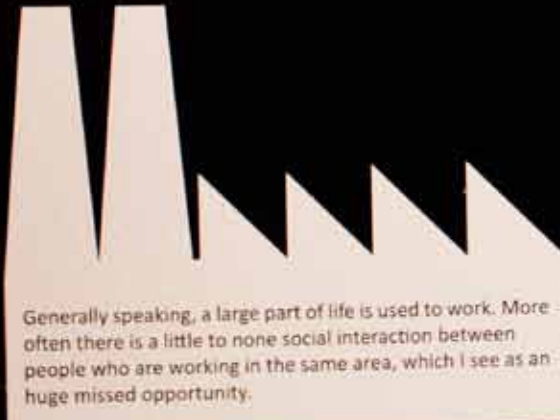


*how to stimulate
social interaction
within a working
area?*



Generally speaking, a large part of life is used to work. More often there is a little to none social interaction between people who are working in the same area, which I see as an huge missed opportunity.

This service is designed to offer the users a feeling of connectedness with each other and an included feeling within their environment. These feelings will lead to **more social interaction.**

final bachelor project

Semester B3.2

Student Joes Janmaat
S-number 108178

Project Design social interaction for public spaces
Coach dr. J. (Jun) Hu PDEng MEng
Theme Next Nature

Place Department of Industrial Design
University of Technology, Eindhoven

Date Januari 2014

'installation that stimulates social interaction'

This project has been done in order to design something for social interaction within a public space. Strijp T, a promising work area, is chosen as the public space to design for. Within the project the concept STRIJP-T-TOGETHER has been developed: an installation that stimulates social interaction between everyone who is working in 'the Yard' – which is one of the buildings of STRIJP- T. The installation consists of a mobile platform and a projection in the lobby of the building.

A customized service is designed as a consequence of the concept STRIJP-T-TOGETHER since the installation could be embedded in much more working areas.

This report will gain insights in the design process that has been accom-

plished, the decisions which have been made and the results of this project.

I was coached by dr. J. (Jun) Hu PDEng MEng, who supported me throughout the course of this project and has always provided me with constructive criticism and feedback.

V3RS, a design company, took part in this project as a stakeholder. Several meetings with a delegate of V3RS helped to focus on what is really needed, instead of what we, as designers, assume is needed.

Aside from that, I was able to involve other experts as well. All the experts can be found within 'References [p 44].

I would like to thank my coach and all the involved experts for their willingness to cooperate within this project.



IMG 1 | former PHILIPS building STRIJP T

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The official global design brief of the project is to design something for social interaction within a public space [appendix A]. To find a way to design a physical locus of interaction, a specific, physical device that opens the 'digital' action possibilities of a city to the physical. The focus within the project is on the lived experience and on meaningful and rich interaction.

A more specific and focused design challenge is formulated during the project. Statics of CBS [1] and OECD [2] shows that the average Dutchman spend 16% of his time on working for approximately 40 years. So, generally speaking a large part of life is used to work. More often there is a little to none social interaction between people who are working in the same area. Involving stakeholder V3RS [p17][3], a design company located at STRIJP T, ensured to approach the design brief from a specific context.

The challenge is to stimulate social interaction within STRIJP T [p14] by what the collaboration within and livability of the neighborhood should be

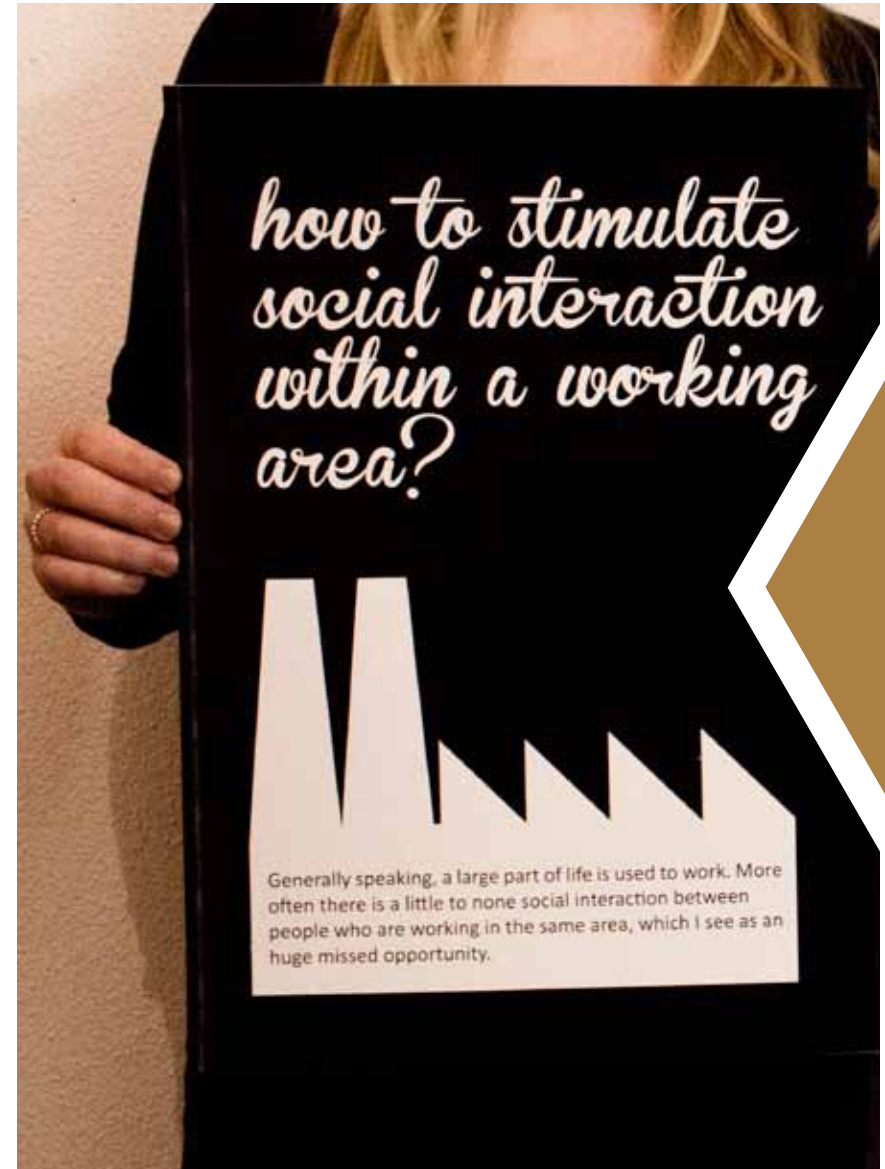
improved.

Collaboration can be seen as being part of a community; that we could be of value to the other and vice versa. To work together and make advantage of cross-fertilization [p16].

Improving the livability can be seen as improving the quality of life by focusing on STRIJP T's quality of living (working). Fundamental health and safety standards of living are achieved already, but those standards are not directly correlated with happiness, with a sense that life is meaningful, that we can contribute towards each other life. It is about contact, having interest, socializing, relaxation, connectedness. These are important aspects of improving the quality of life and could be influenced by the environment – by STRIJP T's livability. It should be worth working there [p16].

From this specific perspective a more generic design challenge is framed, since the developed specific concept could be embedded more generic as well.

'How to stimulate social interaction within a working area?'



IMG 2 | visualization design challenge

*'collaboration;
creating a result
greater than the
sum of its parts'*

84 % life

16 % work

Societal relevance is not an option but a necessity within this project. A design should be created from a specific need or desire of a user, that is why involving the user in the design process is crucial. User involvement ensures to focus on what is really needed, instead of what we, as designers, assume is needed.

More often there is a little to none social interaction between people who are working in the same area, which I see as an huge missed opportunity. In terms of well-being, but also on a more pragmatic perspective. I am impressed and inspired by collaboration; creating a result greater than the sum of its part. Even so, do not reinvent the wheel, but make use of the presence

of existing things and the presence and knowledge of others.

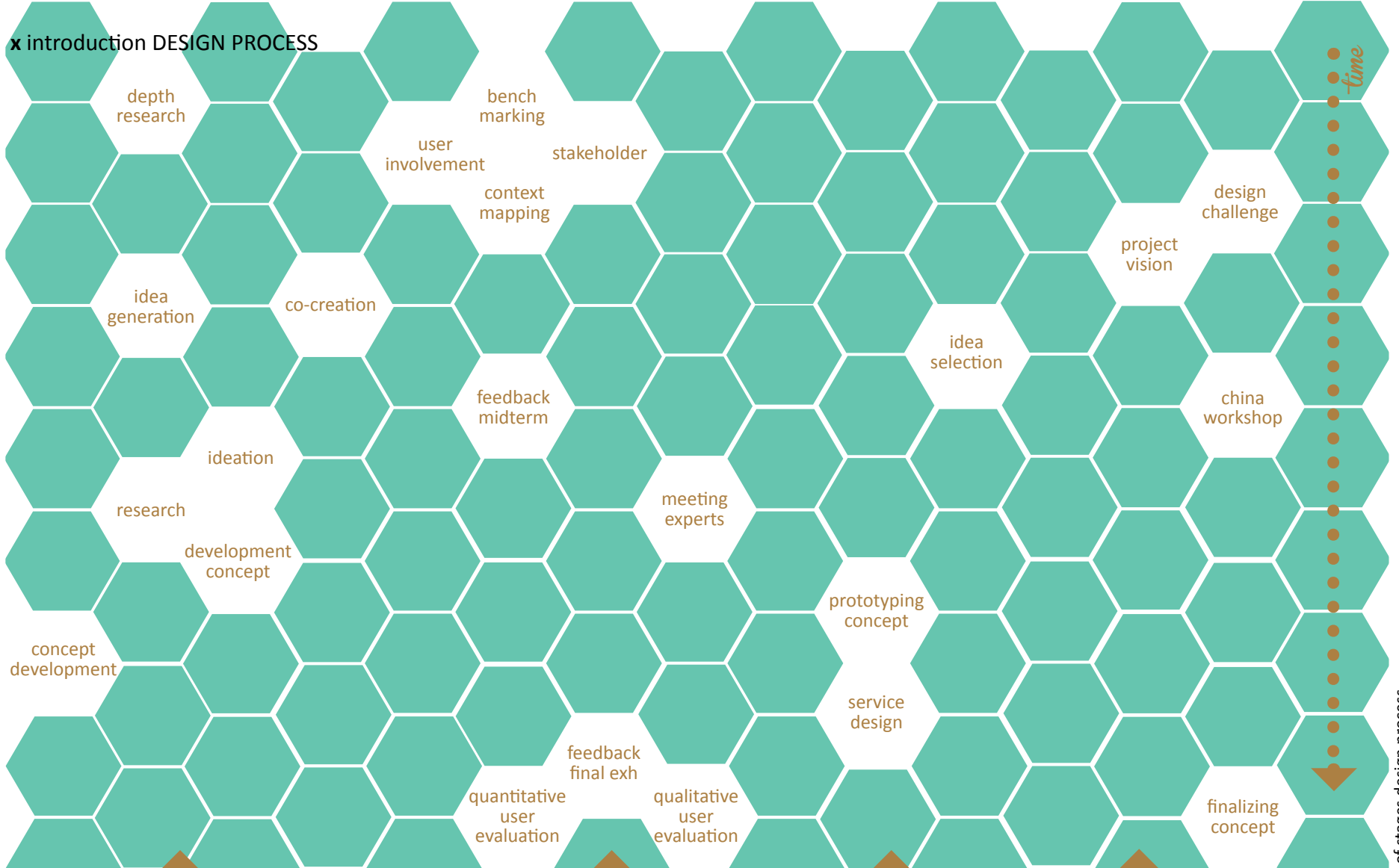
So much people with knowledge and expertise within the creative sector will be working in STRIIP T the upcoming years. In my opinion the challenge can be found within stimulating the people to socially interact by triggering, instead of forcing them to do so.

