

Module Report

Persuasive Technology



Luc Hermans, Jeroen Rood and Marleen van Bergeijk
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Module Report

Persuasive Technology

Welcome to our module report on the one-week module 'Persuasive Technology', lectured by Tilde Bekker and Harm van Essen.

In here you will find our final (persuasive) concept, an overview of the process of combining theory on persuasion with design and our personal reflections on this module.

Here is a link to our concept movie, that will help explain the concept and our persuasive intent some more.

<https://vimeo.com/121451751>

Module Team

Luc Hermans,

Jeroen Rood and

Marleen van Bergeijk

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CHAPTER 1

OUR CONCEPT.

Persuasive intent

The chosen design case is about persuading people to engage in social activities for a sense of bonding and connectedness. on the workflow. During this short 'project' the design intent was formulated as follows:

“Can we persuade staff members into meeting socially in the ID Café throughout the working day?”

When looking at the Changing Behavior FAR/ABC model (Kukkonen et al, 2010), this intent is to Alter an existing attitude with a new attitude.

Altering a particular attitude is a quite a big change and cannot be done at one moment and should not be too intrusive or it will create a counter effect. For this reason, the design should be subtle and need to change the behavior over a longer period of time. When looking at the Classification of Influence (Tromp et al.) the design is Persuasive.

For the design it is important to know which context and users are involved, which will now be discussed.

CHANGE →

| | Complying | Behaviour | Attitude |
|--------------|-------------|-----------|----------|
| ↑ OUTCOME | Forming | | |
| | Altering | | |
| | Reinforcing | | |

> Table 1 | Outcome - Change Design Matrix (based on theory Kukkonen et al. 2010)

Context of Use

The Ludic Bar is housed in a general space with Lucid, and functions as the ID Café throughout the day. This is originally meant to be a meeting place for students and staff.

Currently, the staff is not aware or attracted to go to this space for various reasons, which is a problem. Our concept uses the ID café as a

place to meet and we want to make it interesting for staff to go there. The important question is, why does staff not go to ID café for a break?

To answer this question, a persona is created to investigate what the reasons are and how the design can hook into this.



Persona

Prof Ir. Albert is a busy man; being employed by the university, his main occupations are performing research, giving lectures and coaching students. This is a demanding job, and he feels

greatly responsible for this.

His agenda is determined by many work-related activities on the university, and as an employee, he invests all of his time throughout the working



Prof Ir.
Albert

day into these activities.

When thinking about ID Café, Albert mainly relates this place to Lucid. He is not a member of Lucid, and does not have a coffee subscription, so he does not quite feel a connection with the student organization. Hence, he thinks that the ID Café is not a place for ID staff.

Albert has his own office, where he works all the time. As a result, he mainly leaves his office for coffee, toilet breaks, lunch with his fixed lunch group and his meetings.

Although he knows that taking regular breaks is good for him, and he is aware of the value of socializing, he does not actively plan in extra breaks or moments for socializing.

Reasons for Albert to visit the ID Café:

- He likes coffee
- He likes to get in touch with students and colleagues

Reasons for Albert NOT to visit the ID Café:

- He feels little to no connection with Lucid
 - The sense of responsibility for his works makes it harder to consider extra moments of social contact or extra breaks
 - He feels that the Ludic / ID Café is a place for students, as it is closely connected to Lucid. In that sense, it feels awkward to go and have social breaks with students in a bar that is presumably for students.
 - He thinks that he has no time to for extra social moments throughout the day.

His persuasion level is **high**; he requires to be persuaded with quite some effort to make him engage in more social moments throughout the day in the ID café.

Concept

When looking at the context and target group the design is focusing on, the eventual concept IDsocial is developed.

IDsocial is a mobile self-tracking application on how social you are. You can set, manage and track your social behavior. The user creates his/her own set of goals. Namely, how much time each day you want to be social at work and how frequently. By giving suggestions on what is recommended, users can be pushed

in a certain direction and work towards it. The application is connected to the ID Café. The ID Café is the 'social-spot' where the user earns social time, which helps to reach his/her goal.

