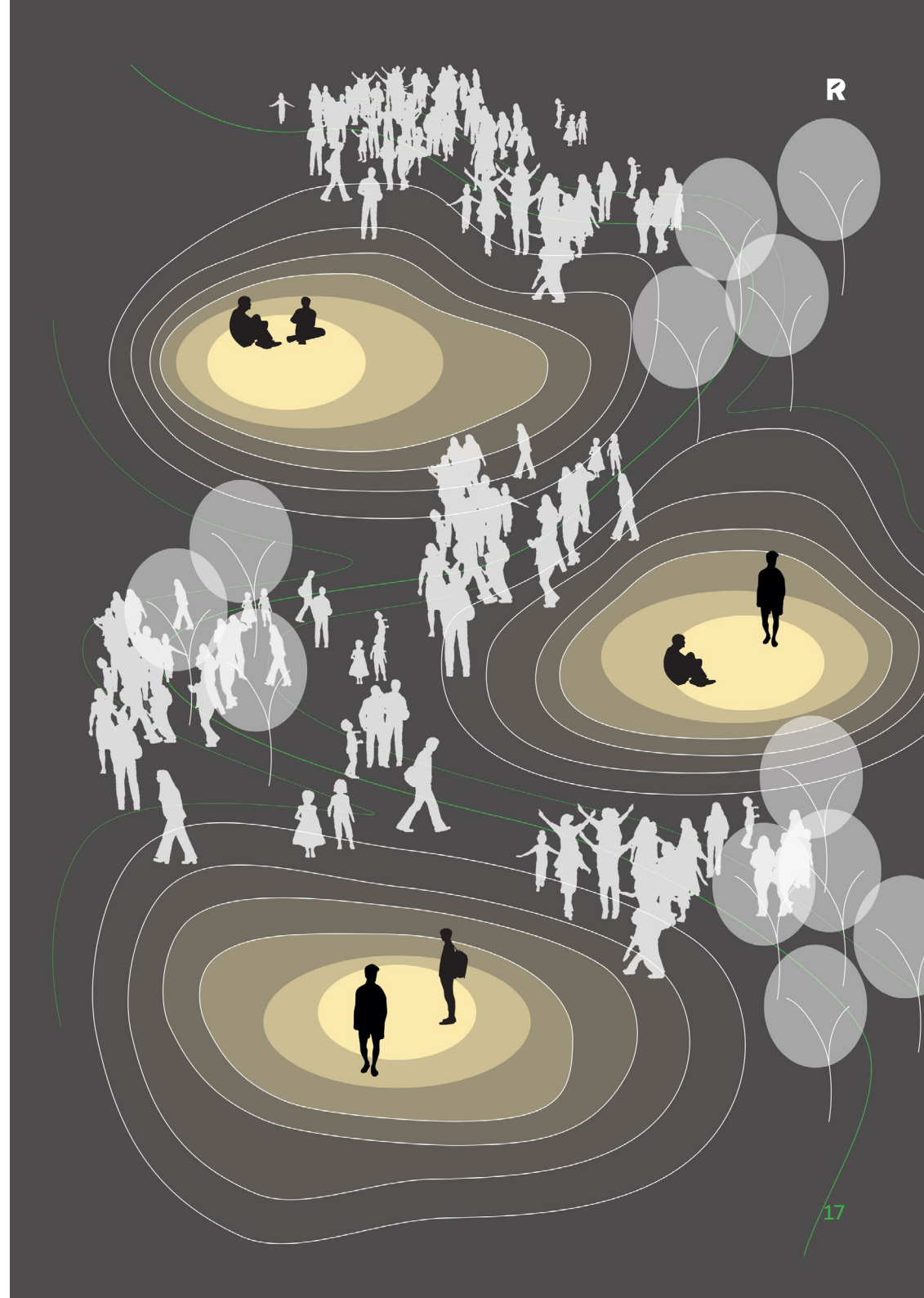
Who is it addressing?

The scenario primarily addresses the students and teachers of local universities all over the world in 2037 who need to close the gap between them and be able to culturally enrich themselves from each other. They are led by the desire to be heard and to listen to others in a community where everyone is equally worthy.

Why is it relevant for the future?

This distance in human relations is also an important and investigated topic of the social sphere of future generations. In fact, there is more and more talk of a push towards a "liquid society" (theorized by Zygmunt Bauman) where individualism takes over and human relationships are limited to randomness. In a future scenario, therefore, where the increasingly advanced technology will only increase the physical distance between people, it will be essential to focus on new teaching methods that bring students and teachers closer to their emotional sphere.

What is the problem?

The distance between professors and students, adopted today in the system of vertical teaching, does not allow the establishment of a human relationship of exchange between these two figures. This unbalance between roles could lead to difficulty in sharing opinions, knowledge, questions, feedback, holding down every communication. That's why most of the lectures today are not profitable for students, who just follow the lessons in a detached way without interacting with teachers, then find themselves learning information from books and not from professors directly.

How we achieved it with TOK?

We envisioned a product service-system which enables users to meet in a specific location and time for having "a knowledge exchange session", by giving each of them their personal space within the conversation. A new way of learning, that permits teachers and students to grow together thanks to an open exchange of opinions and expertise, is therefore accomplished in the simplest and natural way, thanks to TOK. The brand aims, in fact, to create new opportunities to exchange in relaxing and informal contexts, where the interaction between people is the basis for a spontaneous and fast learning. A model of horizontal education in small groups will allow students and teachers to present and discuss topics of their choice. At the end a community of people with different ages, cultures and passions is created within the university itself and even throughout the city.
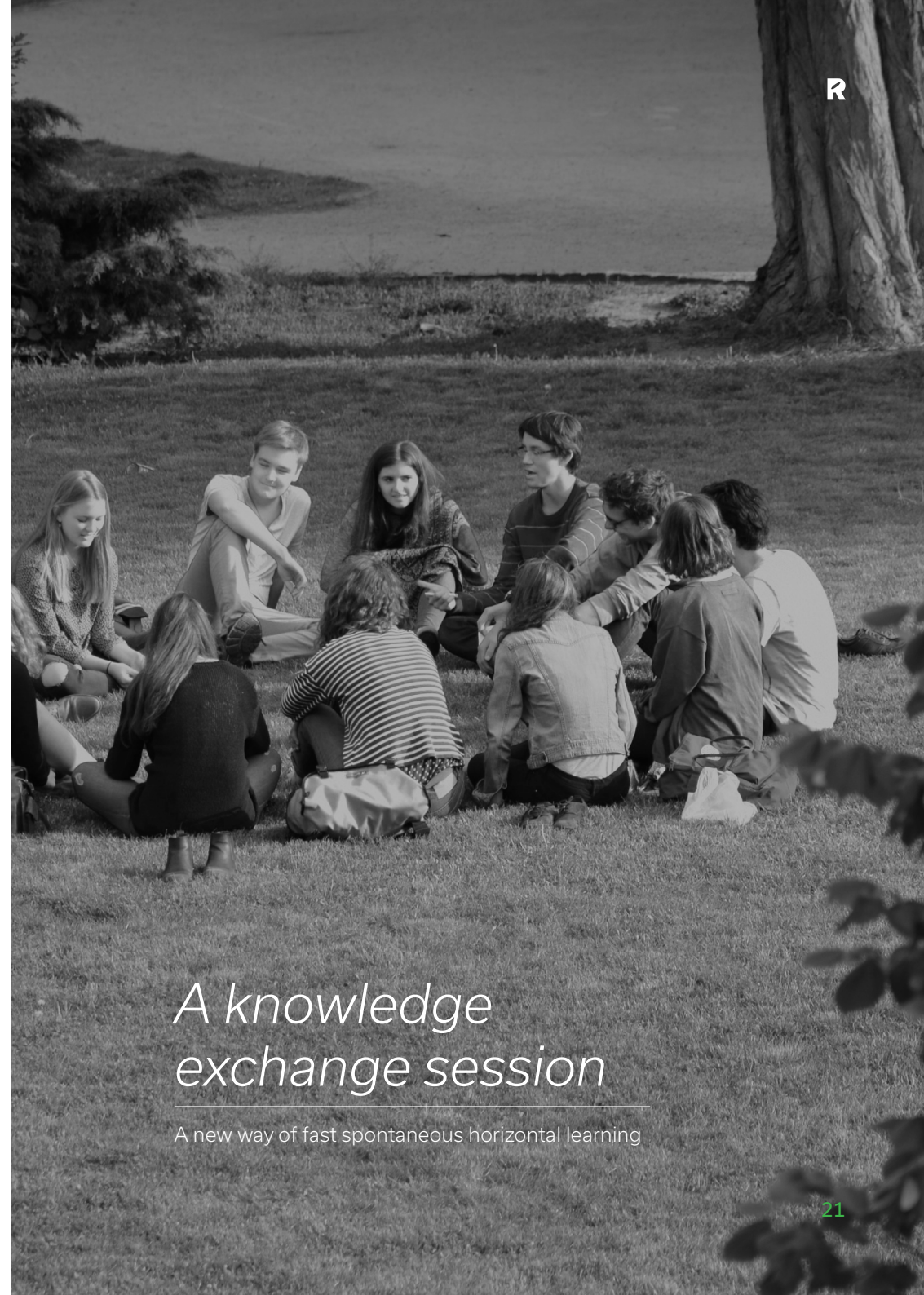
A knowledge exchange session

A new way of fast spontaneous horizontal learning

THE PRODUCT

T O K - O

R

The circle of knowledge
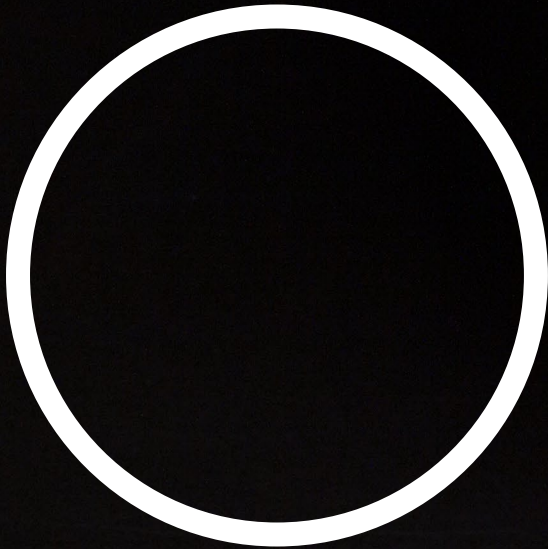
A platform that guides you during a conversation making the passage of time visible

A space for people to meet and share knowledge in a relaxed and unjudged atmosphere

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TOK-O

TOK-O is a circular platform, which has been developed to perform gatherings of people in order to have conversations and presentations: welcoming from 2 to 10 people, thanks to the different sizes available. TOK-O will be your future learning guide, helping you improving your communication and time management skills. You will also have the chance to see your progress directly on your phone.

T O K - O

- Different sizes available
- Time management light
- Analysis of the session with personal report
- Wireless connection with mobile devices
- Live online transmission
- Easy to use and transport
- Reusable and recyclable

⌀ LARGE SIZE
4 meters

⌀ MEDIUM SIZE
3 meters

⌀ SMALL SIZE
2 meters

Body positions

These wooden platforms are designed to offer different ways to sit or stand. The thickness is wide enough to allow the user a place to sit down with the feet laying on the ground. But also, its surface allows you to sit, stand or lay. Passersby will be able to listen to the conversations that are taking place on the TOK-O. Not only official assistants will be the ones that can participate, but also passive listeners that are interested on the topic.