The threshold to socially interact is lowered when you feel connected with each other and when you feel more at ease within your environment [p19][4]. Through offering users these feelings, I am willing to catalyze social changes that will stimulate social interaction, by what the collaboration within and livability of a working area will be improved.

diagram 1

16% of time spend on working for approximately 40 years

x introduction DESIGN PROCESS



thinking
analyzing
abstracting

X

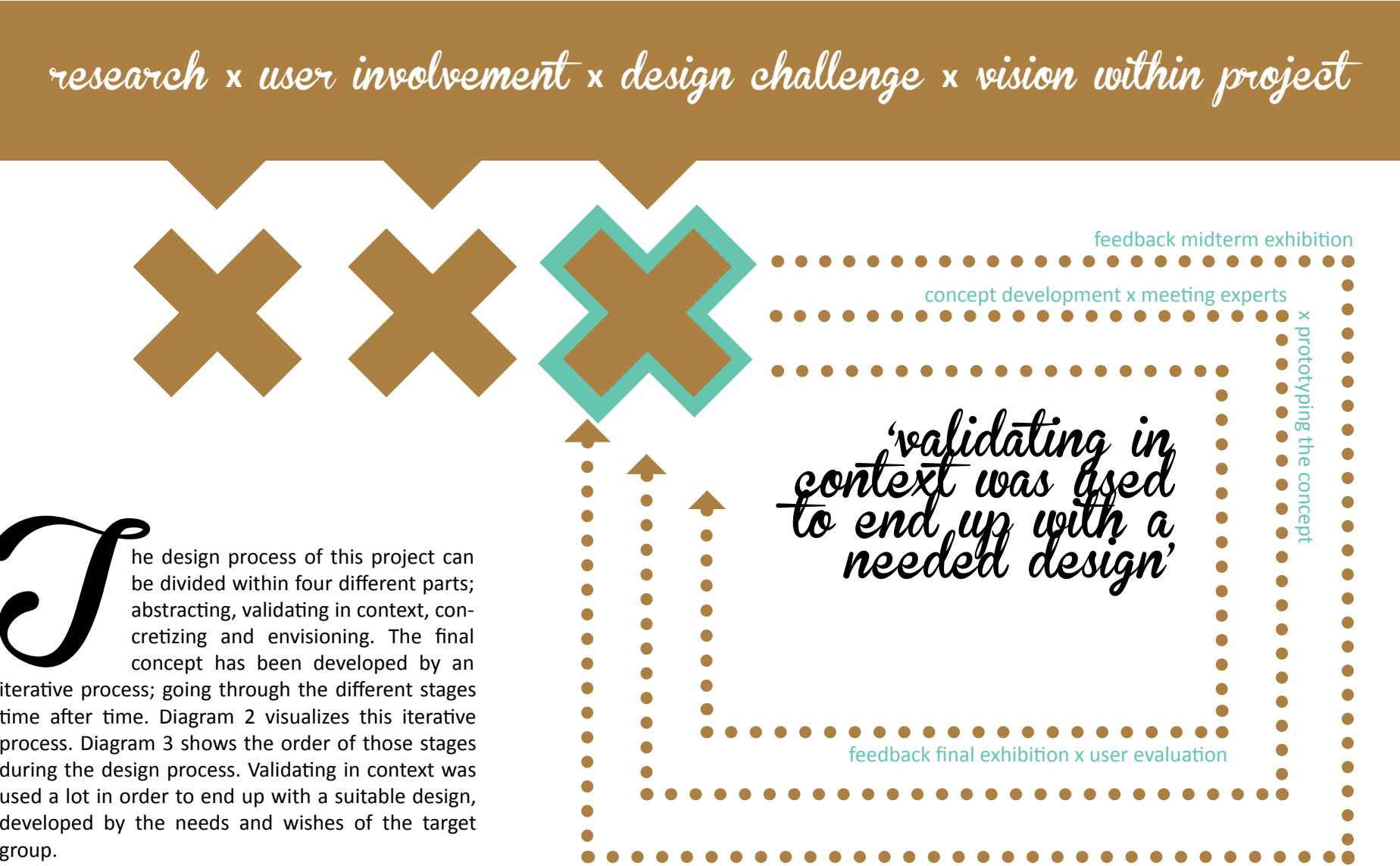
exploring
validating in
context

X

making
synthesizing
concretizing

X

envisioning
transforming
society



The design process of this project can be divided within four different parts; abstracting, validating in context, concretizing and envisioning. The final concept has been developed by an iterative process; going through the different stages time after time. Diagram 2 visualizes this iterative process. Diagram 3 shows the order of those stages during the design process. Validating in context was used a lot in order to end up with a suitable design, developed by the needs and wishes of the target group.

The theme of public space design has been explored through benchmarking. Existing designs were analyzed and compared to each other, resulting in the first inspiring steps to get known with this design area. It created awareness for different methods to involve and trigger people to stimulate social interaction. For instance 21 Balançoires by Daily Tous Les Jours was seen as a beautiful example, this project triggers people to join by anticipating on their sense of curiosity and stimulates social interaction in a playful way [5].

Research has been done towards public space design and triggers for people to join an installation, elaborating on the insights of benchmarking. The most essential perspectives were found on playful persuasion and social embeddedness to trigger people to participate, making use of intrinsic and extrinsic motivation and the manner the installation is woven into the environment[6][7][8][9]. It is essential to note that in nature, organisms participate in behavior that is exploratory, playful and curiosity driven, even in the absence of rewards.

important quotes

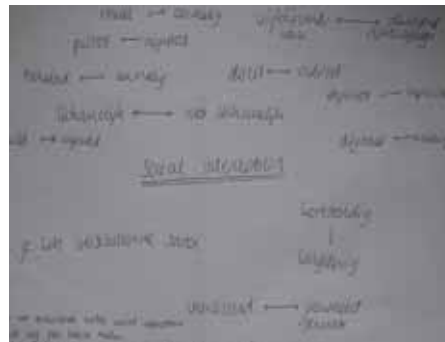
'Public spaces in cities can also be seen as a place where people can play. People like to participate in social activities. This needs to be voluntary, have a low threshold, offer something for everyone, easy to step in and out as well as flexible in its requirements. Playful activities furthermore can be influenced and encouraged by using social embeddedness and playful persuasion.. Social embeddedness requires a type of competition, a challenge, needs to be simple, stimulate interaction between people & fun. Playful persuasion uses competition, simplicity control, sensation, lack of rules and the freedom of expression to trigger people to participate' (Eric Paulos E.G., 2004)

'A designer can use extrinsic motivation to stimulate the use of a system. Extrinsic motivation starts from variables that are outside the person. The perceived usefulness of the system influences if people will participate in or uses it. In such a case, individuals use the system for its perceived benefits.

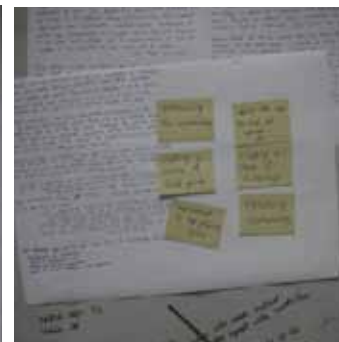
Intrinsic motivation can drive why people use technology to begin with. It is an internal psychological driver. People will do an activity because of an interest as well as for the fun and challenge the activity might offer. This relates to the perceived enjoyment of the activity, which depends on the novelty of the activity. The novelty of an activity can arouse curiosity and challenge users.

'Community based involvement' can also be a great intrinsic motivator. If friends participate, our own comfort will increase. This community involvement is also relevant because people like to share experiences with their peers; people like being part of community.'(Ho 2012)

'The concept should fit the context they are meant for. As reactions and the system itself is perceived as being situational variable (dependent). Systems should go with the physical and the social environment the system is being designed for and thus should seem seamlessly woven into our social fabric. (Joep (J.W. Frens 2009) (Ho 2012)



IMG 3 | exploration 'social interaction'



IMG 4 | research on public space design



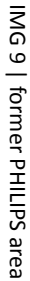
IMG 5 | exploring existing projects



IMG 6 | 21 Balançoires - Daily Tous Les Jours



IMG 7 | guided tour through strijp T



There was searched for a public space where the social interaction could be improved, whereby the users should feel/agree on the necessity for this improvement as well.

Roughly taken this target group can be divided within two groups [10];

- Accidental users (for example the client of a company) could use the concept by chance, but this should not be the main goal of the installation.

x 15

Observing for two days, working in this area for several days and three user interviews helped to explore the habits of the people working in these areas. The most striking insight was the specific timeslots people are going outside of their workplaces;

Timeslot I : to go to your work
Timeslot II : during the lunch
Timeslot III: to go back home

During timeslot I and III the people are not living in the 'now'; everyone is in a rush to start/plan their work-day/going home. Working hours does differ time after time; it depends on the workload.

In between the timeslots people take some breaks, this depends on the workload as well and differs per person.

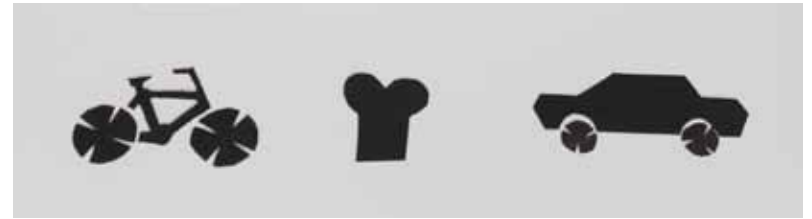
'Sometimes we play some football, if we need a break because we cannot concentrate anymore' - intern design company.

A more elaborate report on the observations can be found here [appendix B].

Through the user interviews the needs and wishes of the users were explored. The results are mapped in a 'People value canvas' [p26][11].

It turned out people involved within the creative sector are more eager to socially interact with each other. Desired from a business perspective, but even from a social perspective; to decompress/relax together. This contrast might be a consequence of the difference sizes of the companies; in general the companies within the high tech industries exists of a lot of employees while the companies within the creative sector at most consists of five persons. Based on this insight the decision was made to focus on people working within the creative sector.

'specific timeslots to deal with'



IMG 11 | possible timeslots for interaction



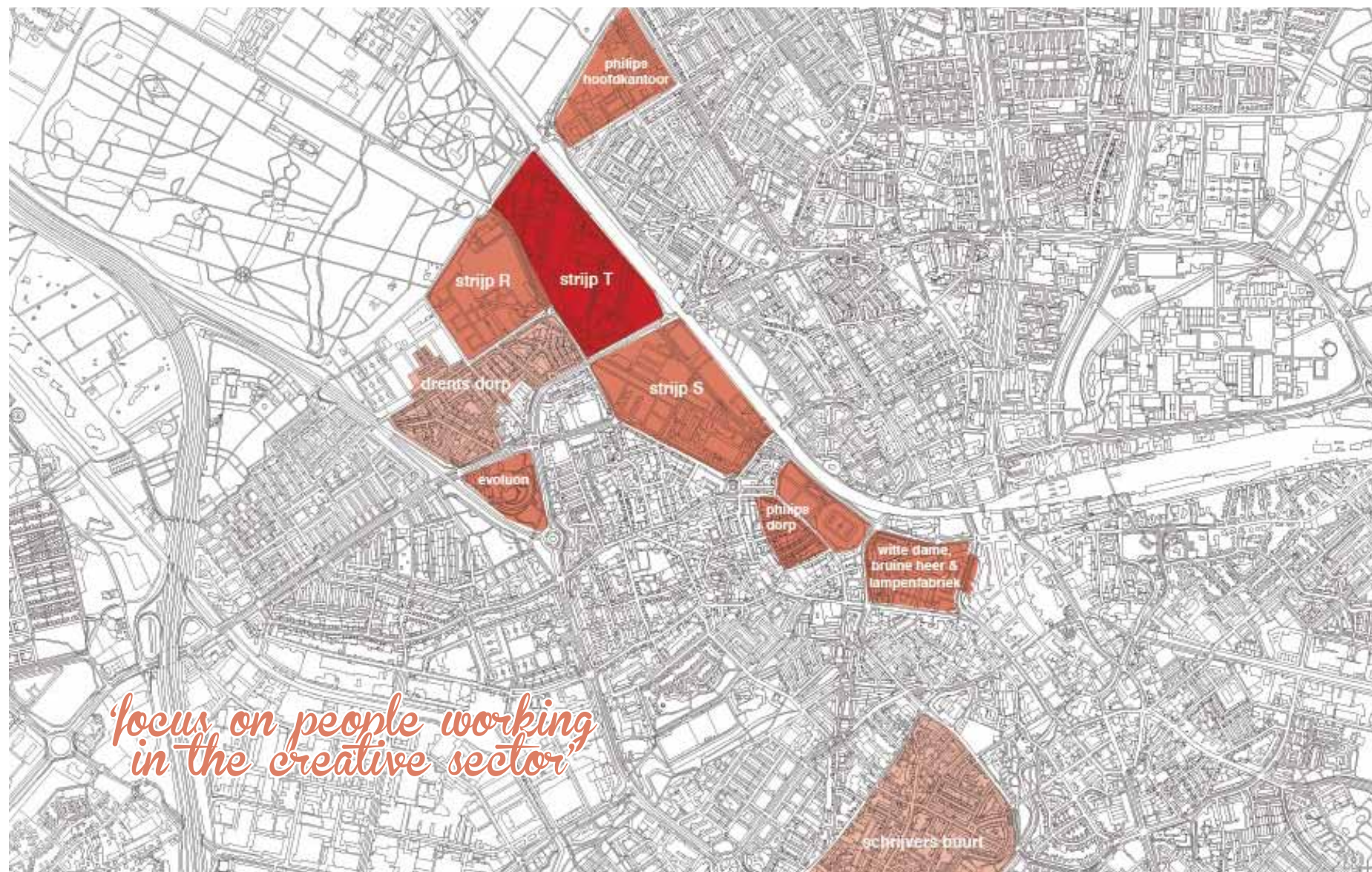
IMG 12 | private lunch spot strijp T



IMG 13 | result user interview



IMG 14 | entrance and exit pathways drawn on the map





a stakeholder was found; V3RS. This design company was involved during the whole process several times to be able to verify insights and concepts. V3RS consist of two Design Academy alumni and is located at STRIJP-T for a year already. The company provides handcrafted, image-defining and visually intense lighting objects.

All research and insights so far has been linked together which led towards a vision within the project and a specific design challenge. The little to none social interaction within STRIJP T can be seen as an huge missed opportunity. So much people with knowledge and expertise within the creative sector will be working in this area the upcoming years. Social changes should be triggered and catalyzed, which will stimulate social interaction on a business and social level. The threshold to socially interact should be lowered.

The formulated challenge: to stimulate social interaction within STRIJP T by what the collaboration within and livability of the neighborhood should be improved. By improving social interaction from a business perspective more collaboration could be reached. Improving livability can be conceived as improving social interaction from a more social perspective.

'involve stakeholder to verify insights and concepts'

IMG 16 | visit to stakeholder V3RS, a design company located in strijp T

feeling connected and at ease stimulates social interaction

A co creation was set up with V3RS, in order to ideate together on possible ways to improve social interaction at STRIJPT T. There has been defined that there should be a social place/hang out spot within STRIJPT T, which will be the solid base and a tool for developing and reflecting concepts with many creative disciplines; cross-fertilization. This social place 'the plaza' should function as a place where you have the chance to decompress and not focus on work for a little while as well. So, the plaza will stimulate social interaction from both the business and social perspective.