The application forms a supportive way to let people learn more about their own social activities. It helps them to develop a more healthy social environment on the work floor. It connects people in the ID Café making use of their own intrinsic motivation.



> Img 2 | IDsocial app screens, left: login; middle: set-up page; right: overview of social statistics

Design Rationale

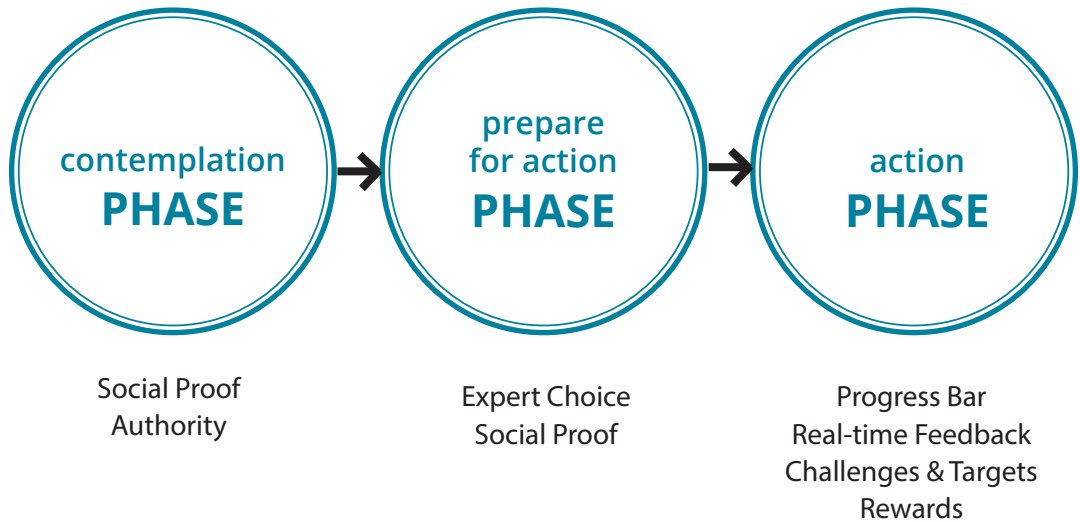
The concept is developed through different iterations. In these iterations different theories and frameworks were used to develop the concept and the reasoning why this concept fits the persuasive intent.

The theories and frameworks that were used are the Influence theory (Cialdini,1981), the Design with Intent framework (Lockton et al., 2010), the Trans-theoretical Model (Prochaska, 2002) and Elaboration Likelihood Model (Petty et al., 1986)

IDsocial uses the intrinsic motivation of people to achieve goals, especially their own. Users need to feel it is their own choice in order to accept that their behavior needs to change.

The app supports them in the various phases of the process described by the Trans-Theoretical Model from contemplation to action and uses different incentives to establish this. These incentives are based on the Influence and Design with Intent theories (see table below). This will be elaborated further upon in the process discussion.

| Incentives | Used in Concept | Process Stage |
|----------------------|--|--------------------|
| Expert Choice | Suggestions as a guide for setting goals. | Prepare for Action |
| Social Proof | Connect preferences and friend network to establish a certain comfort level. | Prepare for Action |
| Progress Bar | An interactive interface that shows your progress | Action |
| Real-time Feedback | Constant measurement, periodically notified. | Action |
| Challenges & Targets | User creates own targets to reach, creates eagerness to continue. | Action |
| Rewards | Extrinsic motivation for later stage. To keep users engaged in the action phase (for example: special events, free coffee etc.). | Action |



> Fig 2 | How we implemented the Trans-Theoretical Model

PROCESS DISCUSSION.

Iteration 1

The six key principles of influence by Cialdini were chosen as a starting point for generating a first iteration. It proved hard to convert the knowledge from psychological theory into a concept. In addition, the theory was more of an informative framework with a focus on marketing. This made generating a persuasive behavior-changing concept quite a challenge.

The first concept is aiming at attracting people in the IDCafé, for stimulating social interaction amongst staff members and students of the TU/e and taking a coffee break whilst socializing. The concept is a screen which shows a faulty livestream of the IDCafé, implying it is busy.