TOK-O

TOK-O is a circular platform, composed of two circular wooden boards of which the upper main one has a diameter of 2 metres and a thickness of 10 cm (in the small size). It is used externally as a steating for users while inside contains the entire product system functions. The lower circular board, which has a slightly smaller diameter of 1.8 metres and a thickness of 20 cm, mainly plays a supporting role. It lifts up the the upper board so that the entire product will float on the ground and reach a total height of 30 cm, allowing users to step over easily.
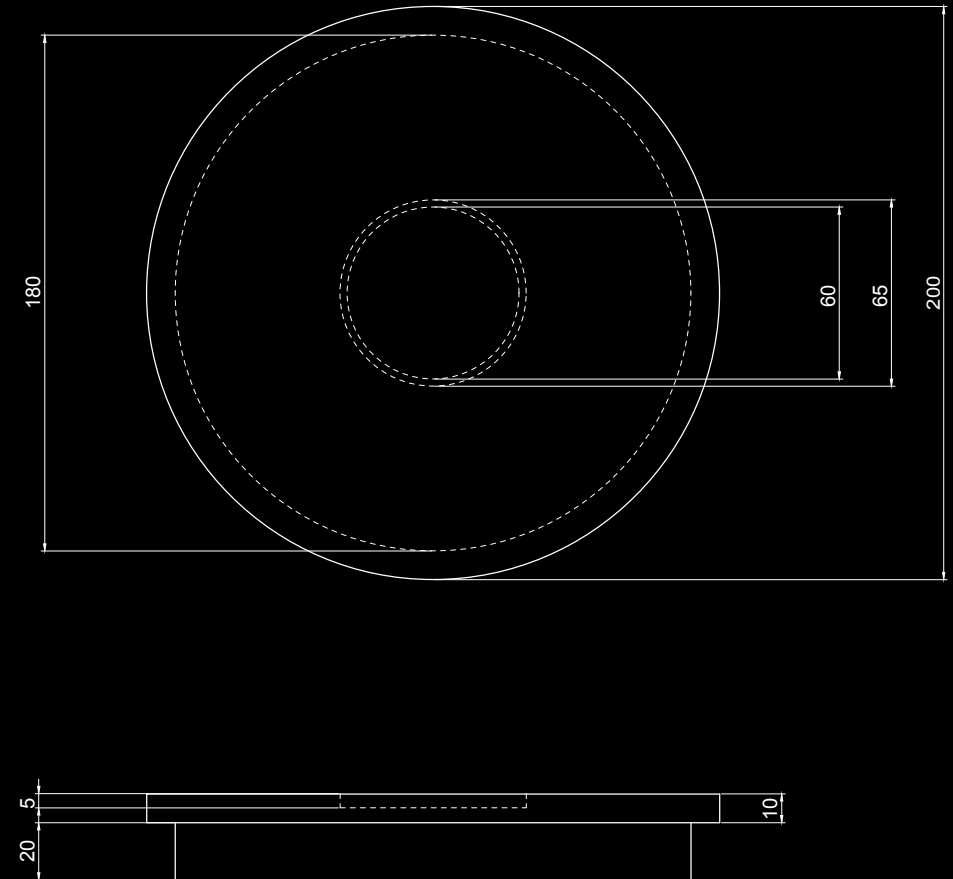
How it's done

1. **COVER PANEL:**
   Thin layer of shear that acts as a homogeneous cover of the internal components of the platform.

2. **COMPONENTS:**
   LED matrix that produces a light ring, environmental microphones that record the conversation, electronic components for internet connection and AI technology for the analysis and evaluation of the session.
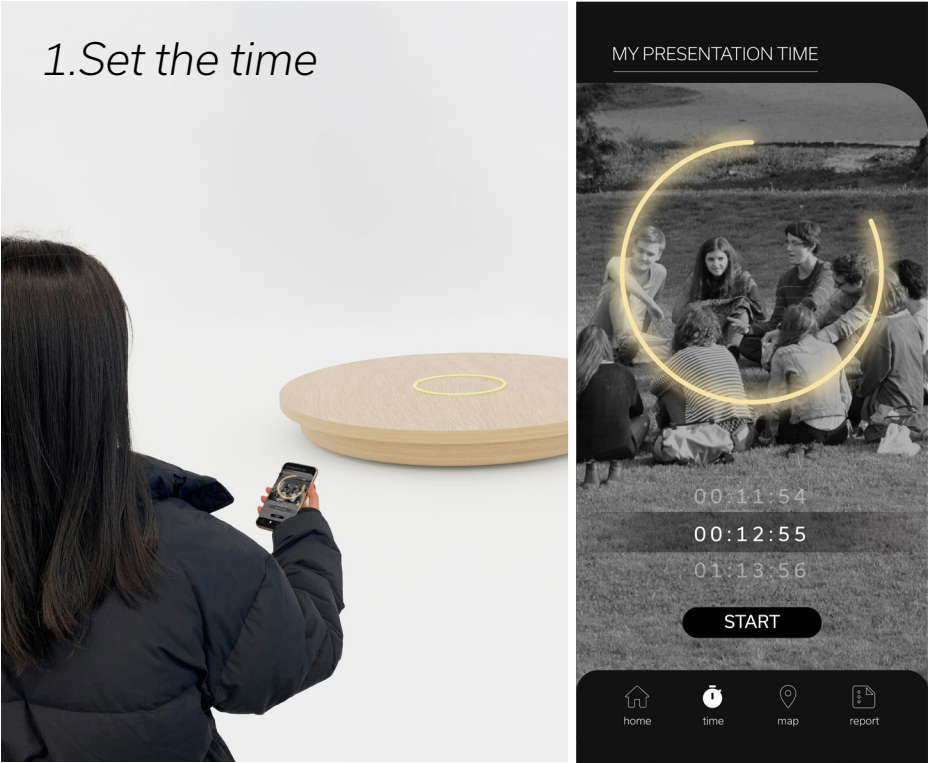
3. **UPPER BOARD:**
   Circular plywood board, where the componets are stored, that bears the weight of the users by acting as a seats.

4. **BOTTOM BOARD:**
   Circular plywood board that plays a supporting and lifting up role from the ground of the platform.

1.Set the time

MY PRESENTATION TIME

00:11:54
00:12:55
01:13:56

START

home   time   map   report

2.Present

3.Discuss

4.Get your evaluation

MY REPORT

Overall feedback on group report

Meeting length   word you repeated the most
1h17m   and You know
                     sorry... ok   Agree

Feeling map   YOURSELF
                                 GROUP

HAPPY
PEACE   ANXIOUS
EXCITED   OTHERS
CURIOUS   NERVOUS
PRIDE

More information about your presentation

Voice   Structure   Time management

Rhythm   Confidence   Activity

home   time   map   report

Light transition

1. As soon as the user steps on it will switch on with a small point of light in the middle

2. The user sets up the time he need to be counted, connecting his mobile phone with TOK-O

3. The light will progressively expand with a bright shade from the center outwards

4. When it reaches the maximum expansion and brightness the session will start

5. The circle of light will progressively diminish in clockwise, tracking the passage of time

6. When the hole circle of light is complete, the time for the presentation is finished

7. A point of light will then indicate the start of the discussion phase

8. At the end the platform will sent to the user a personal report and will switch off utill the next session

THE SERVICE

Aim and target

The service system, associated with TOK-O, allows the creation of a network of people within an educational and professional environment.

One of the main goals of TOK is to put in contact, throughout a moment of fun and sharing, university students and professors, promoting and exchanging knowledge at 360 degrees. The aim persued in this product service system is that, in the educational and professional environment, anyone can teach something about any topic, no matter if it is complex of informative.

The ultimate goal of TOK is to give the future society a new method of learning that involves the interaction and relationship between human beings, who, increasingly wise, will be able to share and pass on their knowledge.

TOK works to build tomorrow's society...
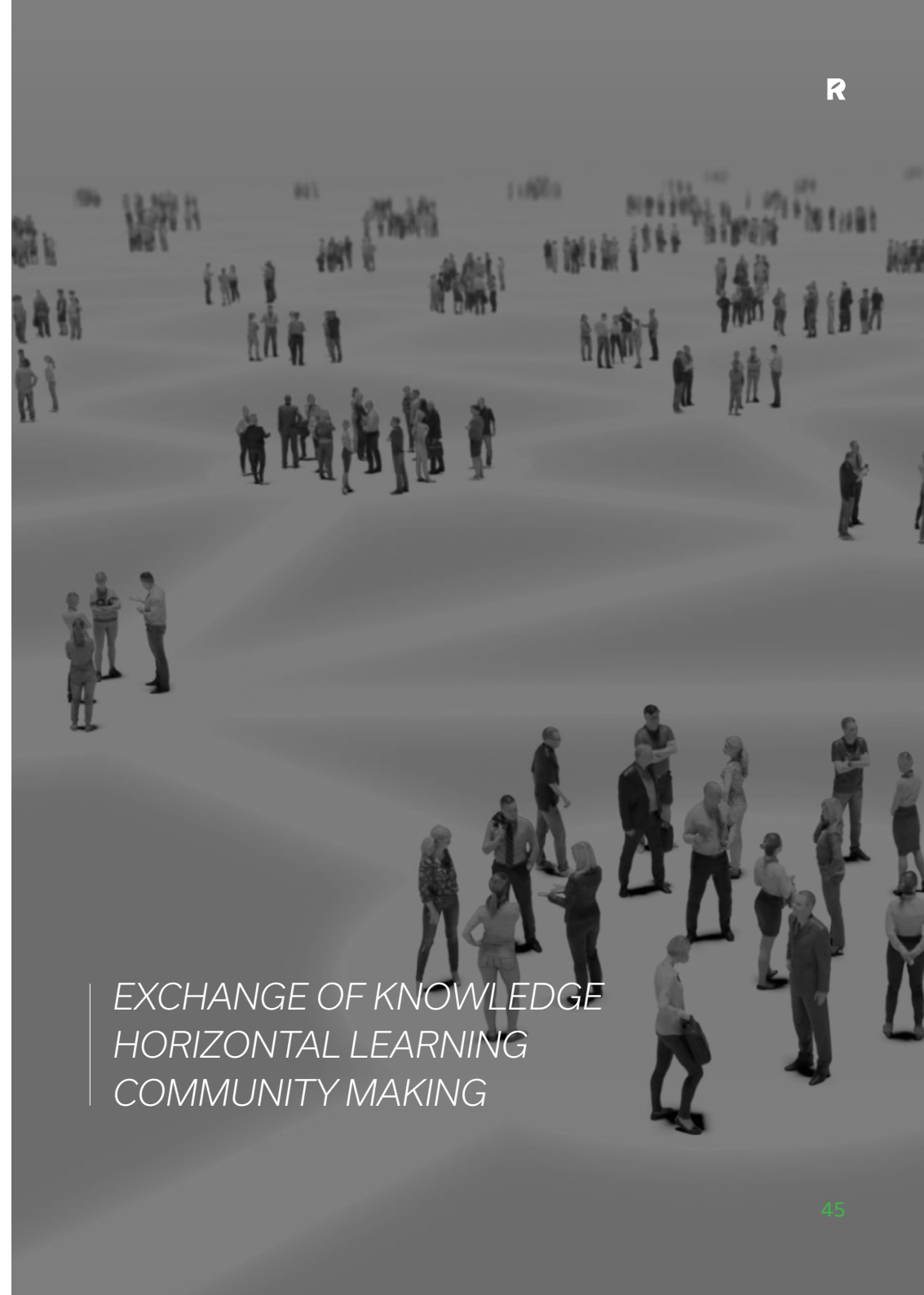
EXCHANGE OF KNOWLEDGE
HORIZONTAL LEARNING
COMMUNITY MAKING

R

TOK ^{IN}
learning fest

A promotional event for launching TOK-O in the market

In order to show the potential of TOK and how it works, we have created a Student Festival in the city of Milan. All universities in Milan will take part in it, so students from all different backgrounds will be able to learn about many other diverse fields they are interested in.