Furthermore, there has been investigated what kind of situations in life leads to social interaction while there is normally a little to none interaction. Examples on feeling connected with each other has been put forward; for instance during a train delay or by doing an activity with your neighbors. The influence of an environment on social interaction has been discussed

as well; feeling comfortable and at ease within an environment leads to a more open attitude towards others, which increases the likelihood of social interaction.

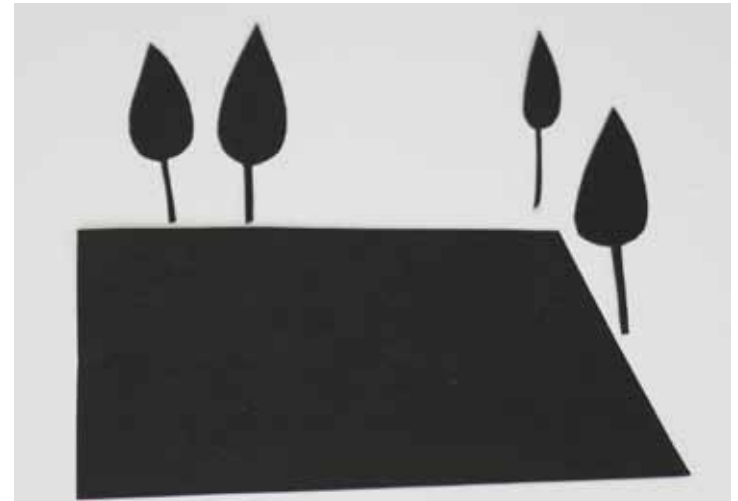
The idea of the plaza has been elaborated based on these insights. The plaza should be designed and made by the people working within the creative sector themselves. The people will feel more at ease, because they add something to the environment themselves. By realizing the plaza together, the people will feel more connected with each other. These feelings will stimulate social interaction.

Within this project the challenge has been seen to develop the trigger to go there and to interact with each other and has not been approached as developing/guiding the process of building the plaza.

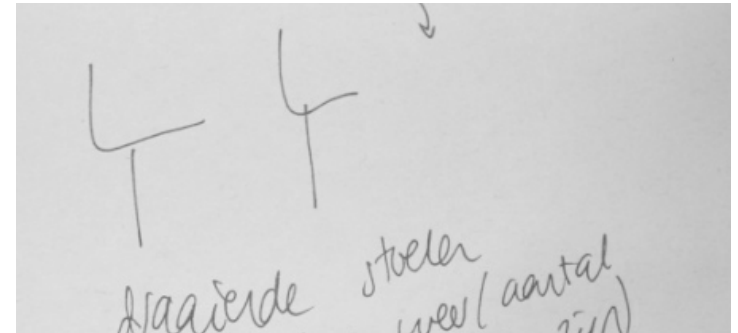
Several brainstorm sessions were done with the design challenge in mind.



IMG 17 | place to realize plaza

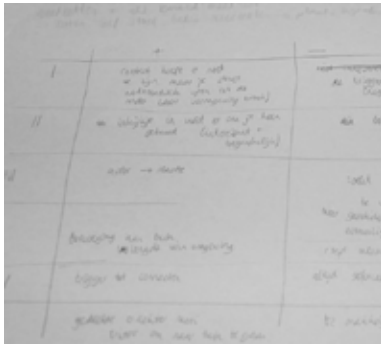


IMG 18 | result co creation; plaza



IMG 19 | brainstorm

x IDEA SELECTION | EVALUATION through FEEDBACK MIDTERM EXHIBITION



IMG 20 | QOC analysis ideas



IMG 21 | vision captured in video

'trigger people to socially interact instead of forcing them to do so'



IMG 22 | result co creation 'plaza'



IMG 23 | challenge to trigger people



IMG 24 | QR code mid term video

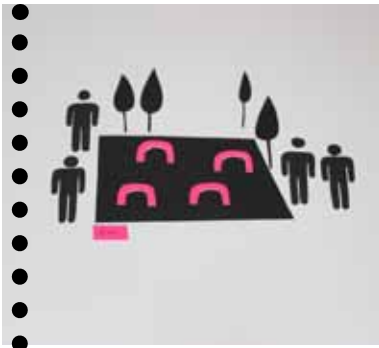


IMG 25 | underpinning concepts

a selection of 20 most promising ideas was made out of 60 divergent ideas. Those 20 ideas were ranked on the basis of a list requirements. This selection provided 2 ideas. These ideas are explained on the opposite page. These ideas are visualized within a stop motion video, in order to communicate the ideas properly during the midterm exhibition. The script and the link of the video can be found in [appendix C].

The received feedback on the ideas and the video was positive; the design challenge and vision has been received as valuable. Idea 2 was more appreciated, since people are triggered to socially interact. In contrast to idea 1, where people are kind of forced to interact with each other.

Based on this feedback the decision was made to develop idea 2 further. Since the fact to enrich people with a tool whereby they will be activated/triggered/motivated to address 'the problem' themselves matches my vision on design completely.

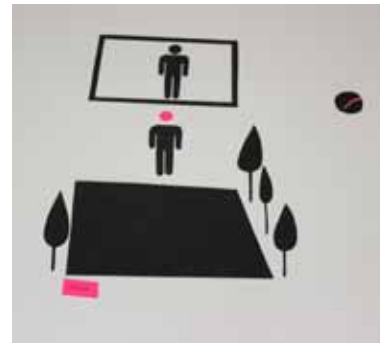
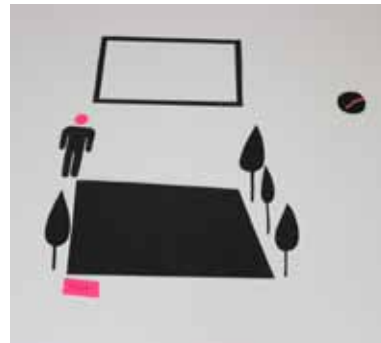
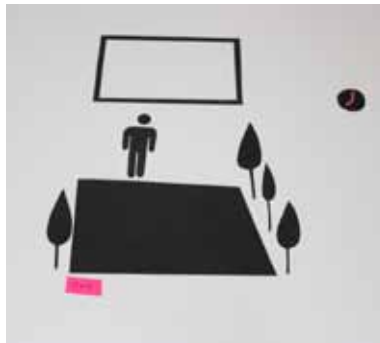


I

'Never show your back': This concept is inspired by Gaudi's famous couch in parc guell. Chairs are placed in the plaza. User A is enjoying his lunch on chair A. When user B will sit on chair B, the chair of user A is turning automatically in a way user A does not turn his back to user B anymore. When user C enters the plaza and is going to sit on chair C. The chairs of user A and user B are turning in a way the users has an open attitude towards user B. The position of the chairs relate to the number and position of users, it can be seen as a kind of swarm intelligence.

II

Meet me': The second concept is about meeting in space across time. A huge intelligent mirror should be placed close to the plaza. User A is walking by and sees the beautiful environment she is working in. User B is passing the mirror 5 minutes later. His reflection strikes him, since it is the reflection of user A instead of his own. This should trigger him to have a lunch at the plaza, to meet up with people who are working in this area as well.

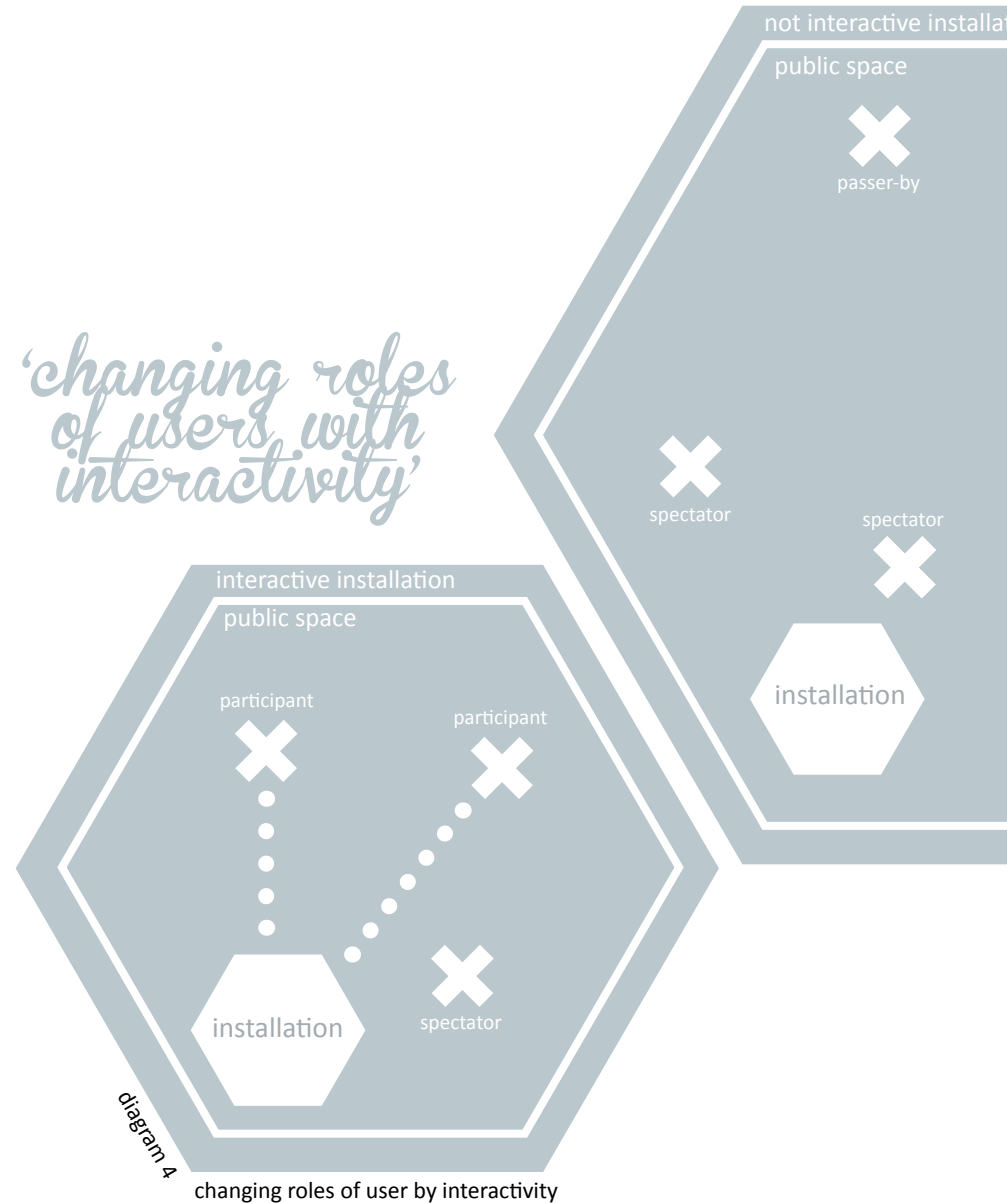


IMG 26 | two ideas explained; idea I : 'Never show your back', idea II : 'Meet me'

a three-week workshop by TU/e desis lab was attended during the SDL weeks after the midterm exhibition. [appendix D] This experience influenced the project on different aspects.

The usage of projection within a concept was explored. The benefits of using projection above – for instance - LCD screens were encountered. Interesting for idea 2 ‘Meet me’ has been the advantage of the possibility to use the environment as part of the installation.

Awareness was gained on the different roles users can have within an installation design [12]. For example, by making an installation interactive users become participants instead of just a passer-by or a spectator. This insight has been applied to idea 2 ‘Meet me’ as well.



tion



passer-by



spectator

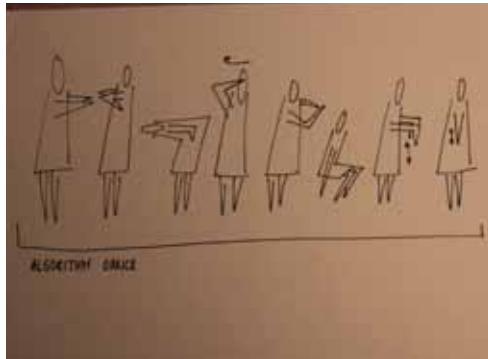


passer-by

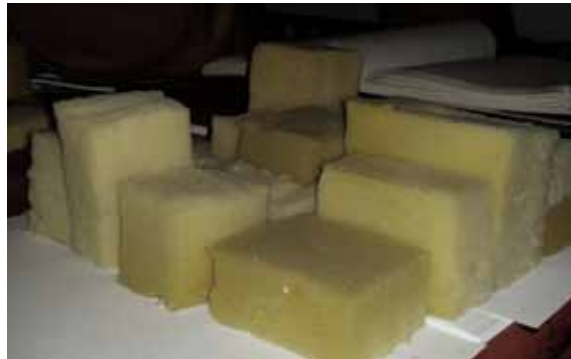


*'use environment as part of
the installation with projection'*

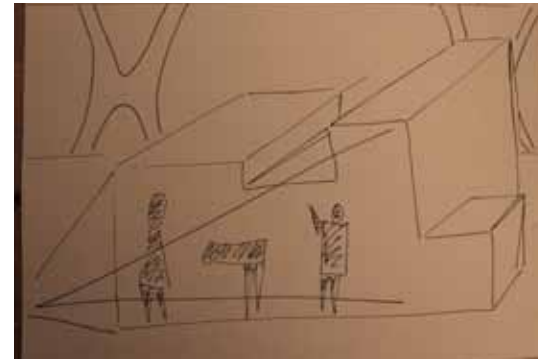
x ITERATION II | IDEATION | CONCEPT DEVELOPMENT | CONCEPT REQUIREMENTS



IMG 28 | exploration movements Algorithm dance



IMG 29 | exploration form multifunctional installation

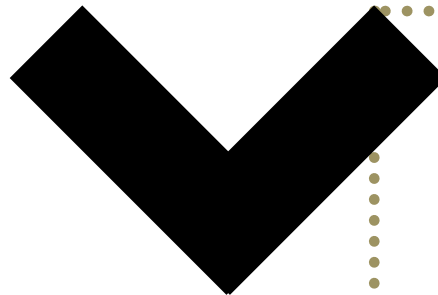


IMG 30 | projection on wall installation



IMG 31 | scenario

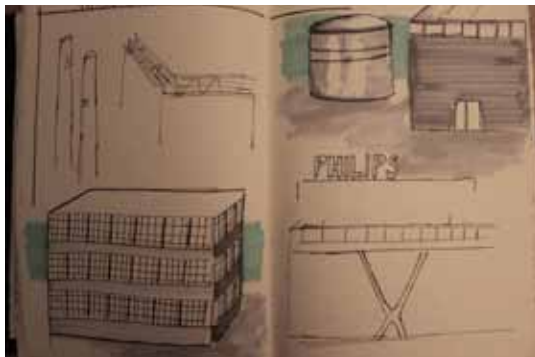
input user



low threshold to participate
stimulate (trigger, not forcing!) social interaction in the physical world
playful
freedom of expression
simplicity control
offer something for everyone

easy to step in and out
voluntary
interactive
make use of intrinsic motivation; no rewards
woven into environment
woven into existing time schedule