The goal of this live stream was to attract people into the IDCafé, which is based on sparked interest into what is going on in the live stream.

// Influence Principles

The six key principles of Influence by Cialdini give an impression on how humans are susceptible to various factors that influence their decision making (Cialdini, 1987). From the book, three principles are most applicable to the first iteration of the concept: liking, consistency and social proof.

Social Proof

Cialdini states that the social proof principle is about being influenced by what others do (Cialdini, 1987). It is related to the concept in a way that decision making about visiting the IDCafé can be influenced by the giving the impression it is crowded. We tend to use similarity as a condition to persuade people to go to the bar, because you see that your similar others are drinking coffee downstairs.

Liking

The second relevant principle is liking.

As defined by Cialdini (1987), people can be persuaded by associating to what they know and like. As socializing and taking coffee breaks is mostly experienced as enjoyable, visual (and auditory) cues of these activities appeal to the people which might attract them to the IDCafé.

Consistency

The third principle is consistency, which Cialdini describes as a “valuable shortcut” since people desire to “look consistent in their words, beliefs, attitudes and deeds” (Cialdini, 1987). By placing the live stream in a central place like a corridor, it will become part of their daily routines (getting coffee, going to the toilet, walking to the printer). By appealing the people in their daily routines, it will become a habit in their daily routines to think about social moments, and potentially engaging into these moments.

After presenting the concept, there was some feedback on the concept from the first iteration.

// Feedback

First of all, the impression of a crowded IDCafé might be wrong, and the expectation it elicits might not be met. This can result in a disappointment, and distrust in the concept.

On the long term, nobody might be interested into the screen anymore, as they know they are being tricked. So the signal which is sent to the people should be more subtle.

Not everybody wants to join in on the social breaks for the same reason. This shows that the connection with the personas is not very strong in the first iteration. As a next step, the concept should be more integrated with the personas to find different triggers for people to be persuaded towards our goal.

The persuasive goal of the concept was too broad and abstract (engaging people into social moments throughout the working day). It should be narrowed down to a specific context, of which the IDCafé shows potential.

Generating a concept based on principles that are most applicable to marketing made the persuasive efforts feel manipulative and commercial. This was the main difficulty while generating the concept. This led to advice about viewing the principles as a tool to get to the optimal usage situation.

Iteration 2

The concept was redesigned into a persuasive app. As the intent was narrowed down to persuading staff to engage into social moments in the IDCafé, the app focuses on setting goals for having social moments in the IDCafé. An app is more intimate, and closer to the personal space (a screen in public space is not constantly effective). In addition, the experience can be more personalized.

The personas were improved. Instead of describing characteristics and personal details, the personas focus on why they would visit or would not visit the IDCafé for social moments throughout the day. This strengthened the connection with the concept, and helped in making design decisions about the concept.

// Design with Intent

The 'Design with Intent' theory offers eight 'lenses' that can be seen as perspectives on the world. Some of these lenses are more from a "mind" perspective and others are more formed from the "environment".

Between the different phases the steps are relatively small to take. So views occurring from the mind are

quite further away from views from the environment, in terms of how they relate to each other. The most applicable lenses are the cognitive lens, the ludic lens and the interaction lens. Each of these lenses consist of principles, which can be used for making design decisions. They are described hereafter.

- (cognitive) **Expert Choice** is about showing users choices from an expert or authority figure. This would influence their decisions. The app suggests that it is important to have 1 hour of social contact each day. This importance is on the advice of experts, which gives the users a push in the right direction.