Where?
Giardino Indro Montanelli, Milano

When?
8-12 June 2037 at sunset

How to participate?
If you want to play the role of a listener just go through TOK-app, explore the different topics and presentations that other students will prepare, and join the conversation. If you want to be a presenter, instead, think about what you want to teach to others, select a date and a TOK-O, and prepare your speech.

Who can participate?
Everybody that is part of a University in Milan is welcome to TOKin! Student, researcher, professor...

We are waiting for you

TOK^{IN}
learning fest

System map

TOK gives you the opportunity to rent the number of TOK-O platforms you need for an event, festival or any gathering of people. It is very simple! The wooden platforms will get delivered and installed by our team, and will be removed once the rental time expires. Easy, right?

The rental of TOK-O boards will be carried out by big organizations, such as universities or large companies

through the TOK website. They will be responsible for choosing the location of the TOKin event, managing the local bureaucracy, and will be supported by TOK in the organization and preparation of the event. Local students, teachers and researchers will then have the possibility to participate at the event by registering on the application.

50   51

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Product
Stakeholders ●
Tools ○
Actions ●

Give a speech
Have a seat
Discuss

Book a platform TOK
See the map for reaching the spot
Set the time for the presentation
View personal report
See other conversations to join

ONLINE LISTENER

SPEAKER

See the scheduled conversations
Join the speeches
Like a future conversation
Receive a reminder
Listen to past sessions

TOKin APP

TOK-O

Have a seat
Listen
Discuss

LISTENER

The TOKin app will be offered to the users in order to facilitate the interaction with TOKin service and TOK-O platforms.

The event sees the interaction of three different types of users: speakers, listeners and online listeners. The members of the first category are those who want to get involved and improve their time management skill, giving a presentation on a theme of their choice, in which they are experts. The spekers, therefore, will use the application to book a TOK-O and, once reached thanks to the map visualization, to connect with it and set the time for their speech. The listeners instead are those who will participate physically in the different

conversations after the presentations of the speakers. They will use the application to see updated timelines and calendars, to register for the talks and to reach the respective TOK-O. At the end both speakers and listeners will receive a personalized report on their application that analyzes the progress of their performance during the entire session.

The platforms will broadcast live the different conversations, thus giving the possibility to online listeners to follow the knowledge exchange sessions from anywhere in the world. The platform will give them the opportunity to listen to the past ones too.

See the map for reaching the spot
Receive a reminder
View personal report
Listen to past sessions

Stakeholders map

Regarding the stakeholders involved in the service, there are many components interconnected from diverse fields and contexts. The relationship between them is complex, and to understand better how the flow is and the different correlations, a stakeholder map shows the diverse groups you can find in TOK.

The clients that are in the first level of interaction with TOK are the Universities and similar educational organizations. The managers of the events will be in direct contact with the team. As a second phase, the real users will be the students and professors that actually will experience the service and use the product. A deeper exploration of the contact between the university organizer and a person from our staff is developed in the blueprint map,

as well as the backstage service we provide and the interactions that are developed on fronstage.

Furthermore, there are other essential groups of stakeholders: the marketing team is in charge of developing the communication content included in any advertisement channels, as well of contacting the sponsors for the events and potential partnerships. The on-site workers are one of the most important pieces in this puzzle, because they are the visible part of TOK and their job is crucial for a high performance service. In the background we can also find the bank and the credit card company, as another needed part of the company. Last, the producers of the product are also key to provide the users the expected experience with the best quality possible.
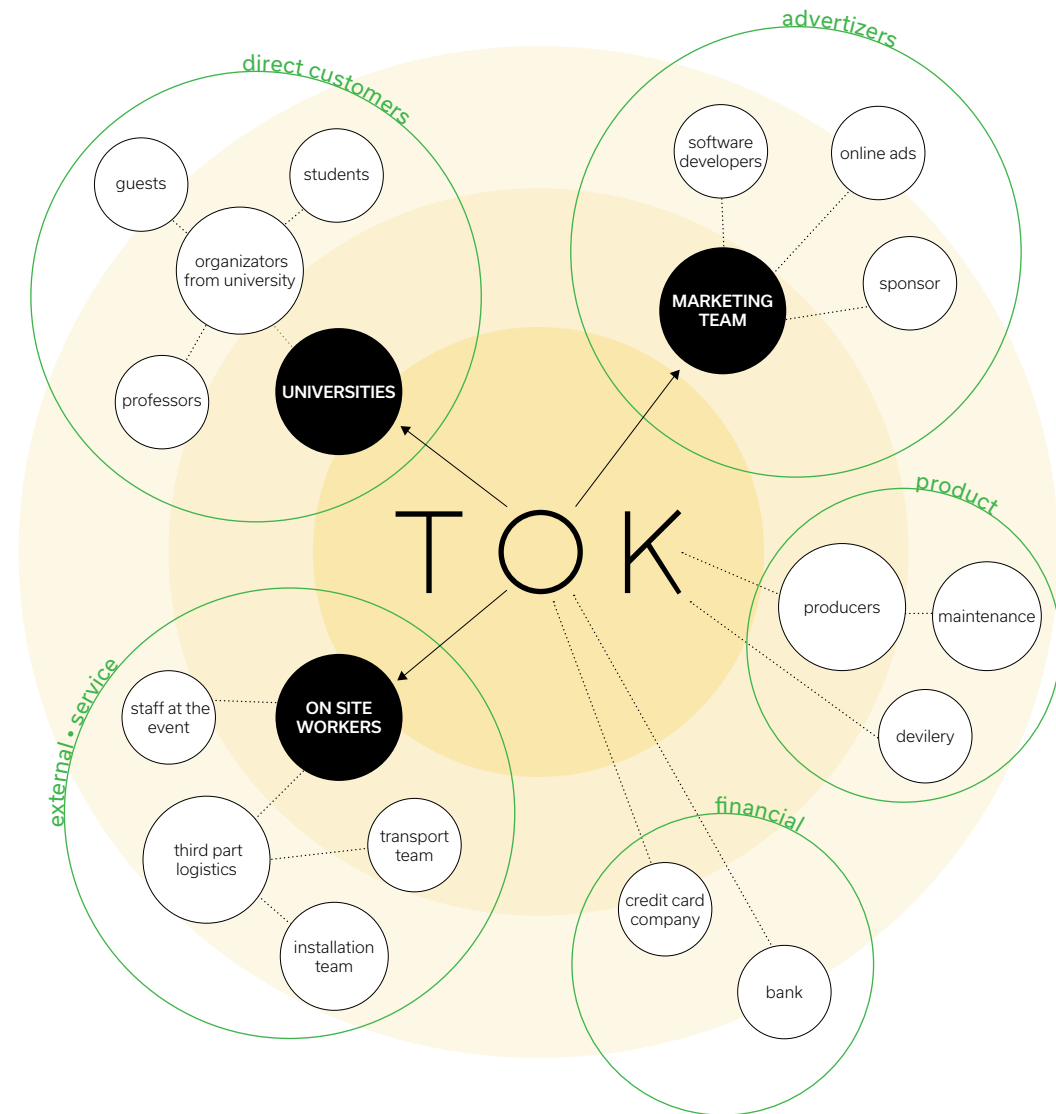
	PRE SERVICE						SERVICE			POST SERVICE	
Time	1 min	10/15 min	5/10 min	15/30 min	5 min	2/3 min		5 min	2-5 h	2 days and up	5 min	10 min
Touchpoints	TOK Website	Videos of the product, reviews, specifications	Online form	Phone call	Email (offer)	Confirmation Email		Phone call	TOK-O, Workers	TOK-O	Phone call	Email
Customer journey *(university staff)*	Search website	Explore the project and the mission of the product	Fill form requesting more information about the rental and some important details about the aim	Agree with the dates and the specifications of the rental	Read the document with the details of the rental	Accept the offer and pay		Confirm meeting time	Meet at the location for the installation	Carry out the event and enjoy	Confirmation	Give feedback to TOK
line of interaction												
Frontstage actions *(employees actions)*			Check availabilities for the dates selected and the inventory	Give a call to customer providing the information needed	Document preparation with all the details of rental			Call the customer to inform about estimated delivery time	Install the TOK-O boards	Partnership with the university for the organization and promotion of the event	Call the customer to inform about estimated uninstallation time	
(technology)	Welcome the user	Available chat online if questions need to be answered quickly				Automated response to the user to bring confirmation feedback						Automated Feedback email sent to customer
line of visibility												
Backstage actions			Inventory management system	Check distributor availability		Update the inventory and the distributor systems		Confirm the availability with the operations team			Confirm the availability with the operations team	Analyse feedback for future improvement
line of internal interaction												
Support process	Website analysis + SEO	Chat assistant service				Payment process		Third party logistics for delivery and installation		Continuative maintenance for the duration of the renting	Third party logistics for delivery and unistallation	

Hazan Burçak

23 YEARS OLD

ART STUDENT AT ACCADEMIA DI BRERA

ORIGIN: ISTANBUL (TURKEY)

BIO

Hazan is a motivated art student enrolled in a one-year long course in Milano in arts. Her background is very diverse: she studied a bachelors in biotechnology, and she also carried out some online courses in biomaterials and contemporary arts. She always thought creativity is key to solving problems and achieving the biggest challenges. Currently, she is working on her final thesis: it is about the exploration of recycled materials that come from discarded textiles. She, therefore, is learning a lot about sustainability applied in the field of arts and adapted with a proper communicative language in the project. It would be very helpful to start practicing the presentation before the final one.

DIMENSIONS

passive	active
introvertive	extrovertive
solitary	social
improvisator	organized

SCENARIO 2037; Milano

Hazan is a person that needs to be surrounded by people all the time; she loves socializing and meeting new people. Now that there is an excess of digital interactions, she feels more lonely than ever, so her psychologist encourages her to do as many social activities as she can, related with her hobbies, and try to enjoy being outdoors. She found out about this new Learning Fest that came out in Milano, so she thinks it's the perfect opportunity for her to meet new people, but also share her final thesis project that she has been working on for five months.