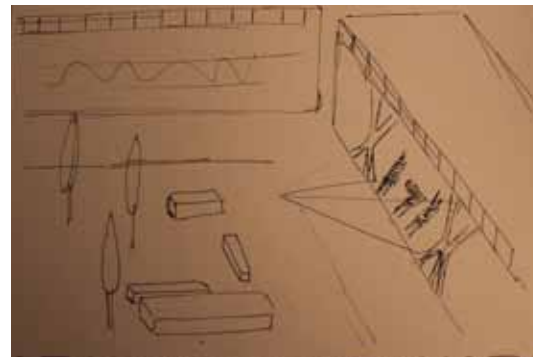
IMG 32 | concept requirements



IMG 33 | characteristics STRIJP T



IMG 34 | exploring shading



IMG 35 | brainstorm



IMG 36 | exploration visualization projection

There has been elaborated on idea 2 'Meet me'. A brainstorm session was done to apply the insights on using interactivity and projection [p22] and even to integrate the insights gained during the co creation session more [p19]; creating something together and adding something to your own environment increases the likelihood of social interaction.

Result of the brainstorm session has been a multifunctional installation [IMG 29], which should consist of several blocks with different heights and should be placed in the plaza. Lunch can be eaten on top of it and the walls can be used to project on. Inspiration was found in the 'Algorithm march', which is a dance performed in lines, moving canon style one at a time. After each movement, the line takes a step forward. Anonymous silhouettes dancing a preprogrammed 'Algorithm dance' will be projected on the walls of the installation. Users would be able to 'add' their own body and movement by standing in front of the installation on a certain spot.

Concept requirements were drawn from earlier research, to be able to criticize this idea. [IMG 32].

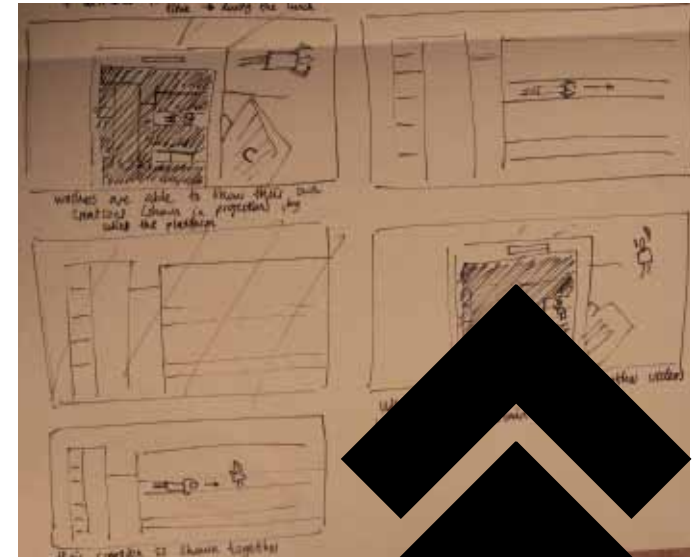
Point of improvement was found on the fact that the installation should be placed in the environment, instead of using something that is already present and characteristic

for this specific area. Another disadvantage was found on not reaching a large part of the people, because they simply do not use the pathway next to the installation [p16 IMG 14].

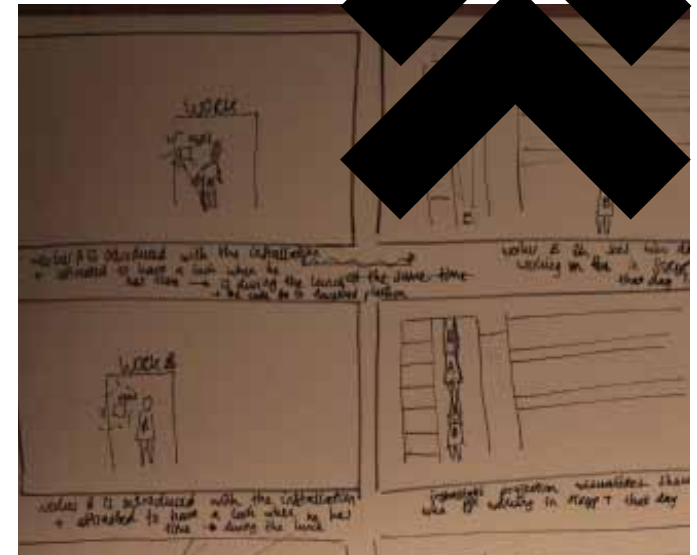
Earlier observations within STRIIP T were used to find usable characteristics to project on [p14]. Also shading was taken into account, since a projector cannot compete with the sun.

A former PHILIPS building [IMG 36] – in front of the plaza – was selected. People would be able to add something to the projection by being photographed at the entrance of the building they work in. The 'Algorithm march' was not utilized anymore to offer the users more freedom of expression.

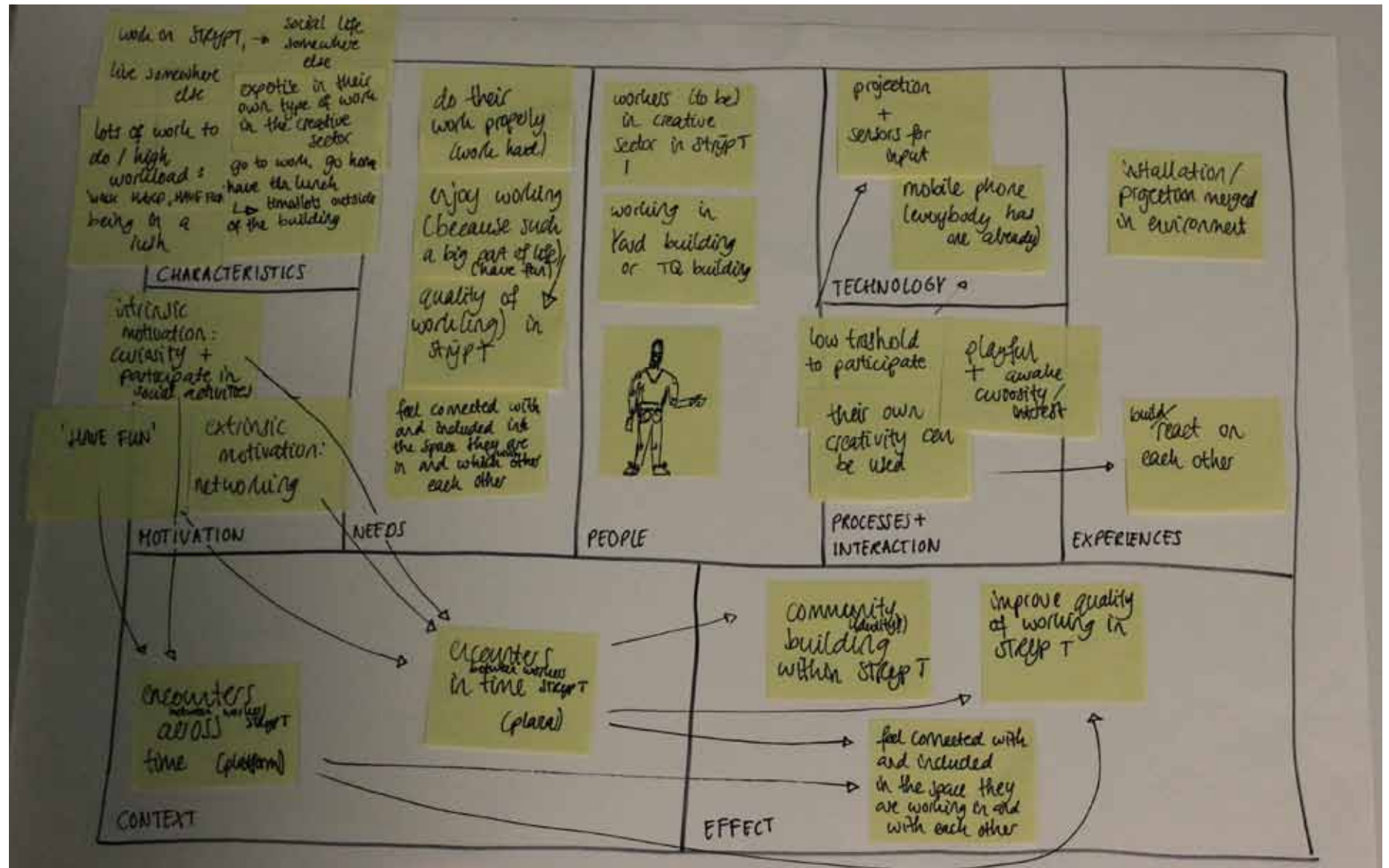
By making a scenario for this idea more points of improvement became clear. The approach on giving input as a user was changed. A platform should be created for being able to add something to the projection. Whereby usage of the installation could be woven into the existing time schedules of the users much more [p16 IMG 11]. The user will be notified on his mobile device when somebody else gives input to the installation, which entails an extra trigger to participate as well. This platform lowers the threshold to participate as well, since input can be generated everywhere.



IMG 37 | scenario input platform

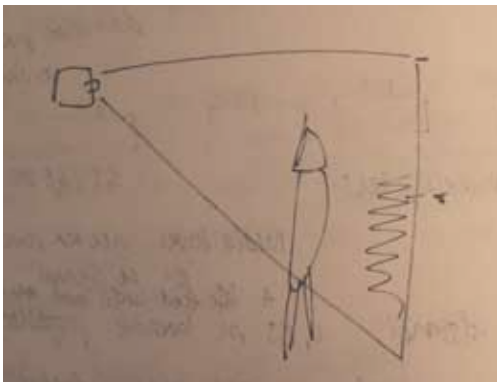


IMG 38 | scenario input photograph entrance every building





IMG 40 | lux measurement during expert meeting



IMG 41 | projection advice Rob van Bokhoven

Research was done to verify the applied insights on interactivity and on the fact that creating something together and adding something to your own environment increases the likelihood of social interaction, as a consequence of the generated feeling of connectedness with each other and included feeling with the environment. [4][13][14][14]

The concept has been discussed with Sascha Raayman, social psychologist [16]. She agreed on the effects of creating something together and adding something to your own environment.

'I ask children to make a drawing, which I put on the wall of my room. The child feels more at ease the next appointment and is more open for consultation.' Sascha Raayman, social psychologist

The concept has been discussed with several experts on projection as well.

'I strongly discourage to projecting during the daytime, it is possible but only with an unlimited budget, which is not possible' Rob van Bokhoven, expert on projecting [17]

Based on this advice the decision was made to move the installation inside.

Filling in a People Value Canvas helped to make clear how the concept could be improved; the 'blind spots' became visible.

'People Value Canvas consists of a number of building blocks and acts as a strategic tool that allows for holistic development and description of concepts, and takes the interdependencies between different blocks into consideration. The idea behind the Canvas is that a product or service is of added value only if it satisfies user needs and fits user motivations. On the one hand, the Canvas helps in structuring users' needs and wishes (the context). On the other, it describes how a proposed new solution will meet these (the effect).' Waag Society, 2013 [11]

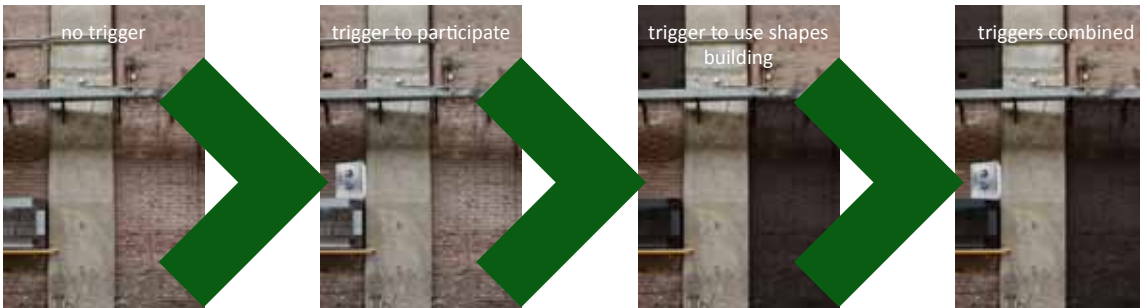
Point of improvement was found on the threshold to participate within the installation; how is the user triggered/stimulated to participate? Another point has been to use the environment as part of the installation, instead of just a canvas to project on.



