

# 11 Mind the gap

## A social practice approach to wellbeing-driven design

*Holger Klapperich, Matthias Laschke, Marc Hassenzahl,  
Melanie Becker, Diana Cürlis, Thorsten Frackenhohl,  
Henning Köhler, Kai Ludwigs and Marius Tippkämper*

### Understanding wellbeing is not enough

Human–Computer Interaction (HCI) and Interaction Design (ID) focus increasingly on designing technology in ways to increase users’ subjective wellbeing through interaction (see Diefenbach, 2017). Consequently, a number of models attempt to describe ‘wellbeing’ and ‘positive experiences’. For instance, Desmet and Pohlmeier (2013) provided a ‘framework for positive design [...] that includes three main components of subjective wellbeing: pleasure, personal significance and virtue’. Jordan (2000) distinguished four types of pleasure: physio-, socio-, psycho- and ideo-pleasure. Hassenzahl et al. (2013) introduced an approach based on psychological needs, such as autonomy, relatedness, competence, stimulation, and popularity, which provide ‘potential “sources” of positivity, meaning – and ultimately – happiness, when fulfilled’. Those approaches mainly provide a general mindset, that is, a high-level model of how wellbeing might be best understood in the context of technology design. However, in design the devil is in the details. While understanding positive experience is a good start, this alone does not provide sufficient support to design for wellbeing. In other words, there is a substantial gap between the abstract models of wellbeing in HCI/ID and the concrete design of wellbeing-driven technology.

In this chapter, we suggest a practice-oriented approach to begin to bridge the gap between abstract experiential design objectives and specific products and interactions. We start with a short introduction to our theoretical understanding of wellbeing-driven design and show how elements of social practice theory can inspire a set of practical design-supporting activities. Then, we present and discuss a case study to highlight challenges and opportunities of the suggested approach. Finally, we discuss potential future work and some ethical challenges.

### Linking wellbeing and social practice theory

Subjective wellbeing (i.e., happiness) is essential to people. Lyubomirsky (2007) describes happiness as the ‘experience of joy, contentment, or positive well-being, combined with a sense that one’s life is good, meaningful and worthwhile’ (p. 32). Obviously, this description is too unspecific for design. Furthermore, it is a pressing question how positive experiences are formed, and what role technology might play in this process.

Sheldon and Lyubomirsky (2006) argued that intentional activities are an important source for wellbeing. What people do and how they do it can increase or decrease wellbeing in everyday life (see also Diefenbach et al., 2017). While Sheldon and Lyubomirsky

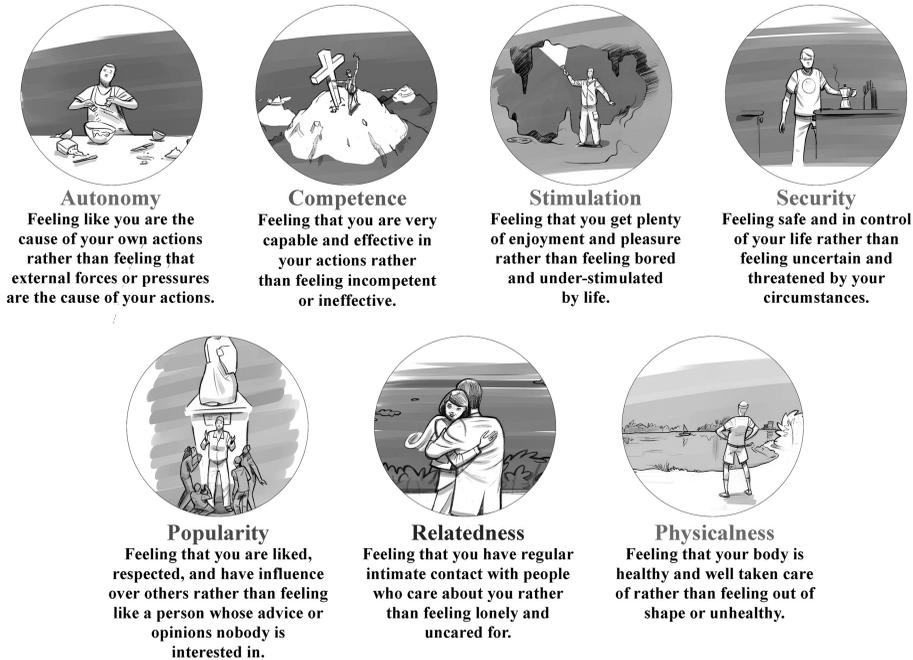


Figure 11.1 Overview of a set of needs.