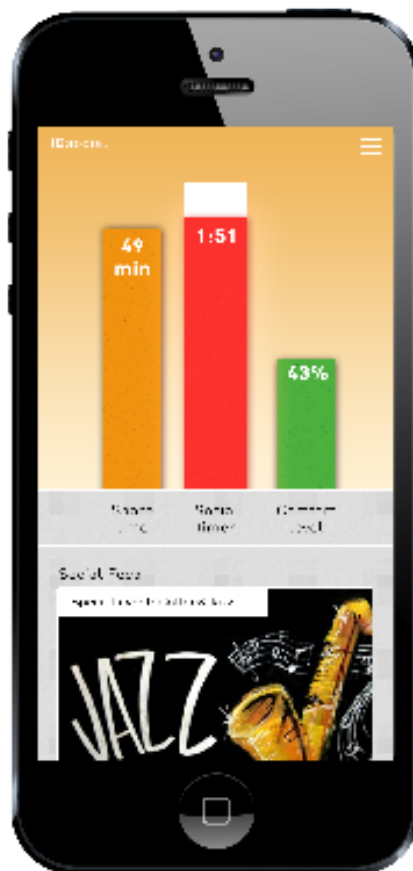
- (cognitive) **Social Proof** is about showing what other -similar- users are doing in a similar situation. People might base their decision-making on this, as they tend to go for the most popular decision. With the concept of the app, the user can see how much "social needs" others have and others can see the user's 'social need status' as well. In this way you can see what others are doing. The user receives notifications on percentages

that match with others, so he/she will feel similarity between you and another user of the system.

- (interaction) **The Progress Bar** principle is about showing the user his/her progress towards reaching a goal, which gives motivation to endure. In the app, the user sets his or her own goal, and works on achieving it. Because of setting the goal by himself/herself, the user is determined to reach this goal. This progress is directly visible in the app, and the user get periodical notifications on the progress, which creates awareness on how much it takes to still achieve the goal.

- (ludic) **Real-time feedback** lets users know what they are doing, and how it affects the system. The app provides various types of feedback throughout the day and keeps monitoring your social activity. The spare time bar indicates how much time is spent on off-work tasks. It is linked to the goal that is set by the user, and shows how much time should still be spent to achieve the goal. The social timer is a timer which indicates how much time is left before the next social moment should be engaged. This timer persists periodically, so it reminds the user about social activity. The comfort zone bar shows

how much the current situation in the IDCafé aligns with your preferences: quiet or crowded places, how many friends are present etcetera.



> Img 3 | The different bars that represent the personal settings and real-time feedback

- (ludic) **Challenges and Targets** is about defining a new goal in people's activities. The app makes people set goals which creates a commitment.

This goal remains flexible, as the user can adjust it. The app suggests to increase the goal if it is met successfully, but the user can also adjust the goal to his/her own needs.

(ludic) Rewards are gifts to the user to stimulate the desired behavior. This is facilitated with the app by sending invitations for special events or by rewarding with a free coffee for reaching your social interaction goal. It adds a new layer to the persuasion, as it keeps the users motivated on the longer term.

// Feedback

Social Proof

Social proof could be enhanced by showing the user that his friends are inside the bar at that moment, this make the “comfort level” of the social spot even more personal and inviting for the user.

Trans-theoretical model

This model, which has ‘change over time’ as an important feature could be interesting to look at as our Social App can be brought in the perspective of time which will allow us to create more depth in our designed interaction. Applying this model will also result into new design decisions.

Personas and app settings

Do the professor persona and the student persona have different account? Are the things they see in the app different because they have a different status since they logged in, or do we distinguish everybody solely based on their personal settings?

Timing of an interruption

When working with interruptions (notifications) throughout the day, you could take into account that the interruption comes at a time when the user is more receptive for the social suggestion. In this way the persuasive intent of the notification will more likely be effective.

Rewarding data

What if you are rewarded with relevant data. Example from the physical action case: you will get a score of your blood pressure rather than a game score. In this way the data is of more value to the user also in relation to the intended goal / behaviour change.

Less positive uses / risks

What happens if the user makes an error or interprets something differently from how the designer has intended the design? It could be interesting to look at these situations because you could find ways to

design in order to prevent these situations from happening.

Iteration 3

More theory was applied to the concept for introducing a time element into the usage of our concept. It allows for mapping all the moments in the usage scenario, but it also increases depth into the process of changing behavior. Two more theories were applied: Trans-theoretical Model, and Elaboration Likelihood Model.

// Trans-theoretical Model

The Trans-theoretical Model is a model which expresses behavioral change through stages. The stages describe to what extent behavior is changing, and to what extent persuasion is required. The concept IDSocial focuses mostly on the contemplation stage, the prepare for action stage and the action stage.