NEEDS

A social environment to meet people

Listeners that are willing to hear about her last project

An excuse to practice her presentation

A place to meet outdoors

WISHES

Build new friendships

Enjoy more time with friends

Improve her communication skills

Share what she learned in her final thesis

PAIN POINTS

Sometimes Hazan can be a bit passive and remain at home waiting for her friends to call her up

She needs to improve professional speeches in English

1. Hazan saw an AD on a poster in the street: TOKin Festival in Milano! What is that..?

2. She did some research at home. She decides to give it a try: it seems she can give a presentation about her final thesis. She might meet cool new people there!

3. Hazan starts preparing the presentation. She will talk for 15 minutes, showing some experiments with materials she did so the listeners will be able to touch them too.

4. She books a TOK-O through the app: it will be during the Festival days, so exciting!

5. The day arrived! She arrives at the Giardino Indro Montanelli and, using the map from the app, she gets redirected to her TOK-O . So convenient!

6. She sits down, updates through the app when she arrives, and waits 10 minutes for the listeners. She can see some people are joining streaming and will follow the speech online.

7. She starts the presentation using the time management tool. She can set it up easily through the app: 15'.

8. After her presentation, the 4 listeners that attended the presentation started a conversation with her, asking questions and debating about the topics. There are some questions online too!

9. At the end, the speaker and listeners can see the report of their exchange session on thier smartphone. It's very interesting to analyze what to improve for future presentations!

10. Hazan and other listeners decide to join a couple other conversations, since they find out there are many interesting ones that are about to start.

Hazan Burçak	PRE SERVICE								
	Awarness					**Selection**		**Preparation**	
Actions	Advertisement seen in a poster	Look up the website to know more about the event	Registration	Complete a profile		Select the date and a TOK-O. Inform about the topic of the presentation	Receive a confirmation notification of the date and TOK-O	Preparation of the presentation	Receive reminder the day prior
Touchpoints	📄	🖥️	🖥️	🖥️		🖥️	🖥️	🖥️📄	🖥️
Thoughts	"I should check that out"	"I would love to share my findings in textiles and biomaterials with other people!"	"This didn't take long at all"	"I will create my profile showing myself as I am"		"It's very nice they do this festival during the evening, so everybody is free by then"	"Good! It's happening!"	"I want to be clear and use my time wisely"	"Finally the day arrived!"
Emotions	curious	interested	involved	involved		intrested	excited / overwhelmed		engaged
Insights	Communication of the festival and the product must show the essence of the brand	Include in the website all the information regarding past events in different cities	Because it is an event linked with a university, the registration can be done using the student account	Students and teachers can decide which roler they want to assume during the conversation		Offer a map of the park with the different TOK-O boards locations can be helpful to the user to find the best way to go		It could be a good opportunity for the presenter to improve his/her communication skills	This reminder is very important and must be designed in a clear and simple way to prevent it from being unread
Opportunities	Use strong marketing tools to promote TOK through TOKI-IN	Create similar event spreas worldwide	Create a strong bond with big entities all over the world	Everyone can get the chance to explore different facets of himself		Develop an interactive map that will allow the user have detailed information about the event\		TOKin will offer some tricks and advice to develop a nice and efficient speech	Design an user-friendly reminder that contains the most important information about the event and the specific presentation of the user

Hazan Burçak

	SERVICE				Experience				Feedback	
	Arrival				**Experience**				**Feedback**	
Actions	Arrive at the location	Arrive at the TOK-O	Let the app know about arrival to TOK-O		Start the time management tool	Present to the listeners	Have a discussion at the end of the presentation with the listeners	Receive a report on the phone about the presentation	Read feedback from the listeners on the website	Share the experience it on TOKin social media
Touchpoints	🚐	📱	📱		📱	⃝	⃝	📱	📱	🖥️
Thoughts	*"I am excited and nervous at the same time"*	*"The map is helpful to be guided to the TOK-O"*	*"I hope the assistants don't take too long"*		*"Let's do it!"*	*"Everybody is very interested about the topic!"*	*"Such interesting points of view..."*	*"Cool! I have to improve a few things, but I did pretty good."*	*"Its great to see how they experienced it"*	*"Wow, so many students in Milan took part at the festival, I will come back tomorrow!*
Emotions	motivated	motivated	nervous		involved	motivated	motivated	excited	excited	nostalgic
Insights	A staff member will welcome all the partecipants giving them some TOK gadgets	The map will guide the user directly to the TOK-O he has booked	A notification will arrive to the listeners that are interested on the conversation		The app will give the possibility to have a personalized time as well as a defaul one for the speach	The speake is welcome to stand while the listeners are seated	People following the conversation online can ask questions that will pop up on the speakers device	The report can be saved in their smartphones and easily shared. The option of sharing the data with the University will be given, for future analysys		
Opportunities	Develop a navigator in the app that helps users to arrive to the location		Make a playful and engaging notification for the listeners		Make the wireless connection with the TOK-O easy and quick		It should be a smooth system that can facilitate the people following the conversation online to participate easily	Improve future services-product will the data collected from the presentations	Create a network of people online worldwide. Close the distances	Create a network of people online worldwide. Close the distances

Alessandro Serafini

55 YEARS OLD

COORDINATOR OF EVENTS AND PROFESSOR AT THE SCHOOL OF MANAGEMENT IN POLITECNICO DI MILANO

ORIGIN: TORINO (ITALY)

BIO

Alessandro is passionate about intercultural exchange, and learning from other traditions and civilizations. After 21 years working in 5 different countries, he decided to come back to Italy and start working at Politecnico di Milano, the school where he started his path. Now he is active in the development of events and activities for students at Politecnico, but also in some other NGOs collaborating with children and young immigrants. He doesn't have children, so he enjoys spending his free time surrounded by younger generations and helping them learn and grow.
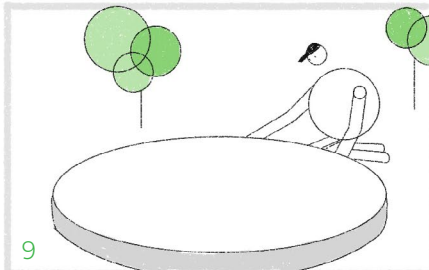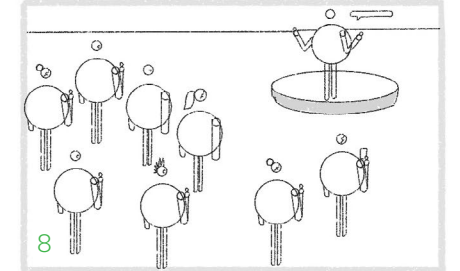
DIMENSIONS

passive	active
introvertive	extrovertive
solitary	social
improvisator	organized

SCENARIO 2037; Milano

Alessandro is a person that has been active his whole life, very good at dealing with setbacks and creative solutions. He is currently working on a new initiative to offer new students at Politecnico the opportunity to meet each other and create bonds from day one. He just saw on the internet these cool rental wooden platforms named TOK-O that work as meeting points, helping the students to interact in a friendly and relaxed way. On behalf of Politecnico as head of events, he can prepare very interesting activities to break the ice!

NEEDS

New and fresh ideas to catch the students eye

A space to carry out the events

WISHES

Extend a larger academic network for the students

Help younger people to become great adults

PAIN POINTS

He feels frustrated when people dont trust on his plans

He would love to have 48h in a day, so many things to do and so little time!
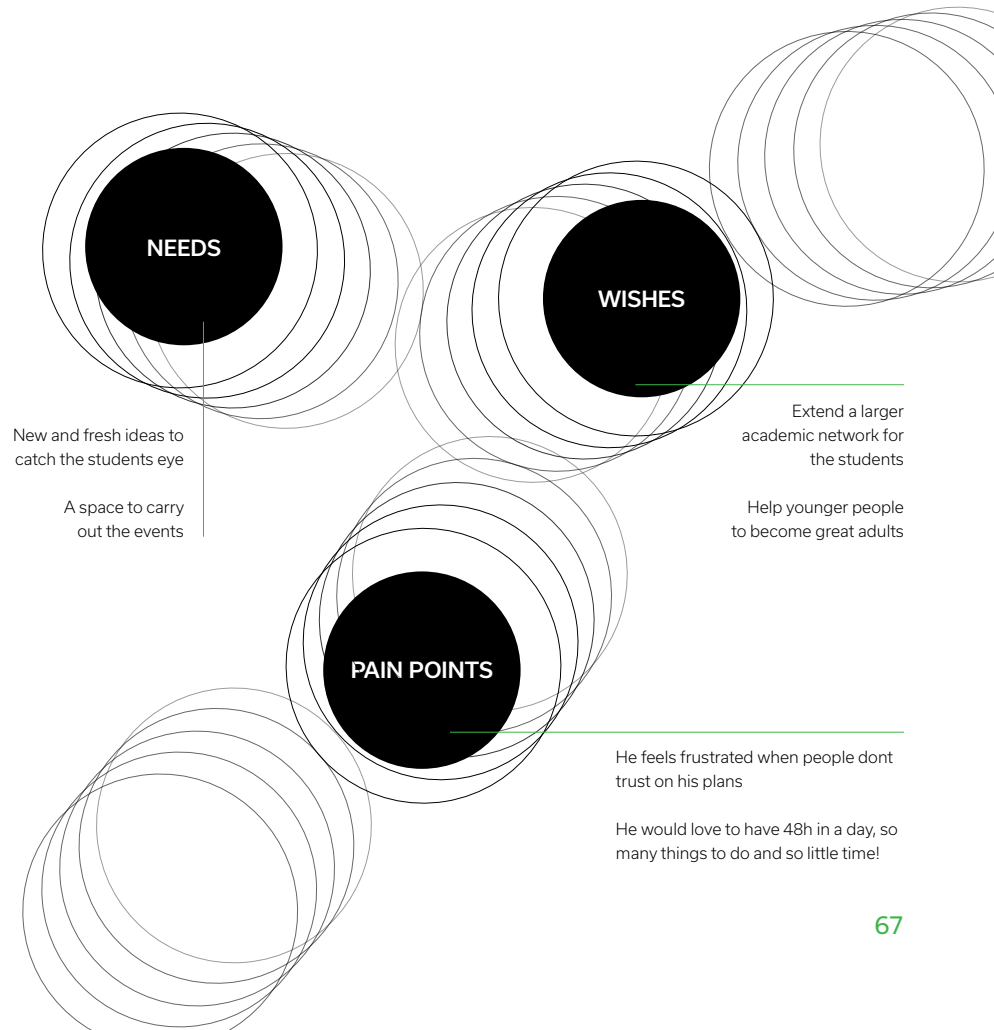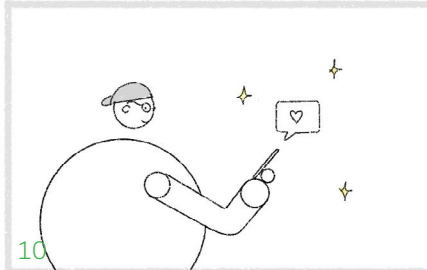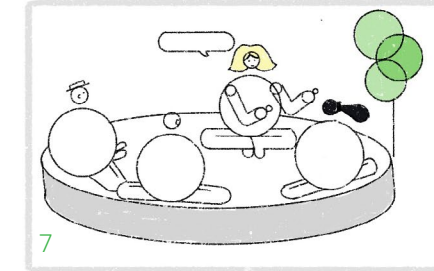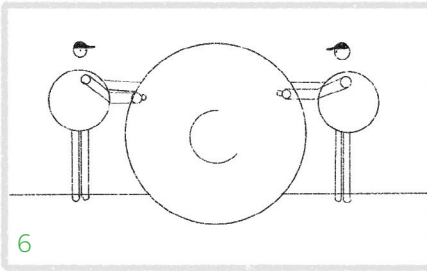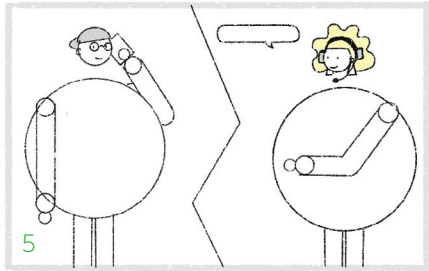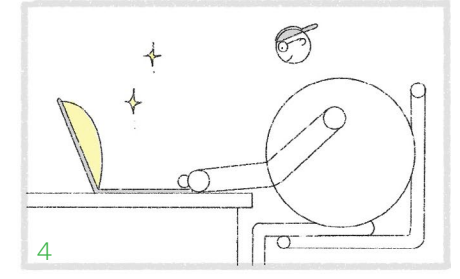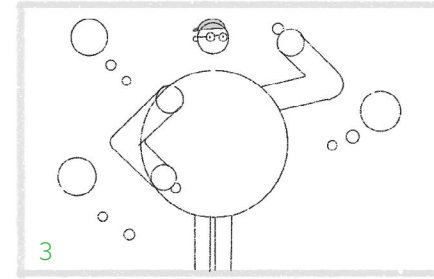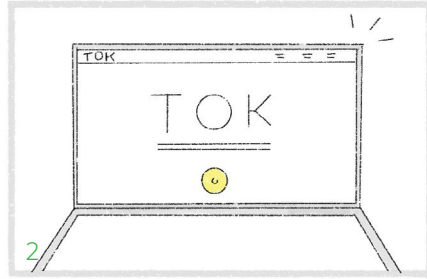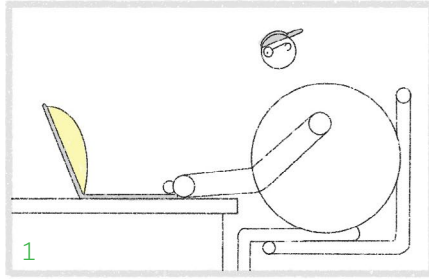
1. Alessandro is exploring where to carry out an event centered on freshmen students at Politecnico di Milano. He wants to offer a dynamic activity where they can talk and get to know each other, if possible, outdoors.