IMG 43 | main entrance hall of 'the Yard'

IMG 42 | logo platform

IMG 44 | development triggers



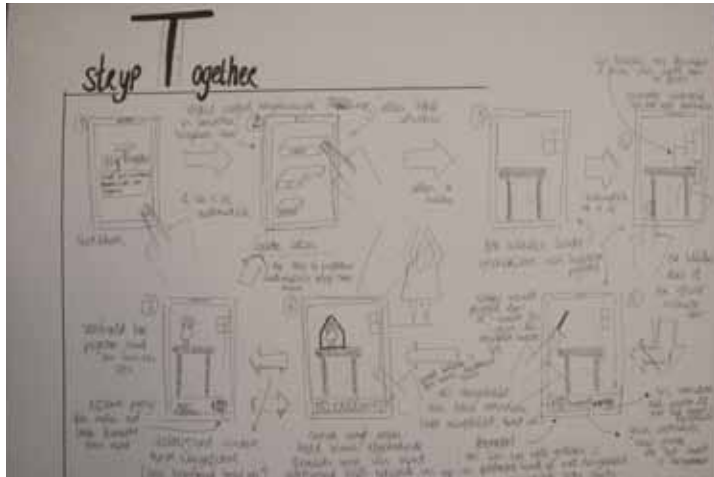
IMG 45 | experimenting with projection



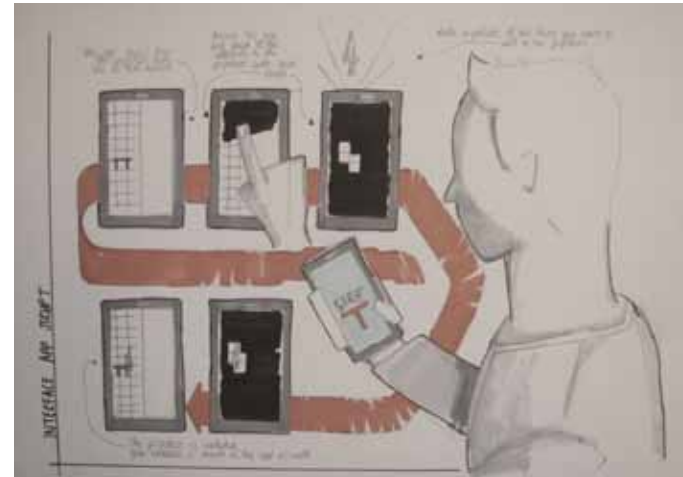
IMG 46 | projecting during the daytime

a new place inside to project on was found; the main entrance hall of the building 'the Yard'. Most of the small companies within the creative sector will be established in 'the Yard' and everybody walks through the main entrance hall at least twice a day [IMG 43]. This place has been discussed with Rob van Bokhoven, projection expert [167], on feasibility and was found appropriate. Experiments with projecting on the walls proved this as well.

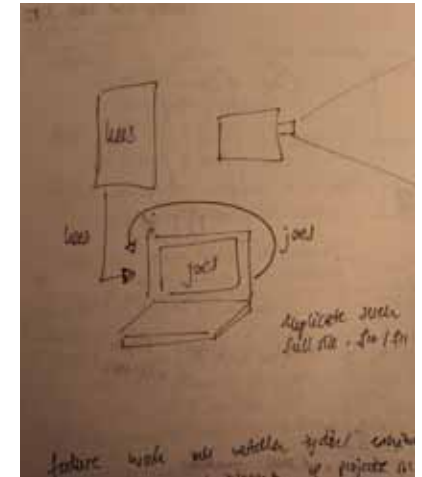
The people who are working in 'the Yard' should be triggered to participate by an image. This image differs every day and is projected on the wall and visible within the platform. This trigger could be a safe with gold for instance [IMG 44]. Users would be triggered by the novelty of this image, and this way



IMG 47 | communicate concept for prototyping



IMG 48 | communicate concept for prototyping



IMG 49 | division of labor

of triggering anticipates on the curiosity of the users as well [6][14][15].

The main entrance hall has a lot of interesting shapes, that could be used to build upon and could function as inspiration for the input of the users. A trigger to make use of these shapes while adding something to the projection has been developed [IMG 44]; by what the environment would be used as part of the installation. The trigger hints the user by darkening specific parts of the wall, by what the specific shapes are more noticeable. This trigger should be just visible within the platform, not within the real projection. Even though a specific part is darkened, the user is still able to add something on this specific part, in order to remain the user's freedom of expression.

A logo has been designed for the platform STRIP-T-TOGETHER [IMG 42]. The platform interface was developed by experimenting and prototyping. Ways to give input were set on drawing and photographing. The platform was prototyped in cooperation with Kees Hendriks, student Informatics [18]. Approaches to communicate the concept properly were explored [IMG 16][IMG 48]. A prototype has been build which could be used during the final exhibition and during the upcoming user evaluation sessions.

Over time the goal has changed from triggering people to go to the plaza [p19] into stimulating people to socially interact with each other anyway. The trigger to go to the plaza could be increased as a consequence of more social interaction, but this was not approached as the

main goal anymore. In fact the main goal of this concept has been to become superfluous. The social interaction will be stimulated by changing the users' own feelings, whereupon the users should take control on their own destiny. At that moment, the concept is not needed anymore.

The final concept is explained on [p 36].

IMG 50 | poster I



IMG 51 | poster II



IMG 52 | prototype used during the exhibition



As a consequence of the concept STRIIP-T-OGETHER a customized service is designed, since the installation could be embedded in much more working areas. Every working area has another environment obviously. As a consequence there should be searched for an appropriate place to project on. Even the triggers will differ, since different people are triggered by different images.

On [p40] this customized service is explained more and a visualization can be found.

The concept STRIIP-T-OGETHER has been presented during the final exhibition. Visitors could add something to the projection of a wall of 'the Yard' by drawing or taking a picture [IMG 52].

The concept is seen as interesting, funny, well thought and substantiated. Points where more development would be needed were found on a realization level. How to

distribute the platform amongst the people who are working in STRIIP T? Who will invest in this installation?

Two visitors were a bit skeptical on the fact that a feeling of connectedness would arise from this concept. After using the prototype themselves they changed their minds; they actually experienced to feel more connected.

The advice was given to use a 3D picture of the environment within the platform. In this way the user will have a more realistic view on how his input onto the projection will look like. This 3D picture will also contribute to the way in which the environment is approach as part of the installation.



*'concept is seen as interesting, funny,
well thought and substantiated'*

IMG 53 | visitor final exhibiton uses the prototype

x EVALUATION through QUANTITATIVE USER EVALUATION x



IMG 54 | setting quantitative evaluation



IMG 55 | participant draws something



IMG 56 | participant fills in ICS scale



IMG 57 | participant



IMG 58 | creating together



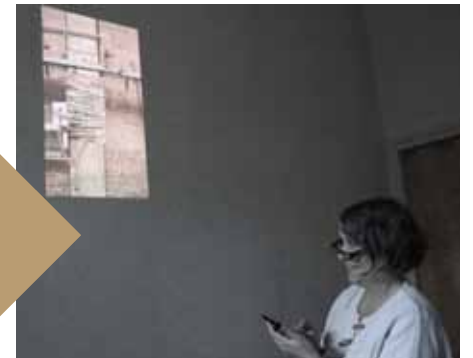
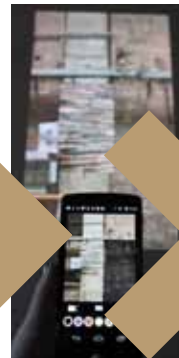
IMG 59 | participant



IMG 60 | participant makes picture



IMG 61 | participant



IMG 62 | participant situation III build onto input participant situation II

The concept STRIIP-T-OGTHER has been evaluated with users. Both a qualitative and quantitative approach has been used.

Quantitative set up

Five different situations has been evaluated in terms of social connectedness with each other and an included feeling within the environment. The five different situations has been selected to be able to compare different aspects of the installation. A more extensive set up can be found here [appendix E]

- Situation I - current situation, without the installation
- Situation II – installation with possibility to have input yourself, without building onto something some one added before
- Situation III – installation with possibility to have input yourself, with building onto something some one added before
- Situation IV – not interactive installation; video
- Situation V – no installation, after other situations took place

Situation I and V are added to exclude the Hawthorn effect as much as possible[19]. With the same reason different persons were used to evaluate different situations.

The feeling of connectedness with each other and an included feeling within the environment has been mapped with the Inclusion of Community in Self Scale (ICS scale)[20]. This scale is composed of 6 pictorial representations of two circles (one representing the community and the other representing the ‘self’). Each of the pictorial representations varies from its neighbor by increasing the intersection surface. An increase in this intersection shows a closer sense of inclusion to the environment and connectedness to people [IMG 56] [appendix F].

Pilot

Previously was decided to use the ICS scale in combination with the Social Connectedness Scale Revised (SCS-R scale) [21]. It became clear that the employees had only a few minutes to participate during the pilot at HULP, institute for supplemental training [22]. Hence the decision was made to only use the pictorial ICS scale. A smart way of using the sequence of participants was found out as well; participant A experiences situation II, as a consequence the next participant will experience situation III (with the input of participant A).

Results

The user evaluation was conducted at the MOED, a building where different medical institution are established (e.g. a general practice, physiotherapist, pharmacy,

gym) [23]. Nowadays there is hardly any social interaction between the different institutions/companies. 11 ‘new’ people participated within every situation.

Even though the differences are small, there are variations visible between the mean of the different situations [IMG 63]. The average of an included feeling within the environment increased when the participants were able to add something themselves to the projection. Even a non interactive video provided the participants a more included feeling, which could be due to the change within the environment by what the participant became more conscious about it.

The feeling of social connectedness with each other increased as well by being able to have your own input to the projection. And increases substantial by being able to react on each other. The participants acted more excited by being

able to react on each other as well. ‘I am curious where the projection would look like after this day’ Participant situation III

Situation III (situation where the concept as a whole was evaluated) provided the participants the highest average of an included and social connected feeling, by what could be stated that the concept STRIIP-T-OGTHER has influence on these feelings.

The averages within situation I and situation V differ from each other, but still are both the lowest averages of the user evaluation, by what could be concluded that the Hawthorne effect was successfully excluded.

Additional there has been declared that a possibility to discover who added certain things would contribute to the feeling of social connectedness with each other.

	No installation		Own input		Own input + react		Not interactive		No installation	
	Situation I		Situation II		Situation III		Situation IV		Situation V	
	people	environment	people	environment	people	environment	people	environment	people	environment
	5	5	3	4	5	4	3	5	3	4
	3	4	3	2	3	3	5	4	3	2
	3	2	4	3	3	3	3	2	4	2
	4	2	5	5	5	5	4	2	2	3
	2	4	4	4	3	4	2	5	3	3
	3	3	5	4	5	4	4	5	5	4
	5	4	3	3	5	3	5	4	2	1
	2	1	5	6	5	6	3	2	5	5
	5	5	4	5	5	5	5	6	5	5
	4	5	5	5	4	5	5	4	2	5
	4	5	3	4	4	4	2	2	3	2
Mean	3,636364	3,636363636	4	4,090909091	4,272727	4,181818182	3,727273	3,727272727	3,363636	3,272727273
St Dev	1,120065	1,433368569	0,894427	1,136181804	0,904534	0,981649817	1,190874	1,489356176	1,206045	1,420627262

IMG 63 | diagram with mapped ICS scale results quantitative evaluation

'your installation could give color to strijp t a bit'

Co-reflection has been used as a qualitative constructive approach on evaluating the triggers to participate and use the shapes of the environment within the installation.

In short, co-reflection can be defined as a collaborative critical thinking process involving cognitive and affective interactions between individuals who explore their experiences to reach new inter-subjective understandings (Yukawa 2006)[24]. Co reflection sessions can be developed in three parts: exploration on the current situation, ideation through a discovery process and confrontation between users and designers. Each part builds upon the next [25].

Two persons working within the creative sector of STRIJP T participated within the session. The concept was introduced to the participants, after this they were asked to brainstorm about triggers to join the installation and triggers to build upon the shapes of the environment. Subsequently the

developed triggers within STRIJP-T-TOGETHER were introduced and discussed with the participants. A more extensive set up can be found in [appendix G]

Results

After some divergent ideas [IMG 65], the participants came up themselves with the trigger to join the concept by projecting something on the wall. Arguments on taking advantage of the curiosity of the participants were mentioned. The developed trigger within STRIJP-T-TOGETHER is similar to the trigger the participants thought of. The participants did not agree on the chosen 'safe with gold' trigger, images about hot topics within the news or specific utensils for this area would trigger them more.

Freedom of expression was mentioned as very important, as a consequence the participants did not think a trigger for using the shapes of the environment was necessary. After introducing the developed trigger within STRIJP-T-TOGETHER they experienced the difference and agreed on

the usefulness of it. The participants shared the view on censorship; there should be no need to control the installation. Every input should be approached as valuable to build upon, to start a discussion about. The fact that your input is not anonymous will lift the threshold to misuse the installation.

The difference in ability to think about what to add to the projection between the participant of the qualitative and quantitative has been remarkable. This could be due to the difference of creative background. Preprogrammed input (e.g. a cat or a hammer) should be added to the platform in order to lower the threshold to add something for less creative people.

There has been brainstormed on possibilities to distribute the platform within the creative sector of STRIJP T. This could be done through a weekly news letter or a common WIFI spot for instance. Everyone would have different reasons to join, after a discussions the participants agreed there is no need to inform the users about the essence of

the installation.