Contemplation Stage

The contemplation stage is about the intrinsic motivation that the persona has. He/she knows social interaction has several benefits. IDSocial targets

these people, and in this phase, the users will be introduced to the app.

Prepare for Action Stage

The prepare for action stage is about persuading the persona into using the app. It stretches from seeing the importance of social interaction to being introduced to the app to installing the app and setting up the app. He/she will have to get motivated to start using the app, so a first incentive is important. Introducing a piece of advice which is part of the Expert Choice principle in both the Design with Intent framework, and the principles of Influence. For more repetitive usage, the intrinsic motivation is more important, as it determines the extent to which the app is taken seriously, and advice is abided. That is why the persona has to set personal goals of which he/she thinks it is good for him/her.

Action Stage

The action stage is about keeping the user motivated for continuous usage on the long term. In the first moments of use, the persona will have to get used to managing a planning in combination with achieving the social interaction goal. This learning experience will mean a change in expectations and in motivation. It can reinforce the intrinsic motivation.

Assuming the persona discovers the benefits of social interaction, the intrinsic motivation will change from fulfilling goals within the app to maintaining the social interactions throughout the day.

In this stage, the app will fade to the background, and the social interaction gradually becomes a habit. The app will add extra value to this habit by introducing rewards that relate to social moments in the IDCafé, like a free coffee. This way, the behavior change will be facilitated more in the action stage.]

// Elaboration Likelihood Model

The Elaboration Likelihood Model explains how the subject of behavioral change can go through a process of changing behavior.

There are two routes: the central route and the peripheral route. The central route results in the most direct behavior change. It works when the subject responds to the persuasive communication, is motivated to comply with it, is physically and mentally able to comply with it and can reflect on this change-of-directions. This model was mostly used for relating to the

iterative process of social activity throughout the day. Whenever the person succeeds in engaging in social activity, the behavior directly changes in favor of becoming more social. If the person fails, he enters the peripheral route. On this route, there is no direct change, but indirect cues and a shift in attitude (“I want to do better next time”) can contribute to entering the central route again, in favor of changing behavior.

It explains the process of failing and rising up again. This requires the app to continuously show statistics, as the peripheral route requires external cues to get back to the central route. The intrinsic motivation can return after statistics show that the goal has not been reached, resulting in a shift in attitude to get back to the central route.

// Expert Meeting Feedback

On Friday the 6th of March we met with Hanneke Hooft van Huysduynen to discuss the persuasive level of our concept and the process of the past week. Here we will shortly describe the feedback we received.

Intrinsic and extrinsic motivation

In our concept explanation we focus strongly on the intrinsic motivation of the user which is translated into goals. However, we also mention strategies such as 'rewards' as a persuasive trigger to (continue) make use of the system.

In our current communication intrinsic motivation and extrinsic motivation are opposing each other (even though they could well be implemented at the same time). This is a point of communication we can improve.

The lasting trigger

An interesting question we can still ask ourselves is how the intended behaviour can be maintained. How can our users make it their own behaviour to such an extent that the phone and the reminders are replaced with the new adopted behaviour of the user.

Social Proof

The social proof aspects of the concept seem promising and the most effective principle in this situation from Cialdini's Influence principles. The social proof

elements can be emphasized to make their persuasive influence more effective.

Persuasive intent vs. Context

In our concept we could be more specific as to how we build in the context of the ID Café into the context. Now the only 'reason' to have a social moment in the ID Café is because of the connection with the sensor and your statistics will not be influenced by being social in the regular canteen. We've covered the persona part of influencing their behaviour yet we could also make the ID Café, so the context itself more attractive by adding persuasive elements to the context itself, instead of only the trigger of visiting the place.

Digital vs. Physical

We had an interesting discussion on how a lot of principles direct towards persuasive triggers via screens and the user's cognition. Hanneke explained how these persuasive strategies can be applied in a physical and psychological sense as she is currently exploring in her PhD.