2. He finds out about TOK, a rental installation system that is composed of wooden platforms that can be placed anywhere, and they are designed to have outdoor conversation. Perfect!

3. So many ideas start coming to his mind, so the students will enjoy this event and start their lives at university in an exciting way.

4. He fills an online form at TOK website, with the details for the rental and from the school. They will contact him in less than 24h.

5. In one hour, he receives a call, it's one of the TOK members! They confirm all the specifications and clarify the conditions and the steps of the rental.

6. One day prior the event starts, TOK sends a team to the location Alessandro decided for the event to install the platforms. They were very efficient, all finished in 4 hours.

7. The students enjoy the event! They go from TOK-O to TOK-O exploring the different topics prepared by some of them, and having conversations to get to know each other.

8. Also the head coordinators of the bachelors can talk with the students about their future at the university.

9. After the event, the TOK team comes back and removes the installation.

10. Alessandro is very happy with the output of the event. The students loved it, and he might rent it for future festivals. He shares some photos on social media and gives constructive feedback to the company.

Alessandro Serafini	PRE SERVICE					
	Awarness	Contact	Confirmation	Preparation		Installation
Actions	Finding TOK searching online	Fill a form online at TOK website	Receive a call from TOK to finalise details	Preparation of the event and development of the communication		Installation of the wooden platforms by members of the TOK team
Touchpoints	🖥	🖥	📱	🖥		📱
Thoughts	*"This could be a great option for the freshmen students event I am working on"*	*"The information they ask is accurate and didn't take very long to fill"*	*"It was useful to directly talk with one of the members of the company"*	*"I want to offer the greatest experience for the students"*		*"They call me to be there in person and double check everything is how I wanted it to be"*
Emotions	interested	involved	relieved	involved		involved
Insights	The website is designed for attract big organization as universities	If the client has some questions, we should be there to help him	Having a tailored and personalized experience is good to create a stronger bond with the user	TOK staff members working with local universities organizers as a partnership		Being fast and efficient is key to show reliability to the customer
Opportunities	Spread the TOK future new way of learning all over the world	Hand instant assistance if needed	Depending on the event the customer needs the service for, a member from TOK will personally talk offering the advice needed to make all the decisions and resolve all doubts	Universities organizers know better about the right location and borocracy to deal with		Having a trustworthy third logistic team will avoid problems and improve the user experience

Alessandro Serafini	SERVICE					POST SERVICE		
	Arrival	Experience				Uninstallation	Feedback	
Actions	Arrival of the students and inform them about the activities in the agenda	Participation in the different conversations, each at one TOK-O	Speech from the university Dean and some of the head coordinators of the bachelor's degree		Usage of TOK-O after the event, as espontaneous conversation spots where people can sit and talk	TOK team came the day after the event to remove the platforms	Leave a constructive feedback they sent to Alessandro's mail	Post on social media about the event and the activities that took place
Touchpoints	📍	⭕	⭕		⭕	📍	🖥️	📱
Thoughts	*"I love they are all so excited to be part of this event!"*	*"They are talking and following the schedule and map I developed, it's great"*	*"I am glad we prepared one TOK-O to give speeches, that works also as a meeting point"*		*"They have so many interesting things to share, I am glad I could participate too and conversate with them"*	*"It's an efficient and friendly team"*	*"I will for sure use TOK again, they did a great job and it is an interesting way to conversate and offer gatherings to people"*	*"PoliMi is proud to show how interesting the new students are and their excitement about starting their degrees"*
Emotions	excited	happy	proud		accomplished	content	happy	proud
Insights		Professors find themselves in the opposite situation they uesd to have	It's an important moment for bonding with the students, shortening the distances		Not talk over others is the crucial learning in this phase	The fact that the user doesn't have to worry about the installation / removal of the boards is crucial		Expand a network through other universities in the world in social media
Opportunities	Create a moment to get students know each others before the starting of the event	Professors can have the chance to learn from their students	Can be used to keep students informed about important matters of the university			Facilitate the communication between the workers and the customer		Find new organizations and schools willing to rent TOK

COMMUNICATION

Naming

The name TOK is a wordplay on the pronunciation of the English word "talk". It's a short, memorable name that can be immediately connected to the action of talking and sharing knowledge. Additionally, it's also rooted in the materiality of the products, as it's the sound that one can hear when knocking on wood.

TOK is the name of the brand. The developed product is the TOK-O board, with the O representing the circular form the device was based on, with both its physical shape and the lights. Finally, TOKin is the name given to the programmed student festival organized by TOK. It expands on the "talk" paronomasia, changing it to "talking", to more strongly suggest the interaction between users that takes place in the festival.

BRAND

/tɔːk/ ⟶ talk

/tɔːk/ ⟶ TOK

SERVICE

/tɔːkɪŋ/ ⟶ talking

/tɔːkɪŋ/ ⟶ TOKin

PRODUCT

TOK + O = TOK-O

shape and light
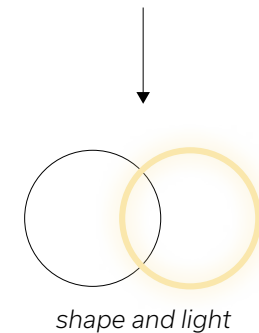
Vision

We want to create a world where knowledge is freely shared between people without limits and obstacles.

Brand statement

TOK aims to offer a horizontal learning experience to those in higher education who want to learn something stimulating as well as share their own knowledge to improve themselves and others. Our solutions provide people a platform to speak and debate together about interesting topics, encouraging everyone to learn and teach, giving a feeling of growth, accomplishment, and helpfulness to the users.

Mission

To give a platform to all who possess knowledge to share it with anyone, equally and reciprocally, encouraging spontaneous conversations where everyone can teach something, and everyone can learn something.

Brand essence

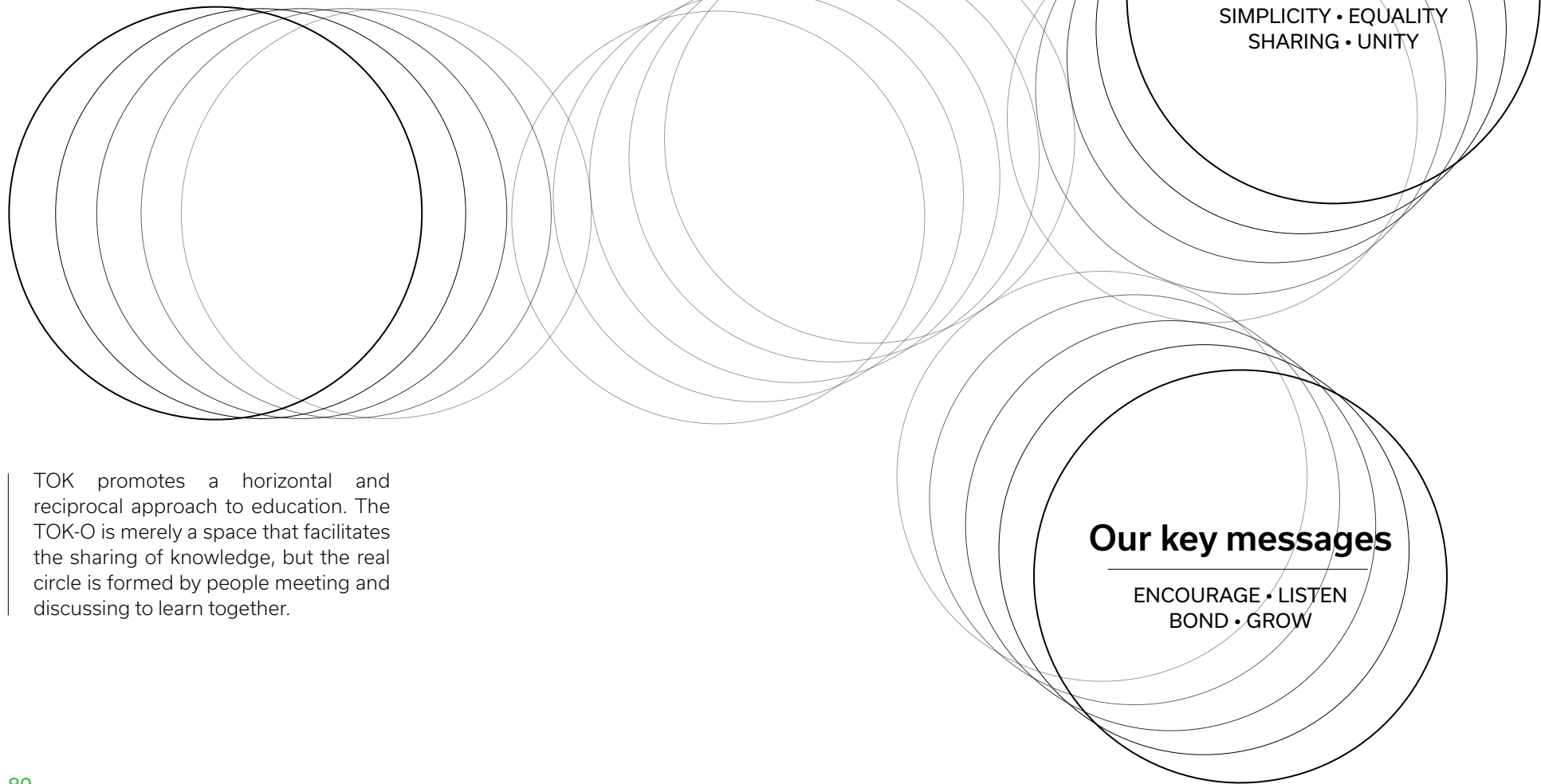# *The circle of knowledge*

TOK promotes a horizontal and reciprocal approach to education. The TOK-O is merely a space that facilitates the sharing of knowledge, but the real circle is formed by people meeting and discussing to learn together.