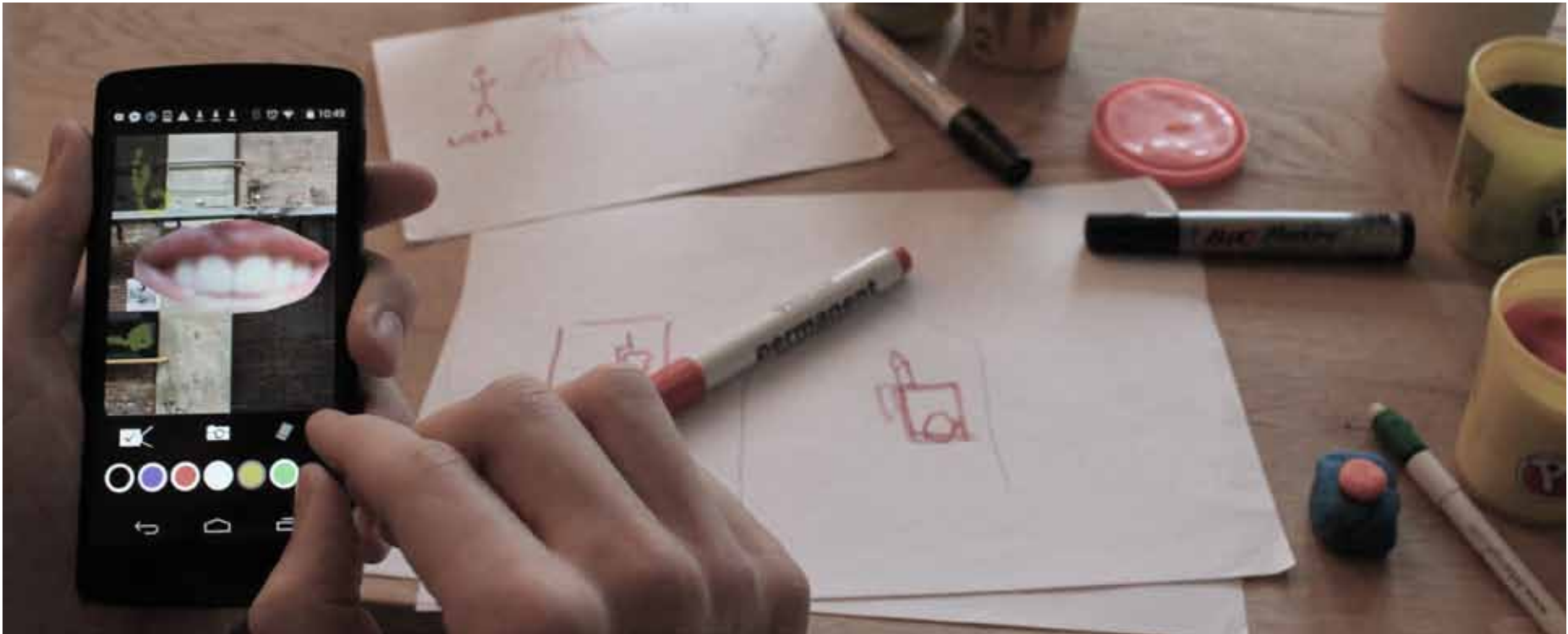
'Let them play and the magic will happen' – Ron van de Kerkhof, delegate V3RS [3]

Stakeholder meeting

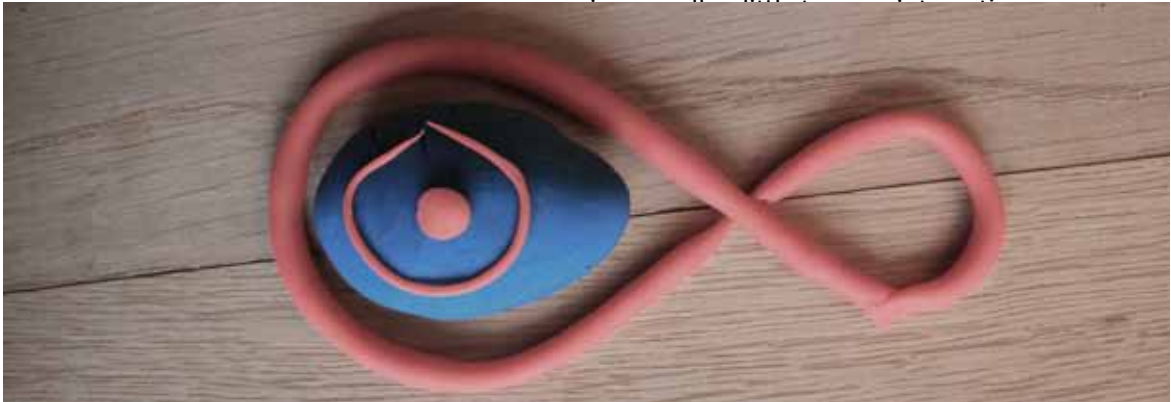
A meeting with Bob Goevaers, owner STRIJP T, led to more insights on the feasibility of STRIJP-T-TOGETHER. [26] The name and logo were appreciated. Bob Goevaers shared the formulated vision within this project and was interested in the concept. He approached the installation on a gadget level; you can live without it, but it makes your life more beautiful.

'90% from the ingredients of a milkshake are necessary, 10% of a milkshake gives the milkshake taste and color. Your installation could give color to STRIJP T a bit.' Bob Goevaers, 2014 [26]

There has been agreed upon involvement within an upcoming project at STRIJP T.



IMG 64 | participant experimenting with platform



IMG 65 | model idea key ring to trigger people to participate



IMG 66 | participant exploring platform

'installation consists of a mobile platform and a projection in the entrance hall'



IMG 67 | platform added to menu phone

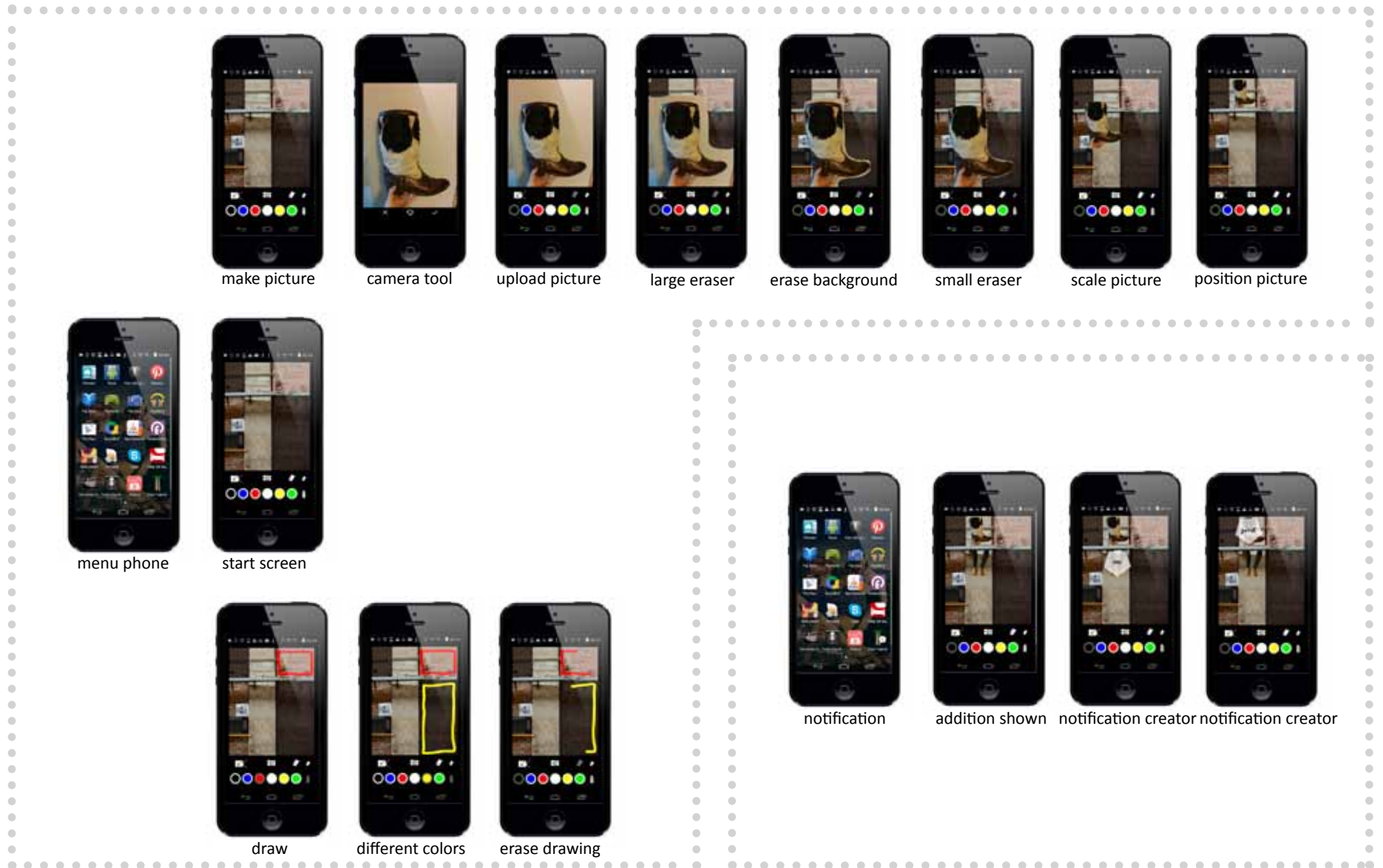


IMG 68 | home screen platform

Within the project the concept STRIIP-T-OGETHER has been developed: an installation that stimulates social interaction between everyone who is working in 'the Yard' – which is one of the buildings of STRIIP T. The installation consists of a mobile platform and a projection in the main entrance hall of the building. Users give their own input, which is projected in the main entrance hall of 'the Yard'.

A feeling of connectedness is generated with STRIIP-T-OGETHER by being able to create the projection together and to build onto each other's input [p19]. The users will feel more included within his environment by the opportunity to have influence on the environment and the possibility to add something to it himself [p24]. These feeling will lead to more social interaction [p19].

An addition to the projection can be made by drawing or making a picture. The drawings and pictures can be scaled and positioned in a way the user likes. There is a possibility to erase drawing mistakes or the background of an picture for instance. In [IMG 69] the interface of the mobile platform is explained more. A notification pops up when someone else add something to the projection. The creator of an addition is shown by tapping the addition, this increases the feeling of social connectedness [p32] and lowers the threshold to misuse the installation [p34]. This interface is shown in IMG 70.



IMG 69 | descriptive visualization interface platform

IMG 70 | notification interface platform

'social interaction will be increased as a consequence of the generated feelings of the users'

The concept is explained with the aid of a scenario [IMG 71].

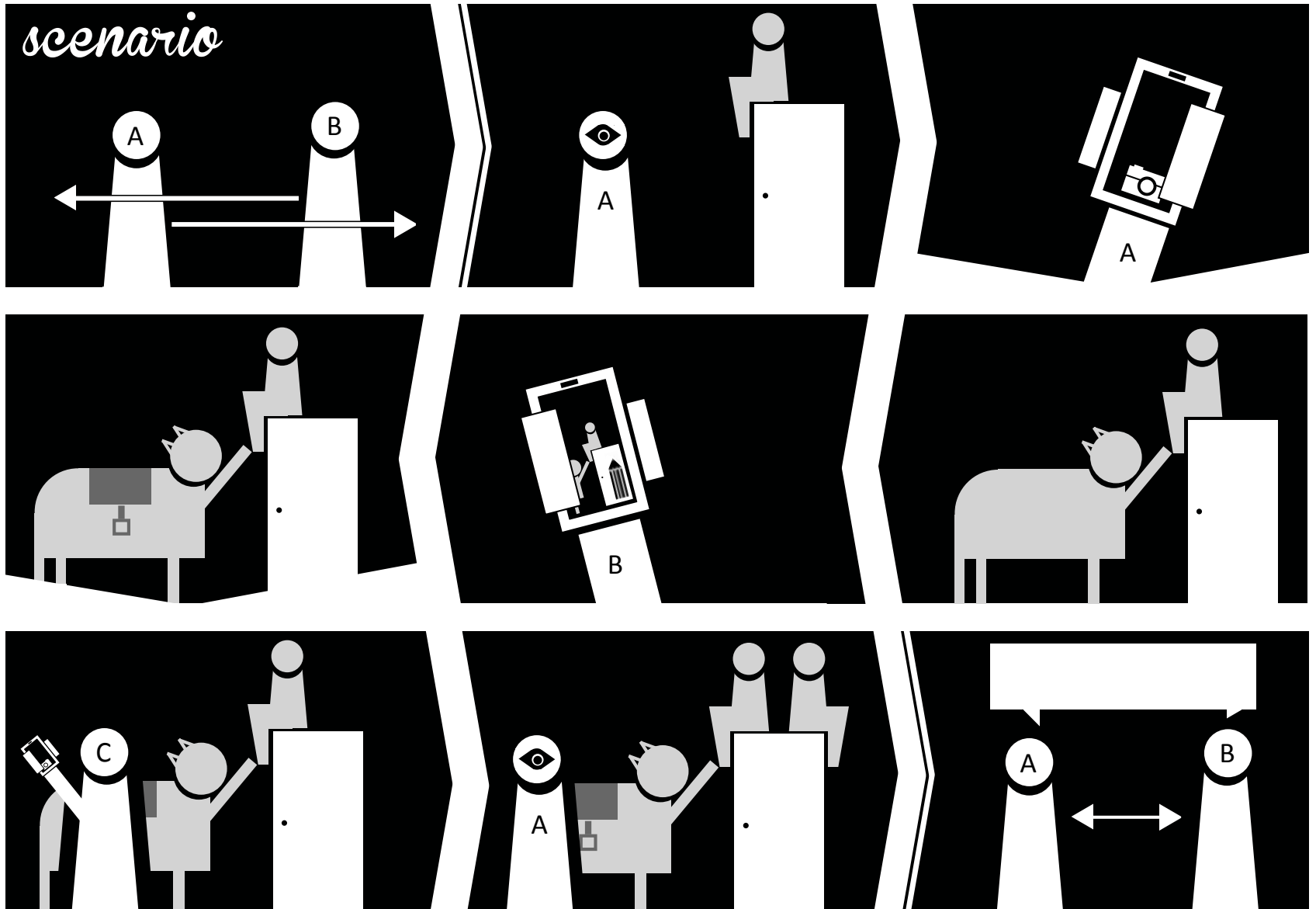
1. Current situation: there is hardly any social interaction between people who are working within the creative sector at STRIIP T. Which is experienced as a missed opportunity from a social and even from a business perspective.
2. User A goes to his work. In the main entrance hall he sees the projection. He is triggered by the projected image to react on it, but he is in a hurry to go to work.
3. The mobile platform of STRIIP-T-OTHERS offers him the possibility to

add something to the projection when he does have time; during his coffee break he has.