Evaluation of Persuasiveness

We will evaluate how persuasive our design is, according to the key issues mentioned in 'Persuasive System Design: Key Issues, Process Model and Systems Features' (Oinas-Kukkonen et al. 2009). They are mentioned as the postulates behind Persuasive Design and we will reflect on how these postulates are represented in our concept and design decisions of the past week.

"Information technology is never neutral"

This postulate relates to treating the act of persuasion as a process. Within this process, the user's perception, goals and expectations may vary within the different stages of the process. A persuasive system works optimally when these stages are taken into account.

In our concept: We see the act of making people more able to engage in social activities throughout the workday as a process. In our design we intend to engage the user with the app, let him explore his own capabilities (also relates to self-efficacy) and act towards the new behaviour, while being supported and stimulated by the Social App.

In the end the person should adapt the enforced behaviour and over time it could become part of his own system. In this process different triggers are needed in the different stages of use and behaviour change. Thinking about these stages helped to create nuances in the design, using the Trans-theoretical Model.

"People like their views about the world to be organized and consistent"

When the persuasive systems allows the user to make commitments, the user will be persuaded more easily (Cialdini et al 1987).

In our concept: We tried to build in a way that our user would be committed to a goal that he was able to set for himself. Other influences such as social proof can help to give the user a sense of commitment towards the persuasive system and towards his own goals. Also the notifications will come in a pattern (which is set by the user's preferences), which builds in a form of consistency in the persuasive system. A user will know what to expect and in this way we try to minimize inconsistencies which may lead to disturbance.

“Direct and indirect routes are key persuasion strategies”

This relates to how the persuasive triggers are processed by the user. In the direct manner the user is really thinking about it or even evaluating the trigger, this would be the direct route. When not considering the trigger the user may be triggered using the indirect route.

In our concept: Our app focusses on the first three parts of the route:

- 1) persuasive communication (awareness that something can be changed, yet you do not know how)
- 2) motivation & ability (how motivated and able are you to do something)
- 3) cognitive processing (realizing the behaviour change is beneficial for you)

In the direct route we want people to actively think about their change of attitude, by means of the goals they set. We also want them to remain motivated to engage into changing their attitude, as long as their planning allows this.

Once they get demotivated, or their planning is too busy for allowing social activity the app will still provide the information in the indirect route. The notifications might not be used, but they still provide awareness over

the status of reaching the personal social goal. This might help deciding to pick up the habit where they left. It is this consideration we aim for as indirect attitude change.

“Persuasion is often incremental”

This postulate explains that people are more receptive for being incrementally triggered and reminded to show a certain behaviour than they would be for a single action-suggestion.

In our concept: Throughout the day the user will receive different notifications, based on actual information in the ID Café (when there are optimum conditions in the ID Café for this user) and also based on the user preferences. This real-time data allows the system to adapt to actual situations and support the user with a needed push in the right direction at the right timing.

“Persuasion through persuasive system should always be open”

This refers to being open about the designer’s intent and bias in the persuasive system.

In our concept: The user might not be fully aware of the intent behind the

Social App while using it. We intend to give the user more awareness on their social activities throughout the day and try to actually stimulate these activities to take place. The way the app would be presented to the user (when being introduced to it for the first time) is therefore an important step. They should be informed on the intents of the app and the benefits of installing and using it in the context of the ID faculty.

“Persuasive system should aim at unobtrusiveness”

The system should not disturb the user while being on the right track / working towards the desired behaviour.

In our concept: In our concept obtrusiveness would occur when you would get notifications on being social, while in fact you are having a social moment at that time. We want to prevent this from happening by placing a sensor in the ID Café which keeps track of the moments when you are having a social moment on that location. Getting notifications throughout the day (although you control the frequency in the settings) may be viewed as intrusive. To solve this, the timing of the notifications is important; they should be on an opportune moment. In our current

concept we have not paid special attention to this yet.

“Persuasive systems should aim at being both useful and easy to use”

Like every software system, persuasive systems as well need to be easy to use. When this is an obstruction, this could jeopardize the intended persuasive effect of the system.