Our core values

SIMPLICITY • EQUALITY
SHARING • UNITY

Our key messages

ENCOURAGE • LISTEN
BOND • GROW

ESSENTIAL
NEUTRAL
FACILITATING
INCLUSIVE

Personality and tone of voice

TOK's tone of voice is essential and neutral: TOK is a facilitator in the sharing of knowledge, and as such it's important in its communication that it doesn't talk over the users, what's being shared, and the topic at hand.
Even so, the approach taken is welcoming and inclusive, to encourage people to break out of their shells, especially when approaching horizontal education for the first time. In this, TOK presents itself as an open, safe space where it's possible to freely share one's opinions and expertises.

Moodboard

R

Logo

The TOK logotype is simple, light, and straight to the point. It's based on the Usual typeface with some adjustments: the default O is replaced by a perfectly circular one, reflecting the idea of the circle of knowledge, and the character spacing is exaggerated to give a feeling of lightness and openness.

The TOK-O and TOKin logotypes expand on the brand logotype, creating a system with close and strong relationships between all the elements.

TOK
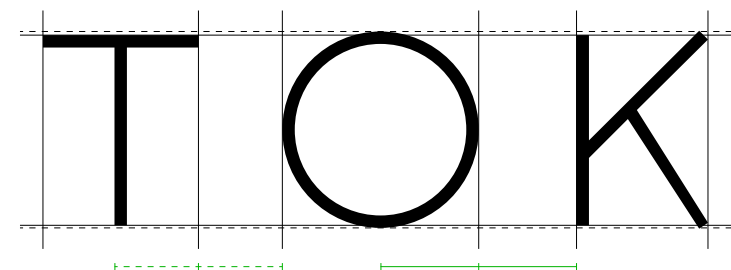
TOK

TOK-O

TOK IN

learning fest

Graphic elements

As a system, TOK's visual identity is designed to be first and foremost simple, elegant, and neutral.

The visual identity is based on minimalistic elements. The employed shapes are exclusively lines and circles. The lines are characterized by a very thin, black stroke. The same stroke is applied to circular outlines composed one over the other in an abstract fashion, to give a sense of movement.

The other main element is light: graphically, this is rendered through a circle with a thicker, pale yellow stroke, accompanied by a faint glow (representing the presentation phase of TOK-O's UI, with its radially disappearing ring), or through concentric circles of opacities increasing towards the center.

ESSENTIAL
ELEGANT
NEUTRAL

R
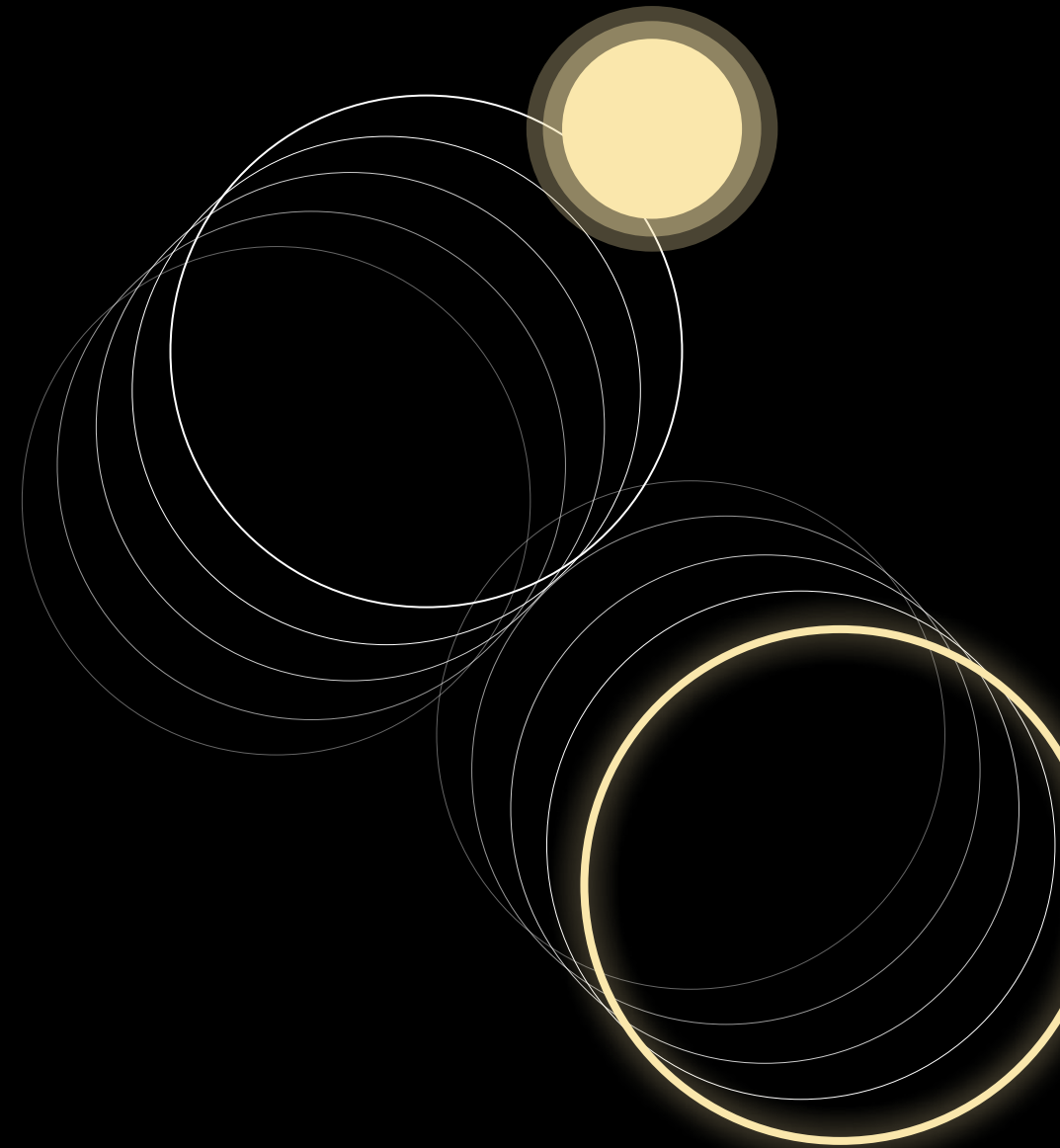
Palette

The palette is cut to a few essential colors. In most of the communication, white is the protagonist, with black as a secondary color.
A pale yellow (hex #fdebb2) is used at different opacities and is reminiscent of TOK-O's wooden screen interface, giving also a certain sense of "stimulating calmness" that is at the base of TOK-O's user experience (rational and calm discussions between people to share their points of view).
Finally, the accent color is a bright green (hex #3fab37), used sparingly in the communication and mostly to highlight small, but important details. The green comes from the outdoors environments, especially parks, where TOK-O boards are installed and the TOKIN events take place.

WHITE:
Hex #ffffff
Rgb : 0,0,0
Cmyk : 0,0,0,0

BLACK:
Hex #000000
Rgb : 0,0,0
Cmyk : 0,0,0,0

Typeface

TOK's typeface is Rui Abreu's Usual, a modern and neutral sans-serif featuring rigorous proportions and rhythm. Usual offers a variety of weights and alternative letter styles: TOK uses light, regular and medium weights, and alternative styles for the letters a, k, K, and l to improve readability.
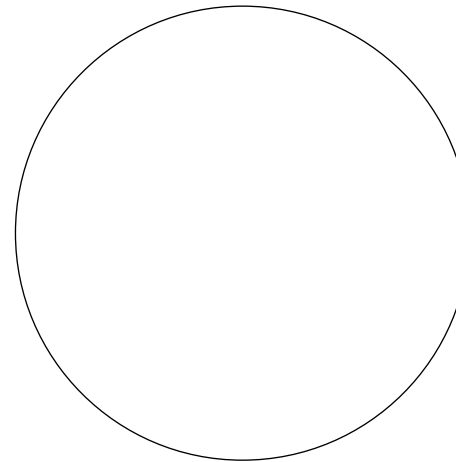
Usual Light, 10 tracking
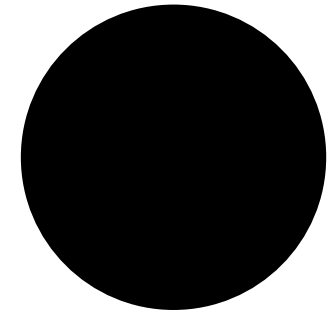
Usual Light Italic, 10 tracking

Usual Regular, 10 tracking

Usual Medium, 0 tracking

BRIGHT GREEN:
Hex #3fab37
Rgb : 63,171,55
Cmyk : 74,0,99,0

PALE YELLOW:
Hex #fdebb2
Rgb : 253,235,178
Cmyk : 2,7,38,0
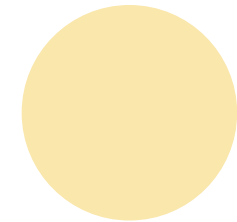
Photography

Photos give TOK's identity a touch of inspiration. Represented across the communication are photos of students in outdoor spaces, having conversations.

Photos featuring the product are in full, vivid color, valorizing the greens of the environment and the wood. Other photos are rendered in black and white, darkened and with a high contrast. Pictures are mostly presented in full page size, or in circular masks. Exceptions include cut-out images with no background, often used to showcase the product itself without other elements, or rectangular pictures that are used instead in storyboard-like elements (for example, showing how TOK-O works).

Colored photos

Featuring the product

B/W photos

For other contents

TOK Website

Our webpage is an important part of our product services design system; a platform where TOK comes in touch with universities and higher education organizations to propose its innovative vision. Through its customers can become aware of what TOK believes in and can offer, thanks to specific sections about the brand values and brand products. In particular, in the TOK-O section, customers will have the possibility to rent some of our products, getting in contact with our staff.
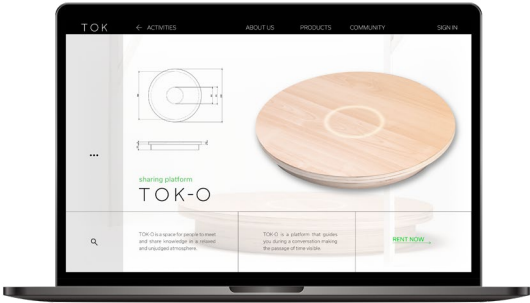
At the same time, the web is also a connecting platform for end users (like students and teachers) from all around the world to see closer how to use TOK products and events that were carried out in the past.