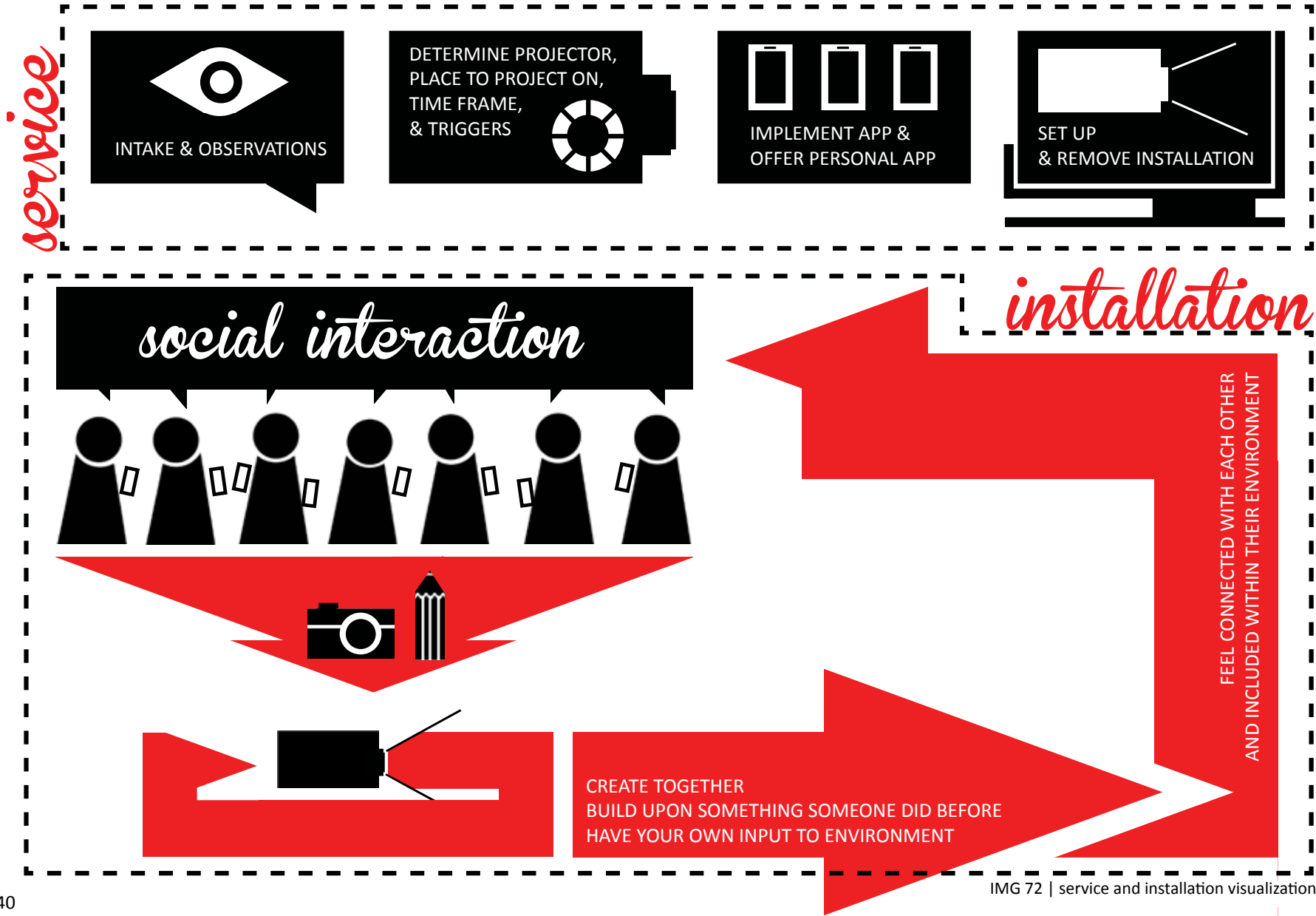
4. He makes a picture of a cat and adds this to the projection, his input is shown in the projection immediately.
5. User B receives a notification on his mobile device, because user A added something. The projection with the addition of user A is shown within the mobile platform.
6. User B builds upon the input of user A by drawing a saddle on top of the cat. This addition is immediately shown in the projection in the main entrance hall.
7. User C walks through the main entrance hall and sees the projection

with all the addition. He is triggered to add something himself.

8. He uses his mobile device to make a picture of a person who is in the main entrance hall as well. The platform's hints to use the shapes of the building makes him decide to position the person on top of the door.
9. The users feel more socially connected with each other by creating the projection together and building onto each other's input. [px] The users feel more included within their environment by the opportunity to have influence on the environment and the possibility to add something to it themselves. These feelings will lead to more social interaction.



IMG 71 | scenario STRIIP-T-TOGETHER



*'a name and logo would be designed,
related the specific area'*

As a consequence of the concept STRIIP-TOGETHER a customized service is designed, since the installation could be embedded in much more working areas. Since there is hardly any social interaction within these areas in general, although it is desired and could be very useful.

Every working area has another environment obviously. As a consequence there should be searched for an appropriate place to project on. Even the triggers will differ, since different people are triggered by different images.

The service would consist of four steps:

- Intake & observations ; The service would be explained to the client and the current situation would be observed.

- Determine projector, place to project on, time frame & triggers ; A place to project on would be determined, based on the possibility to reach people and possible interesting shapes of the environment. A projector would be chosen, suitable to this specific place. Specific triggers (images to trigger the people to participate) would be chosen, based on the interests of the people who are working there. There would be decided upon the length of period the installation will be used.

- Implement platform & offer personal platform ; The place to project on will be implemented as a 3D background within the platform, even as the chosen specific triggers to participate. Depending on the working area the possibilities of input would be changed [p34]. A name and a logo would be designed.

- Set up & remove installation ; The installation would be set up and after the planned period removed.

[IMG 72] shows a visualization of the customized service.

There has been chosen for this customized service approach, since the installation is seen as a gadget: you can live without it, but it makes your life more beautiful [p34]. The client should be asked to spend as little effort as possible into the installation, to make the wish to implement the concept as accessible as possible.

Perchance the client would be involved within the distribution of the platform to the people who are working within the area. This aspect needs to be deepened out more.

'societal relevance has been a necessity'

Within the project several iterations has been performed. Validating in context and user involvement were used a lot in order to end up with a suitable design, developed by the needs and wishes of the target group. User involvement ensures to focus on what is really needed, instead of what we, as designers, assume is needed. Societal relevance has not been approached as an option but as a necessity.

The design challenge was found in improving social interaction within a working area. This challenge is achieved by developing the installation STRIIP-T-TOGETHER for the specific context of STRIIP T.

STRIIP-T-TOGETHER carries out the set vision within the project [p9]. This installation enrich people with a tool whereby they will be activated/triggered/motivated to address 'the problem' themselves. A feeling of connectedness is generated with STRIIP-T-TOGETHER by being able to create the projection together and to build onto each other's input. The users will feel more included within their environment by the opportunity to

have influence on the environment and the possibility to add something to it themselves. These feelings will lead to more social interaction, since the users will feel more connected with each other and more at ease within their environment. Social interactions can be conceived with a business perspective (collaboration), but even on a more social level (livability of the area) [p10][p16].

The installation could be embedded more generic as well - within other working areas -, as a consequence a customized service has been developed.

STRIIP-T-TOGETHER is seen as interesting, funny, well thought and substantiated. There has been agreed upon involvement within an upcoming project at STRIIP T. [p34]

Future proposal

The customized service and hence STRIIP-T-TOGETHER offer opportunities for future work.

Primarily testing is the installation for a longer period is necessary, to verify if there is a shown difference in social interaction before, while and after using the installation. There should be elabo-

rated on the quantitative evaluation of the concept as well. At this moment some conclusions are based on the mapped results of the ICS scale, which normally should be combined with a more extensive scale. The participant within the quantitative evaluation were representative as a target group, but the results would be more reliable as more people would have participated. An interesting research aspect would be the influence on the feeling of connectedness with each other by noticing the addition of others to your own input.

As regards the customized service, the aspect of distributing the platform to the people who are working within an area should be deepened out more. A bunch of images to trigger people to participate should be designed and evaluated. Perchance the triggers should be assigned towards a specific working area [p34].

There should be paid attention towards a business model, since there has been agreed upon involvement within an upcoming project at STRIIP T.

the project reflects my identity as a designer and vision on design

I want to find depth and expertise within user involvement and social cultural awareness, since this captures my interest and strengths as a designer. I am willing to set the focus on social relevance and experiment with new user research techniques during the project Design for social interaction in public spaces' Personal Development Plan B3.2, Joes Janmaat

In general, social design and user involvement mark my projects. A design should be created from a specific need or desire of a user, that is why involving the user in the design process is crucial. User involvement ensures to focus on what is really needed, instead of what we, as designers, assume is needed.

These aspects are shown within this current project clearly as well. I was able to apply previously acquired knowledge and tools (e.g. co-reflection [p34] and the People Value Canvas [p26]), but even got known with new ones as desired in my set goal for this project. For instance, I experimented with doing quantitative research by

using the ICS scale [p32]. My previous practices in user involvement are merely on a qualitative level, which made it very useful and interesting to practice with a more quantitative approach. Analyzing the mapped results of the quantitative evaluation was found quite difficult; what to compare to each other and when is a result reliable? I should and I am willing to elaborate on this start during my master Industrial Design definitely. I noticed to be very specific on what to evaluate, this helps to select a proper method. Using both a qualitative and a quantitative approach has been experienced as valuable; quantitative results could be used to underpin a qualitative insights for example.

'I want to maintain development in my less preferred competency areas (Descriptive & Mathematical Modeling and Integrating Technology) to ensure the required development' Personal Development Plan B3.2, Joes Janmaat

I know what I am capable of and - at least as important - I know my limitations and how to overcome them. By constructing and maintaining a network of people with different expertise I am

able to pursue things I would not have been able to myself. For instance, this is shown with the cooperation with Kees Hendriks on prototyping the technical side of the concept [18]. This cooperation has been valuable to explore methods on communicating with someone from another discipline. By being responsible for a part of the technical side of the concept [p28], developing the service [p40] and by analyzing the quantitative concept evaluation [p32], I was still able to maintain the desired development within the areas of Descriptive & Mathematical Modeling and Integrating Technology.

I start to feel confident on how to run different design projects increasingly. I am able to define and perform an appropriate design process within a certain project, which is shown within this project as well [p10]. Let it be clear that still a lot could be discovered within this area. For instance, this semester I became convinced by the approach 'designing through making' by developing the platform by prototyping [p28]. I am satisfied with this project, because the process and the results of the project reflects my identity as a designer and my vision on design.

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Experts

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Expertise: gamification
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- [12] Yu Zhang, PhD department Industrial Design, TU/e
Expertise: installation design
- [16] Sascha Raayman, social psychologist
- [17] Rob van Bokhoven, ProNorm
Expertise: projection
- [18] Kees Hendriks, student Informatics, TU/e
- [26] Bob Goevaers, director Goevaers & Znn., owner STRIIP T

Other

- [1] Centraal Bureau Statistiek, statics on average Dutchman
- [2] Organization for Economic Co-operation and Development, statics on work behavior Dutchman,
- [5] 21 Balançoires by Daily Tous Les Jours
- [22] HULP, institute for supplemental training, Eisenhowerstraat 37 Hoogeveen
- [23] MOED, building where different medical institution are established, Limburg van Stirumstraat Hoogeveen

Design for Social Interaction in Public Spaces

– A TU/e DESIS Lab project *

* Partially to be executed in China, in cooperation with students from Jiangnan University

* Students are expected to travel to China during the SDL weeks.

* About the TU/e DESIS Lab: <http://desis.id.tue.nl>.

Abstract

The design challenge in this project is to find ways to design a physical locus of interaction, a specific, physical device that opens the 'digital' action possibilities of a city to the physical. While the context is the city, it is up to the designer focus the design challenge within that context. The big challenge of course is to let a 'generic' device grow into different meaningful forms and shapes dependent on the context of use, or the specific location in a city. Operationalize the concept of context dependent action possibilities.

Main competency development targeted in:
IC; IT; SCA; FS.

Targeted blocks

B3.2; M1.1; M1.2.