In our concept: In this week we did not pay special attention to the usability of the app. By the personalisations and regular statistical update we hope the user will have a sense of ownership that can contribute to a better understanding of the system. We do however understand the importance of the easy-to-use postulate and its direct link to the persuasive effect of a system.

REFLECTIONS.

General Conclusion

This small project was focused on creating a deeper understanding of different persuasive theories by applying them to a design case. Since the sort timeframe of the project, it is very difficult to close the gap between the persuasive intent and the eventual effect the concept IDsocial has. By using the theories as a validation tool, it is possible to argue certain design decisions. This means that it ofcourse needs further development to make sure that gap gets as small as possible.

The persuasive intent was as follows:

“Can we persuade staff members into meeting socially in the ID Café throughout the working day?”

Yes, too a certain extend. The app uses the intrinsic motivation of humans to achieve goals they created themselves. This way it feels like their own choice and this is in our opinion as strong point. The fact that our tool makes suggestions and is a supportive tool to achieve your own goals, will create

another behavior towards social activity.

What is not a very strong point of this concept is the misconception of the principle Authority. It is not effective to make the app ‘obligatory’ by the department, because then it creates a possible counter-effect on how people percieve the app. It no longer feels as their own choice. So introducing the app via social proof and use key-figures as distribution, it will be more likely that staff would accept the app.

Being social is now connected to the IDcafé only. This may cause the effect that people who are social in other places feel obliged to go to the IDcafé in order to achieve their goals. This can feel strange, because then it is not about being social, but just about being in the IDcafé for a while.

In the end it is a good starting point for developing new ways to get people more social in the IDcafé.

Reflection Marleen

Through past semesters I noticed my interest for psychology and behaviour (change) has grown. Therefore I registered for this module as I want to explore this interest and in the mean time grow in my approach of designing with a strong user-focus.

"Intent" is a word that has been used a lot in the past week. Being aware of your intention as a designer is important for the effectiveness as well as the openness of your design. After this week I will make sure to define my intention for my designs and how I can communicate this intention into my design and also towards my users. This week opened my eyes towards psychology and behaviour. It helps me understand that as a designer you are responsible for thinking about the impact of your design. What I address here is making the right decisions on an ethical level, yet also being able to shape your intentional impact which allows you to create effective designs. In this module I became familiar with the theories that underlie the principles of achieving the effect you aim for as a designer and being aware of the design decisions that lead towards such an effect.

The module has provided me with a theoretical base of knowledge that also enriches my intuition as a designer. What has been hard for me this week is thinking from the theory as a starting point towards a concept. In my own design process I would explore the user's context thoroughly and use my strong sense of empathy to realize a suiting design direction. After the exploration of my design context I will address to theory to support my findings and allow myself to make grounded decisions. Therefore, very ironically, thinking from the theory this week, has felt very forced to me, as it was an unnatural fit. However, I now understand these different layers of theory help you validate and change ideas by continuously bridging between theory, concepts and design.

Quoting the core of my design vision: *"I design to make people focus on the positive. I want to take the focus away from incapability or insecurity. I want people to be able to transform these into achievement and pride. With a playful and social approach I believe that my designs can function as the needed push in the right direction. I design the encouragement and support to accomplish things in a joyful way and to become aware of your own strength."*

As stated above my goal is to realize a change of behaviour or perception in the user, with my products being the "push" in the right direction. Before this module I would see my design as "the solution", period. However, now I am more aware of the actual process of changing a person's behaviour let alone someone's attitude towards a situation. This is a process rather than a single action and your design should facilitate this to accomplish this change in the user's behaviour. I can now see 'intention as a designer' and 'the value of your design' as two separate things that have to compliment each other. The realization that a design you introduce into the user's live is always an intervention or adjustment to their current lives helps me to design in such a way that the user is receptive for my intent.

What I noticed during the week is that applying the theory most logically resulted into designs that rely very much on cognition. Getting across a persuasive message can "logically" be accomplished using screens, text and notification mechanisms. In this week such a medium, like our Social App design, served to explore the influence of persuasive techniques. I am however curious how I can apply these persuasive techniques in a physical design or in a more psychological way by influencing different senses (instead of solely having texts that the user interprets). This persuasive influence would be interesting and valuable to explore in future projects.