Website main page

Website TOK page

Website TOK-O page

TOKin app

The TOKin app is one of the key contacts with end users in our product services design system, focusing on guiding participants during each step of the TOKin event. Users, in fact, can view and join the latest and past exchange sessions in their home and book a TOK-O for their speech . As soon as a user has reached the location, it also provides a interactive map to be used during TOKin event for reaching different TOK-O. Through the TOKin app speakers can connect to any TOK-O, synchronizing the time for their speach, and select the mode they want to use (random discussion or guided discussion). After the sharing event, every user can receive a personalized feedback report in his report section that could be helpful for improving his skills the next time.
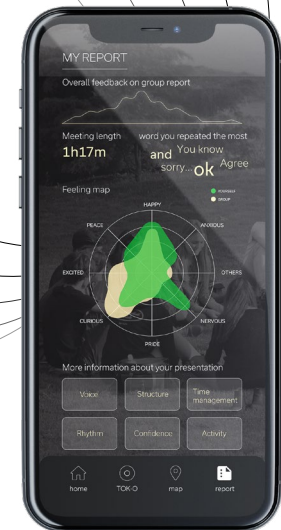

Selection mode

Time management tool
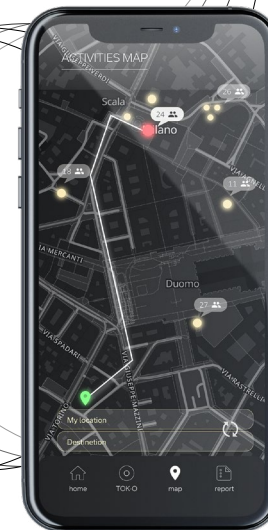
Map visualization

Personal report

ANNEXES

R

Electronics components

The technical support required for our products is mainly divided into light-emitting technology that can provide enough Illumination of the luminous ring and sound micro-microphones that can be set on site to record the conversation. The chosen solution for the under-panel display is a circular Micro-LED array.

Micro-LED is a self-emitting display technology (like OLED) using LEDs less than 50-100 microns in size, each becoming an individual red, green or blue sub-pixel. Micro-LED technology matches or exceeds OLED and LCD in almost every performance area. It has the image quality and form factor benefits of OLED without the robustness and lifetime issues. It exceeds LCD and OLED in terms of brightness and also has lower power consumption.

Considering the electronic components that contain the sound during the conversation, we temporarily choose the MEMS microphone, which is currently more mature in technology.

MEMS (microelectromechanical systems) microphones are micro-scale devices that provide high fidelity acoustic sensing and are small enough to be included in a tightly-integrated electronic product. It is no surprise that they can be found in smartphones and other consumer products such as smart speakers and headsets.

Nowadays, MEMS microphones are not only used to record plain ambient sound, but they support stereo capabilities, active noise cancellation, directivity (through beam forming), voice recognition and other capabilities. Today, in the era of artificial intelligence, we are seeing new MEMS design strategies that use innovative automated optimization techniques. Therefore, we believe that in the future, this technology will be updated to apply to our products with better work efficiency.

Light path

u-LED(<100um) frontplane

TFT
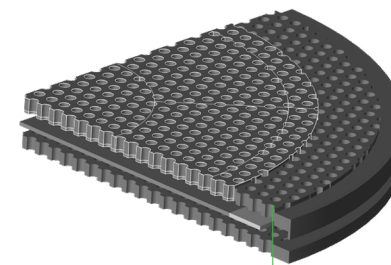
MEMS Microphone MEMS
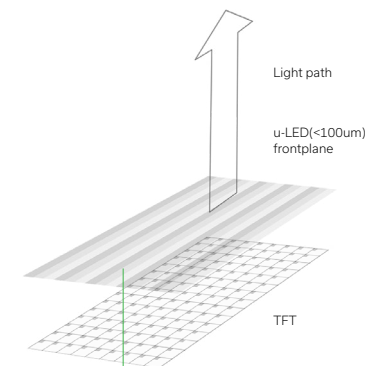
Micro-LED

Our process

The original idea has always been to create an intimate space to be placed in public spaces, so people can go there and exchange knowledge in a re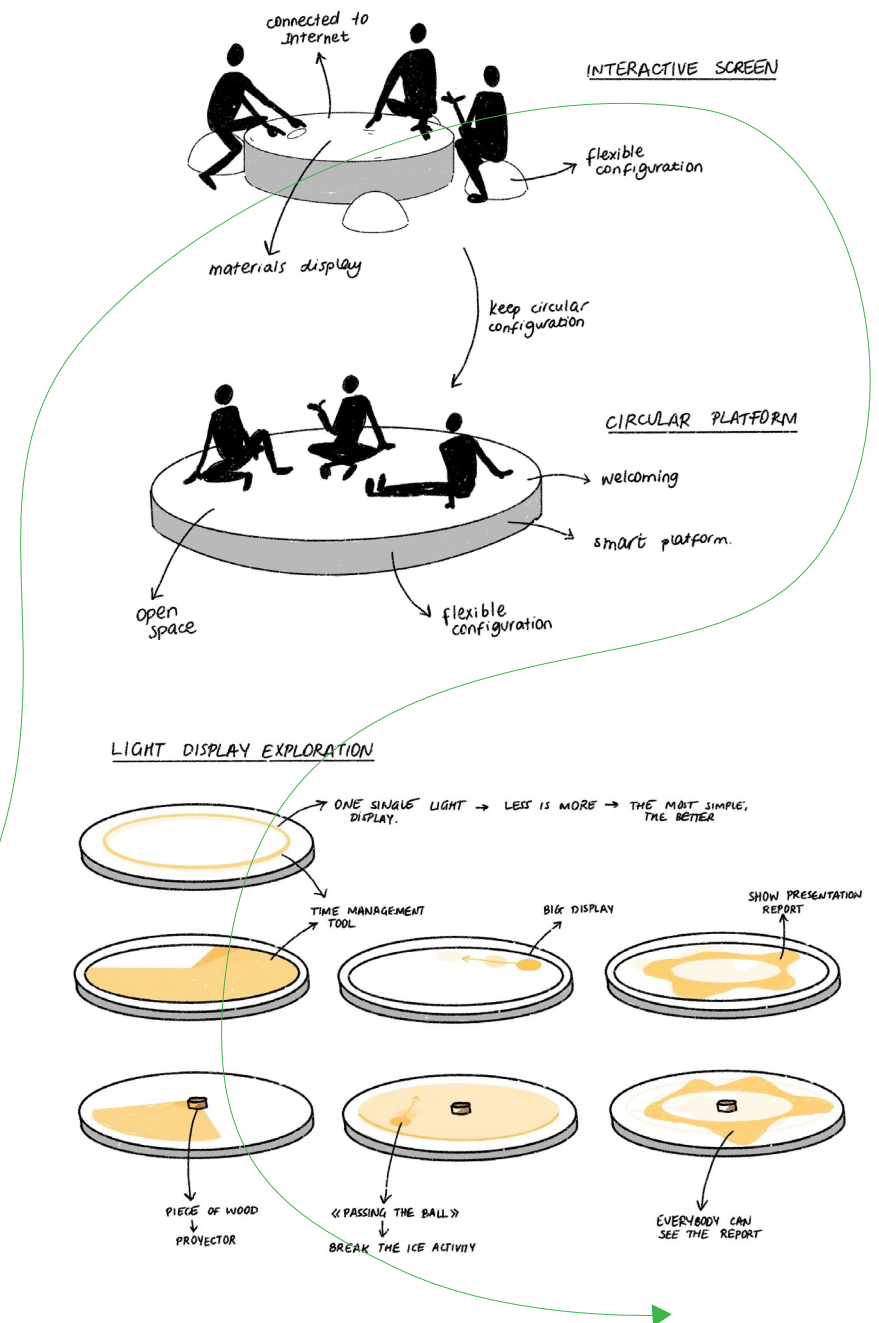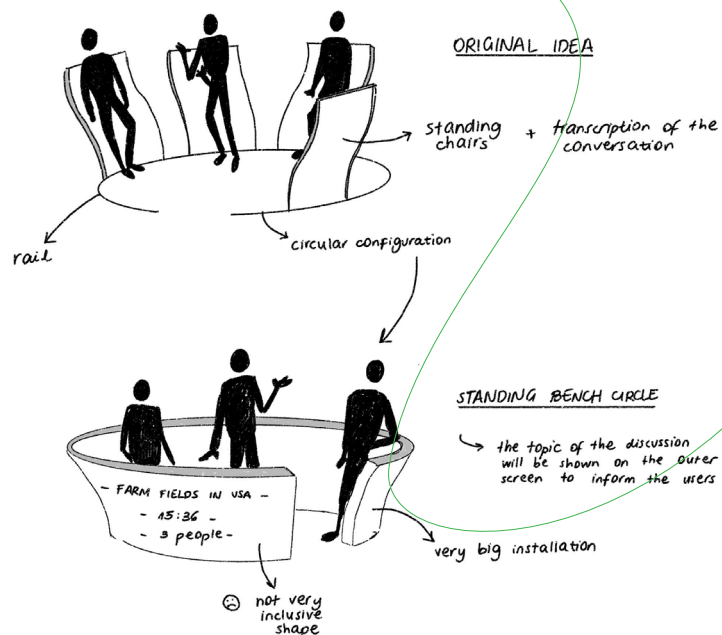laxed way. Moreover, the circular area has remained, because it follows the concept of equality where everybody is at the same level, and hierarchy disappears.