Hassenzahl et al., 2010; based on Sheldon et al., 2001.

(2006) focused on carefully arranged, intentional, therapeutic activities, such as reflecting on personal strengths or being grateful, we assume that wellbeing is also made through mundane everyday activities (see Huta & Ryan, 2010), such as preparing coffee.

Hassenzahl et al. (2010) introduced a set of needs into HCI and ID (see Figure 11.1). They understand this particular set as a multifaceted lens increasing the comprehensibility of the sources for positivity in everyday activities. Needs offer a valuable way to characterise and categorise positive experiences. They constitute a starting point as well as an objective for design.

Conceptually, in order to provide greater need fulfilment, it seems to be a small step to design for wellbeing by arranging and crafting mundane everyday life activities deliberately (Hassenzahl et al., 2013). Practically, the gap between possibilities for need satisfaction and actually creating specific activities in a fulfilling way is substantial. Moreover, HCI and ID focuses primarily on things such as artefacts and technology. The emerging interaction of people with technology and artefacts could be seen as a way to shape the activity and ultimately the experience. What is needed is an action-oriented framework, which explicitly includes the material as an important constituent of action.

To this end, social practice theory (Reckwitz, 2002) provides a number of ideas which help to bridge the gap between abstract need fulfilment and concrete, situated, everyday use of technologies (Hassenzahl, 2018). First of all, a social practice can be understood as:

a routinized type of behaviour which consists of several elements, interconnected to one another: forms of bodily activities, forms of mental activities, ‘things’ and their use,

a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge.

(Reckwitz, 2002, p. 294)

‘A practice forms a ‘block’ whose existence necessarily depends on the existence and specific interconnectedness of these elements, and which cannot be reduced to any one of these single elements’ (Reckwitz, 2002, p. 250). In this sense, practice theory is an action theory that focuses on the constitution of routine everyday behaviour through ‘shared knowledge, which enables a socially shared way of ascribing meaning to the world’ (Reckwitz, 2002, p. 246).

Based on Reckwitz (2002), Shove et al. (2012) further simplify the notion of a social practice. To them, the practice as a unit of analysis consists of *competence* (e.g., skill, know-how and technique), *meaning* (e.g. symbolic meanings, ideas and aspirations) and the *material* (e.g. objects, tools and infrastructures). Forming a practice is understood as establishing new links between these elements. In addition, if any of those three elements changes or is changed, the remaining elements will change, too.

Shove et al.’s structure is especially helpful from a design perspective. First, it highlights the integral role of the *material* (e.g., technology in the context of HCI/ID) and asserts that practice and material are inseparable. Whether intended by design or not, the particular form of the material will inevitably shape the practice, in the same way the practice shapes the material. A close interdependence of action and the ‘tools for action’ are decisive factors to which extent the material has an impact on a practice. Second, *competence* in the sense of ‘technique’ underlines bringing in knowledge and skills by incorporating technology (Ihde, 1990). We have to bear in mind, that today’s technology design mainly attempts to ‘move’ competence into the material in order to enable the user to fulfil a task. For instance, almost every car is equipped with a navigation system. Skills of wayfinding (competence) are moved into the car (material) in the form of navigation systems. Wayfinding as a practice changes dramatically or even disappears (e.g., Aporta & Higgs, 2005). Third, thoughts, emotions and motives are subsumed under the notion of *meaning*. Shove et al. (2012, p. 23) argue that meaning is ‘tricky territory in that those who write about social practices are in much less agreement about how to characterize meaning’ and therefore it should be dealt with cautiously.

We suggest that the notion of needs helps to clarify the ‘tricky territory’ of meaning. The fulfilment of certain needs is the basis of the motivation to perform an activity, i.e., to engage in a practice. Although there are only a few needs, there are numerous ways in which they are fulfilled. We believe that this link between social practices and need fulfilment outlines a comprehensible approach which helps to bridge the gap between abstract notions of wellbeing through need fulfilment and general and concrete ways of the same (see Figure 11.2).