Introduction

System and service design is a new challenge in the field of Industrial Design. It breaks the 'one person – one product' dictum in favor of a system of (interactive) products

consisting of many 'nodes'. The systems under investigation are woven into the social fabric of our lives and form, more than ever before, an integral part of it. Societal relevance is not optional but a necessity for this new field of design.

Currently the cities around us are coming to life in the digital world. How this digital city becomes meaningful to us remains to be seen but the first signs point towards visual solutions that augment the buildings, bridges, statues etc. in the cities with large projections and displays. The augmented layer can be used as decoration, but also as public media where the social interactivity can kick in. The augmentation can happen on existing structures, but also can be an integrated part of design when it is on the drawing board. You are encouraged to find new areas for this system to grow in, within the limits of the design challenge.

One of the ways to approach it is for example interactive public art installations. The current development in digital public arts involves a significant amount of new carriers in not only material, but also in technology, resulting new dynamic and interactive

forms that require the artists and designers to construct their work from a system view and with a good understanding of human-system interaction and related interface technologies. It is no longer about carving stones and casting bronze; it is time to sculpture the interactive experience.

The design challenge in this project is to find ways to design a physical locus of interaction, a specific, physical device that opens the 'digital' action possibilities of a city to the physical. While the context is the city, it is up to the designer focus the design challenge within that context. The big challenge of course is to let a 'generic' device grow into different meaningful forms and shapes dependent on the context of use, or the specific location in a city. Operationalize the concept of context dependent action possibilities.

Design challenges or research questions

Inspired by the theory of affordances (ecological perception) and phenomenology that identify that the (physical) world is a meaningful place and that focus on the lived experience we want you to focus on meaningful and rich interaction. Think 'morphing' shape rather than changing graphics; think physical controls rather than touch screens; think specific rather than generic;

Stakeholders

This project is expected to be executed in cooperation with students from School of Digital Media, Jiangnan University, at the Center for Social and Cultural Computing in Taicang, China. Selected students will be travelling to China during the SDL weeks, working together with their Chinese team

members. The travel cost will be partially funded, and the accommodation will be fully covered.

Center for Social and Cultural Computing
Science and Education New Town, Taicang, China

School of Digital Media, Jiangnan University, Wuxi, China
DESIS Network. <http://www.desis-network.org>

TU/e DESIS Lab. <http://desis.id.tue.nl>

Joep Frens is an Assistant Professor in the DQI group. He is interested in designing for growing systems and in design in general. You might know him of the cardboard models that he makes.

Jun Hu is an Associate Professor in the DI group, and a Guest Professor at School of Digital Media, Jiangnan University. His current research activities are directed towards Design Research on Social Computing.

Mathias Funk is an Assistant Professor in the DI group, focusing on remote data collection and adaptive systems, but enjoys working 'out of control' with technologies from sound/video processing to the web. He is also co-founder of the TU/e spin-off UXsuite. In this project, he is most interested in the way people interact with and take ownership of a growing device, but also how the device has an impact in a network or system of such devices.

Summary on habits of people, working in the creative sector in STRIJP T

Method: I observed the to-be-creative-sector-area in STRIJP T for two whole day and was able to interview 3 persons on their habits and mood during their working day.

There are not yet a lot of people working (in the creative sector) in STRIJP T, since this is an upcoming area. There is a possibility to create/stimulate new habits for the future STRIJP-T workers; for example to have your lunch at the plaza.

Because STRIJP T is just used as a area to work in, there is nobody on the streets during the day. I defined the time slots people are going outside of their working places/do not focus on work before:

- to go to your work
- to have lunch
- to go back home

The lunch is often seen as the only time in the day to relax and to not be in a hurry.

There are more timeslots possible that people go outside of their working places/do not focus on work. This depends on the workload and if somebody is a smoker. 'Sometimes we play some football, if we need a break because we cannot concentrate anymore' - intern de-

sign company.

When people go to their work/go back home there is no interaction between each other, this depends as well on the fact there are not that much workers yet in these area → there are not that many persons on the streets at the same time. Everyone is in a rush to start their workday and is thinking about/planning their day already. When somebody is going home, he is in mind already busy with his planning of the evening or next day and feels tired, because of the working day he had. Working hours does differ time after time; it depends on the workload.

There is no strict lunch time maintained, this depends on the planned work for that specific day. This also applies to the length of the lunch. Halfway the spring they have their lunch outside, till halfway autumn. 'I have my lunch outside when it is not freezing' furniture designer. An interesting difference is seen in the lunch habits between having lunch at their working place or outside.

Lunch at working place: no fixed place and nobody joins the lunch.

Lunch outside: fixed place, sometimes known persons (for example neighbors) joins the lunch

link: <http://www.youtube.com/watch?v=eVAuBOiUMFg&feature=youtu.be>

IF YOU EAT YOU ARE IN

Script digital demo day dmv letter pasta en stopmotion

Heel veel letter pasta op de tafel in een bult: vegen met handen letter bij elkaar totdat er staat: stimulate social interaction within STRIIP T by what the solidarity and livability of the neighborhood should be improved. : My design challenge is to stimulate social interaction within STRIIP T by what the solidarity and livability of the neighborhood should be improved. As shown with the noodles: by bringing together the right components a result greater than the sum of its parts could be created.

Eerst heel Eindhoven uitgeknipt, dan strijpt t afmeting erop leggen, daarop een fabriek met twee pijpen en een lamp er uit. Daarnaast de afmeting op strijp s leggen. Let's focus first on STRIIP T, this is a rising environment for high tech and manufacturing industries next to STRIIP S.

Fabriek met pijpen weghalen, afmeting yard gebouw en ander gebouw neerleggen: I will focus on the small companies in the creative sector, which will be located in the Yard and this building.

Pasta letters : solidarity en livability in beeld schuiven: Going back to solidarity and livability.

Knuffelende mensen, heel veel mensen bij elkaar, iemand geeft een bloem aan de an-

der: This is about the feeling of connectedness, feeling being part of a community or social network. That we are of value to the other and vice versa.

Hart met bliksem schicht omhoog, loop neerleggen, daarop huis neerleggen met bliksemschicht omhoog. It is about improving the quality of life by focusing on the quality of living.

Huis wegschuiven en daarvoor bedrijf van strijp t met twee torens in de plaats. In this case working.

Poppetjes met spreekwolkje met daar, Spreekwolkje met vraagteken eruit, twee mensen high fiven elkaar, poppetje met benen omhoog: en dan papier er overheen trekken met: it should be worth working there mooi geschreven: Important aspects are contact, having interest, socializing and relaxation. It should be worth working there.

STRIIP T weer tevoorschijn halen .There should be a social place/hang out spot within STRIIP T, where you have the chance to decompress and not only focus on work for a little while. This place should function as a solid base and a tool for cross-fertilization within many creative disciplines as well. Let's call this place the plaza.

Plaza op goede plek neerleggen met bomen, dan mensen er om heen met pijlen en voetstappen die naar plaza leiden, groepje laten vormen op het plaza door de mensen : When the plaza is realized the people should be triggered to go there and

to interact with each other.

Fiets met draaiende wielen, boterham, auto met draaiende wielen. : The periods people could go outside of the buildings are when they are going to work, during the lunch and going back home. So we could state idyllically for using the plaza 'If you eat your are in'.

Stoelen op plaza zetten. Poppetje op stoel 1. Poppetje op stoel 2, stoel 1 draait. Poppetje op stoel 3 zitten, stoel 1 en 2 draaien. Praatwolk bij plaatsen.: The first concept is inspired by Gaudi's famous couch in parc guell. 'never show your back to someone'. Imagine, chairs are placed in the plaza. User A is enjoying his lunch on this chair. When user B will sit here, the chair of user A is turning automatically in a way user A does not turn his back to user B anymore. When user C enters the plaza and sits here. The chairs of user A and user B are turning in a way the users has an open attitude towards user B.

Abstracte vogels komen binnenvliegen en nemen hele beeld in beslag: The position of the chairs relate to the number and position of users, it can be seen as a kind of swarm intelligence.

The second concept is about meeting in space across time.

Spiegel geplaatst op goede spot, klok staat op 8 uur persoon 1 loopt langs (reflective van bomen en strakke gebouwen van strijpt t en plaza te zien in spiegel). Klok verschuift 5 min, Persoon 2 komt langs, en

APPENDIX C | SCRIPT MID TERM VIDEO x

wordt gevolgd in spiegel door persoon 1: A huge intelligent mirror should be placed on this spot. User A is walking by and sees the beautiful environment she is working in. User B is passing the mirror 5 minutes later. His reflection strikes him, since it is the reflection of User A instead of his own.

Lange pijl naar plaza waarop allerlei mensen gezel met elkaar socializen (tekswolk met voetbal) (tekstwolk met een lamp er in productdesign) This triggers him to have a lunch at the plaza, to meet up with people who are working in this area as well.

Cirkel: veel mensen bij elkaar productdesign boterham productdesign twee poppetjes met pijl er tussen productdesign bliksempijl omhoog en productdesign dan lange pijl tegelijk ook naar veel mensen bij elkaar Through cultivating a network of 'locals', I hope to catalyze social changes as eating you lunch together at the plaza, that will stimulate social interaction and improve the livability and solidarity of STRIIP T.

Geschreven if you eat you are in met pasta letter daarna alles weer op een hoop schuiven (afsluiten zoals het filmpje begonnen is)

Introduction

The core assignment of these three weeks revolves around the concept 'Interactive Patina of Culture' (IPoC). The concept of 'interactive patina of culture' (IPoC) is a multi-layered concept, let us explain it by briefly unpacking the elements that make up the concept.

A patina is often understood as a trace of repeated use. The stem of a hammer acquires a sheen, a polish of repeated use by a carpenter. This polish tells a story about how it was used.

Connecting the concept of 'patina' to 'culture' changes the meaning of it. We posit that culture 'rubs off' onto the artifacts in use. That is to say the artifacts in a culture are shaped by the values of that culture; they are part of the patina of culture. This is best elucidated by an example: during the previous workshop we felt intrigued by a particular rolling pin in the kitchen section of a local supermarket. A few days later one of the Chinese hosts asked us which variant of rolling pin we were so interested in, and explained that different varieties of rolling pins exist that have different thicknesses and lengths and these properties are instrumental in the type of dough that is cre-

ated when using them. To us this told stories about how the way that food is enjoyed has influence on how it is made. The values of a culture are expressed in the artifacts that it produces.

Connecting interactivity to the concept of 'patina of culture' extends the concept further but not in ways that we can immediately predict. This is for us the challenge for exploration as it extends the concept of 'patina of culture' beyond the artifact into new territories where the dynamism of culture is opened up and explored and where cooperation is both a mechanism to come to insights and a result.

Assignment

Following this line of reasoning we put forward the following assignment to explore further and elaborate the concept of IPoC:

Design an interactive installation that engages the public in the act of transforming a nondescript public space into a classy dwelling. It lets the space meaningfully grow by the interactions with the public. These interactions range from the intentional to the implicit behavior. Thus the public is instrumental in growing a

valuable and thus socially meaningful public image of their city deeply rooted into the culture of China.

We seek inspiration in the dynamic arts for this assignment. Theories and techniques from drama, film, opera and contemporary art offer an interesting perspective on the design of interactive experience design in public spaces. Participation in an interactive experience, especially when it comes to happenings in public spaces, is about: what one does is experienced by someone else, and that the others are seeing and experiencing that one is experiencing something. So, the participant of an interactive public art installation is more than a passive user. Participating in creating and interacting with a public art installation is about transferring roles among the roles of operator, performer, and spectator at any time. On many occasions, participants are both operating and performing, and one is also a spectator of actions of the others.

No installation	Installation with own input, without reacting on others	Installation with own input, with reacting on others	Not interactive installation
Methods: observations + questionnaire & ICS scale + in depth interviews	Installation: start app (nobody else had input before you had) Methods: observations + questionnaire & ICS scale + in depth interviews	Installation: use app after input of someone else Methods: observations + questionnaire & ICS scale + in depth interviews	Installation: video of what others did before Methods: observations + questionnaire & ICS scale + in depth interviews

Omcirkel hoe u uzelf gepositioneerd voelt ten opzichte van de community om u heen . De cirkel met de 'U' ernaast staat voor uzelf, de cirkel met de 'C' ernaast staat voor de community om u heen. De community kunt u beschouwen als bijvoorbeeld alle mensen mensen binnen dit gebouw.



Omcirkel hoe u uzelf gepositioneerd voelt ten opzichte van uw omgeving. De cirkel met de 'U' ernaast staat voor uzelf, de cirkel met de 'O' ernaast staat voor de omgeving. De omgeving kunt u beschouwen als bijvoorbeeld het gebouw waarin u zich nu bevindt.



Evaluate: Trigger to join + shapes of the building used

Co-reflection is an approach to user involvement that allows confronting the designer's rationale with society's motivations and values. This approach is specifically tailored for design processes aimed at societal transformation. In this approach, user involvement is considered as a constructive process, rather than a destructive process.

This specific research project presents a co-reflective session that combines physiological measurements and psychological explorations and can be used in different stages of the design process. It explores users' subjective experience and can be used for exploration of the context, inspiration during the design process and validation of the prototypes.

Exploration

Reenacting the experience: use mock up exhibition without triggers to use shape building + to join projection. Play with it and tell what you experience. Ask questions/direct to: would you join this? Would you use shape building? Where to apply?

Ideation:

Fantastic storytelling: brainstorm on what to use to trigger people to join / trigger to use shapes building + possibilities to make installation more interesting

Confrontation

Build upon a vision: present my trigger to join + to use shapes building. Acting out + discuss + brainstorm on how to improve.