At first, we thought about standing chairs that can be moved through a rail, and also a circular closed bench where the topic of the conversations is shown on the outer surface. We concluded this idea to be not inclusive and welcoming for the users, so we moved to more open shapes.

connected to Internet

INTERACTIVE SCREEN

flexible configuration

materials display

keep circular configuration

CIRCULAR PLATFORM

welcoming

smart platform.

open space

flexible configuration

ORIGINAL IDEA

standing chairs + transcription of the conversation

rail

circular configuration

STANDING BENCH CIRCLE

the topic of the discussion will be shown on the outer screen to inform the users

— FARM FIELDS IN USA —
— 15:36 —
— 3 people —

very big installation

not very inclusive shape

LIGHT DISPLAY EXPLORATION

ONE SINGLE LIGHT → LESS IS MORE → THE MOST SIMPLE, DISPLAY. THE BETTER

TIME MANAGEMENT TOOL

BIG DISPLAY

SHOW PRESENTATION REPORT

PIECE OF WOOD PROYECTOR

« PASSING THE BALL » BREAK THE ICE ACTIVITY
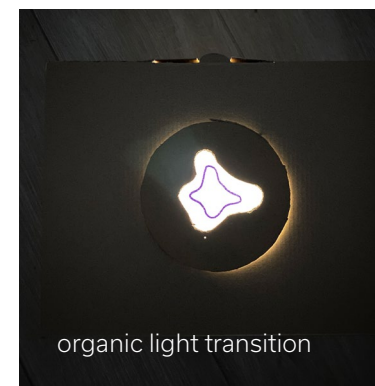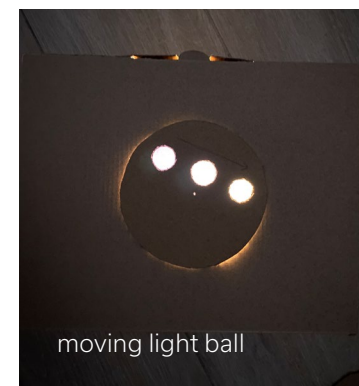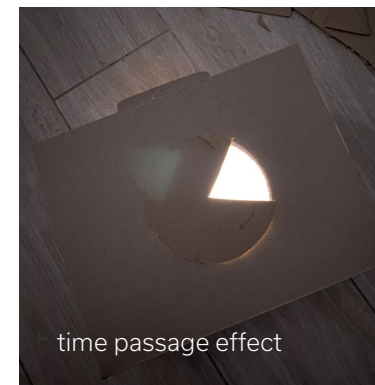
EVERYBODY CAN SEE THE REPORT

1. Studying proxemics

A physical exploration of the shapes was carried out, in order to find the most suitable size for the product, according to the studies by Edward Hall. People feel better staying at least 1,2 m away from an unknown person (social distance), while conversations and discussions with friends take place between 0,5 m and 1,2 m distance between people (personal distance).

0,6 m of diameter

0,7 m of diameter

0,9 m of diameter

1 m of diameter

2. First cardboard prototype

In order to understand better the effect the light will create on the wooden platform, we developed a fast prototype made out of cardboard. We used different transparencies of paper and the flashlight from our phones to explore the diverse experiences pursued.

phone flashlight

time passage effect

moving light ball

organic light transition

1:5 PROTOTYPE

0'8 cm

SLAB OF WOOD

DRAW CIRCLE + TANGENTS

SMOOTH IT
(SPINNING IT!)

HOLE FOR CABLE

20 cm.

GLUE THEM TOGETHER. → SMOOTH

MAKE HOLE FOR THE TABLET

PUT BOTH PARTS TOGETHER

3. Sketching

Having organized planning to build the final prototype helped us a lot to be efficient and avoid extra unexpected problems in the process. Because TOK-O is a 2-meter long wooden platform, we decided to have two different prototypes: one scaled (1:5) and another one with the original size (1:1).

The small prototype would have a light display inside that will allow the user to see the effect of the time management tool. A tablet will be placed inside the wood structure that will display an animation on the screen. Placing on top a thin layer of wood or any other material that simulates it, the light will pass through and it will create the effect of the wood getting illuminated. We need to take into account that the Ipad

will need to be connected to electricity and that the cable will require a space in the wood.

The large prototype that would own the real dimensions of the product can be done in two different ways; made out of wood, or be projected on the floor. For the first option, it is needed to put together the four portions of the circle, to create a 2m diameter one. Also, transporting it can be an issue due to its dimensions. For the second option, it would be needed to find a projector and create an animation that will show the light effect. This option is less disruptive because it can be turned off and no physical object will remain in place. It can be also very interactive with the users.
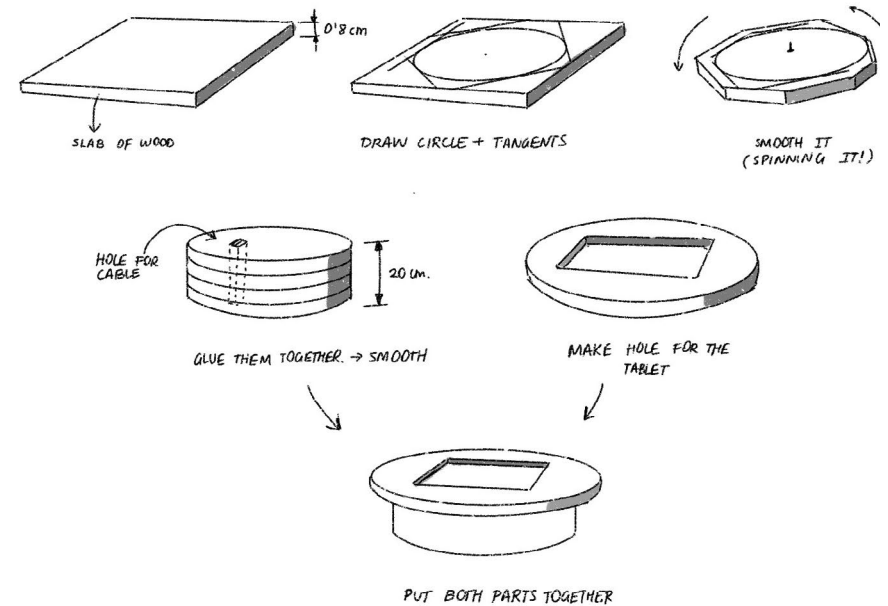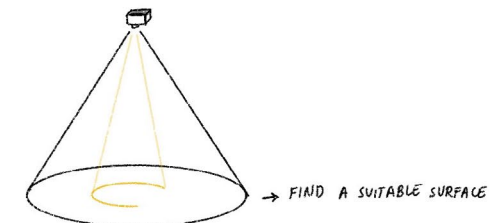
1:1 PROTOTYPE

A)   FOUR SEGMENTS ASSEMBLED WITH NAILS
     (FROM A PLYWOOD PANEL)

CUT PORTIONS + SMOOTH

CREATE HOOKS WITH NAILS
TO ASSEMBLE THE PORTIONS.
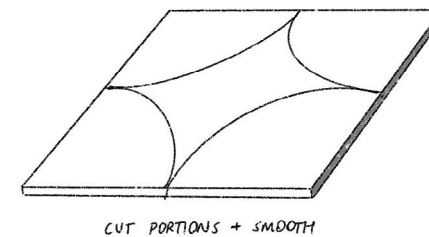
B) PROJECT 2m DIAMETER CIRCLE + LIGHT ANIMATION

→ FIND A SUITABLE SURFACE

4. Cutting plywood

Once we gathered all the materials to develop the prototype, the first step was working on the plywood to get the final shapes. After drawing the circles and its targent lines, they were cut with a wood saw machine and sanded to smooth the edges and get a soft and perfect cylinder. We made 2 larger cylinders for the top part and 5 smaller ones for the bottom.
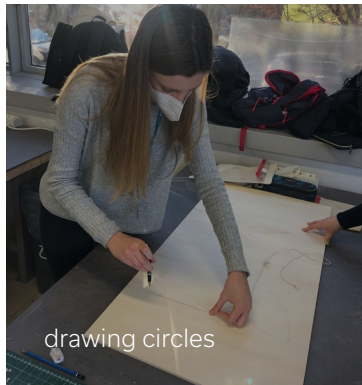
drawing circles

cutting the tangents

smoothing the edges

result

5. Material and form exploration

For the light effect in the prototype, it was needed to find a material which one of the main affordances is transparency, to let the light pass through. We explored several ones as well as several ways of displaying the animation on the tablet. We were lucky to find a film similar to the original plywood that worked perfectly with the experience that we were looking for.
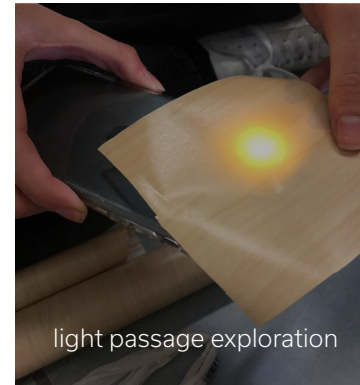
light passage exploration

light motion exploration
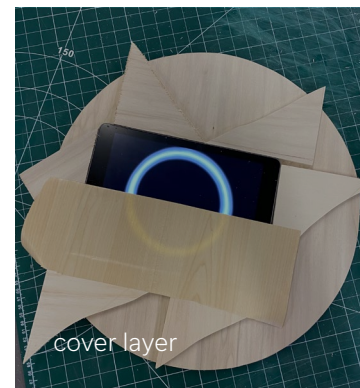
cover layer

different options

6. Electronics settings

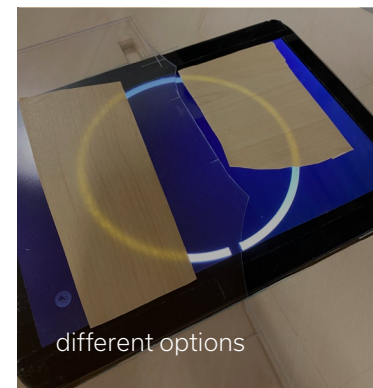On the cylinder on top where the tablet will be placed, we carved a hole with the exact shape of it. To bring electricity to the electronic device, we made holes in every cylinder to allow the cable to reach the one on the surface, and without being noticeable.
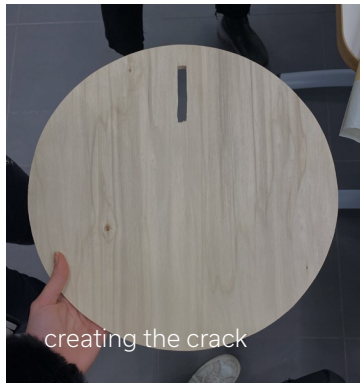
creating the crack

cable connection
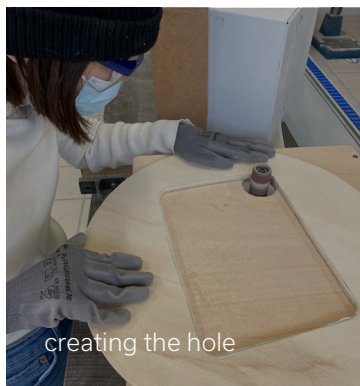
creating the hole

insert the tablet

7. Finalizing the prototype

In the end, all the cylinders of the same size were glued together. The two solid pieces were also taken to the sanding machine, to get a smooth and continuous surface. For the environment, we developed a minimalistic and simple model that gave the product a sense of context and dimension. Simplistic trees were made out of wood and painted in white.
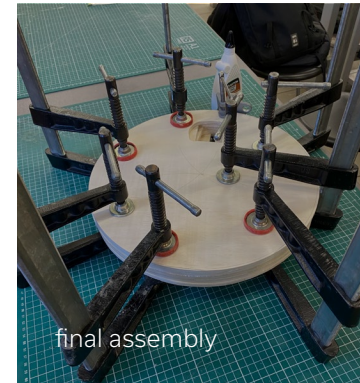
final assembly

environment creation
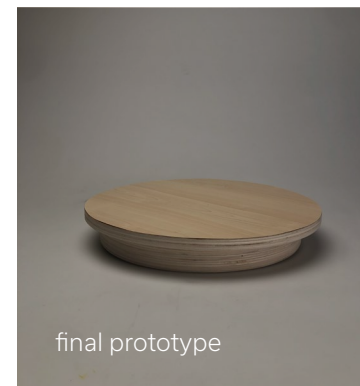
final prototype

photo shooting

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Natashah Hitti | 15 November 2019

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