Reflection Jeroen

I chose the module persuasive technology to get familiar with the principles of persuasiveness. As I am interested in service design and interaction design, I saw the relevance of persuasive technology. Having had experience with peripheral interaction design, I wanted to design more for stimulation and persuasion, rather than just convenience and distributed cognition. In my recent past semesters, I discovered the value of theoretical knowledge in how it shapes me as a designer as well as how it can improve and ground my design decisions. This is why my interest for this module was sparked.

In addition of looking at the ability, the intuition and the reference framework of the user, I now looked at the ability to change attitude and how to use this. At first, it felt like marketing and manipulation, which I found interesting already. But later on, I got to know how you as a designer can use it for the better. From marketing, web design and software interaction design perspective, I find the theories very interesting. I realized persuasion can help me design to stimulate the correct and desired behavior, and possibly change mindsets.

My own mindset for designing a product or service changed. I learned about how persuasiveness can adapt over time. I learned that the attitude towards a subject, a concept or a technology could change over time. The various persuasive tools can convince people, keep them motivated to change, and they can persist the desired behavior on the long term. This is useful for both attitude change and behavior change. I can relate it to easing concepts or technologies into society, but also to the learnability of a concept. A user could learn how to use complex system over time by changing his behavior or attitude. I now realize this was a missing link in my vision, as easing technologies, concepts or attitudes into society

can involve persuasion as well.

Within a week, theories and frameworks had to be combined and used into concepts. In this iterative setup, I learned that theory can serve as a means of grounding decisions. In addition, I learned that it can feed discussion on how to tackle a design problem, and it can provide handles for validating in thought experiments. It also provides understanding on what has already been explored, so the goal for designing can be narrowed down and assumptions can be taken based on the theory.

I can use the newly gained insights, the new knowledge in my project of this semester already. I see how I can guide my users with the principles of persuasion, especially the principles of influence and the trans-theoretical model. As my project can change the attitude of recording memories ("Pics or it Didn't Happen"), I think I can use the trans-theoretical model to envision how the user will be engaged over time to use the product. The principles of influence are useful for stimulating compliance with the attitude change.

Reflection Luc

The focus of my projects are mostly in the fields of social behavior and mechanisms of people. My designs often trigger a behavior change or a re-enforcement of behavior. For a better understanding on how I can achieve these changing behaviors, I wanted to learn more about persuasive design. For this reason I chose this module, because I think that knowing the psychology behind the decisions people make I can create a better empathic understanding of my target group.

This module week gave me a good impression on how design can trigger certain behaviors by using persuasive cues deliberately. As a designer I have the intent to establish a new behavior or change an existing one. By applying theory, you can verify your design decisions. I've learned this week that different parts of your design consist of little cues, which are very important to consider. As a designer I am responsible for what impact my design will have, because all these cues can change the way your user will respond and how effective his behavior will change. For example our first iteration, which used fake images of the ID café, but this would have ended up in disappointment and eventually distrust in your design. So during this module I became aware of how your design can have a very different effect than what your intention was and that the theories and frameworks can help you to bring that effect closer to what you intended to achieve.

The biggest challenge for me was bridging physiological theory towards design. To start from a certain theory and create possible concepts for that was difficult, because it was not easy to translate these theories into design opportunities. In the end of the week I realized that it is more a process of going back and forth between the theory and design. This makes it easier, because you develop a concept and try to verify if this concept is persuasive enough

concerning the theory. I've also learned that a design are not a momentarily thing. The use of the product starts a process of changing behavior and therefore the design should anticipate on this. I never thought of this deliberately in my projects, but it actually quite logical. For me the Trans-Theoretical Model is a very interesting way to see if my design anticipate on my users over time and about the users in different stages. It is definitely a useful tool for my projects.

For the future, I think the most important thing is that you need to be clear as a designer what your design intent is. What new behavior or behavior change are you trying to achieve? Because then you are more conscious in making design decisions and use the new learned theories to support these decisions. I also will use the new gained knowledge to verify the effect and magnitude of your concept and see how persuasive it is.

APPENDIX

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