Finally, Shove et al. (2012) distinguish ‘practice-as-performance’ from ‘practice-as-entirety’. Practices constitute themselves, change and dissolve through individual performances: ‘[...] Through performance, through the immediacy of doing, [...] the “pattern” provided by the practice-as-an-entirety is filled out and reproduced’ (Shove et al., 2012, p. 7). The practice-as-entirety is thus more normative, a potentially idealised representation of a practice. For example, if talking with other people about practices of riding a bike, most people will know that the material is a bike, that particular competencies are required in order to be able to ride the bike. The potential meanings might be resource-saving, weather-dependent, slow, healthy, exhausting or dangerous. This practice pattern

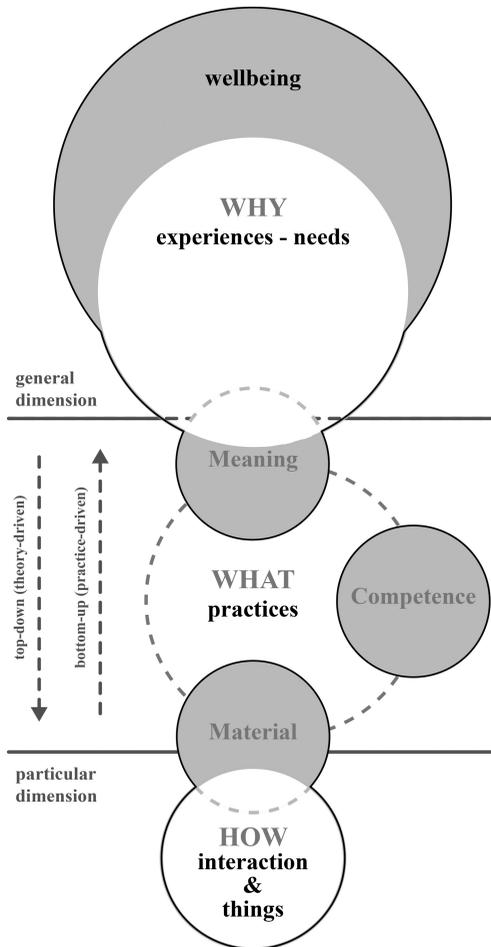


Figure 11.2 How practices link the particular dimension of 'How' (e.g., design) and the general dimension 'Why' (e.g., research).

is constituted through single performances and experiences but provides a more abstract blueprint of what it means 'to ride a bike'. At the same time the pattern impacts the way the practice is performed. Changes in practices happen through deviations in performances, which eventually alter the pattern. For example, people who grew up in a time when it was still unusual to own a car, used bikes frequently, making it the dominant mode for individual transportation. The practice was related to feelings of autonomy and freedom. Later, the car took over and today, in the Western world, riding a bike is more closely related to leisure time, health and sustainability than to getting from A to B. As a result, it is important for designers to understand that they are able to modify practices by changing the material, the meaning and also the competence involved.

In sum, practice theory provides a relevant theoretical frame, which links action, knowledge, material and meaning with each other and suggests a reciprocal relationship. Design artefacts (i.e., material) provide opportunities for action, and the performance of a

practice creates meaning through the particular configuration of all elements. Moreover, practice theory addresses the way practices change over time. Finally, it provides a way to understand single, situated, highly context-dependent instances of performed practices as part of a more abstract, culturally shared and understood overall pattern. By introducing a link between the meaning of specific practices and psychological need fulfilment, the present approach constitutes a reasonable conceptual and methodological approach to wellbeing-driven design.

### **The practice of wellbeing-driven design**

We divide our approach to design for wellbeing into six steps: (1) to delimit the design space, (2) to gather positive practices, (3) to consolidate, (4) to design ideal practices, (5) to specify the material and (6) to realise the material.

In the following, we introduce each step by (a) clarifying its purpose, by (b) describing the main activity to achieve this purpose and by (c) presenting some illustrative insights from one of the case studies we conducted to explore the approach.

#### ***Step 1: Delimit the design space***

Most practical design projects require to limit and structure the design space beforehand, mainly due to limited resources in terms of time and money. In general, our approach assumes a *top-down* perspective (see Figure 11.2): design for wellbeing should ideally begin with ‘designing’ positive moments which are experienced within meaningful practices, and only later should it address the ‘things’ (i.e., technologies) which are required in order to shape the practice accordingly. For example, one can take a certain interest as a starting point, such as looking for ways to support couples in long-distance relationships. Such a ‘theme’ will help to focus on a group of practices, such as how couples try to feel close over a distance. This limitation reduces the research area and makes the design work more manageable. The ‘theme’ itself does not need to be justified, as long as the designers who are involved agree on its relevancy. However, in reality many technology design projects are *bottom-up*, that is, they start from the materials which are to be used later. For example, when designing in the context of cars, one may focus on practices related to cars. When designing a coffee machine, one may focus on practices of brewing coffee (as in our case study). In general, there is a danger of setting the limits too narrow. Thus, we always recommend broadening the scope a little further than one would typically consider given the material at hand. For example, in the context of brewing coffee, one may focus on broader practices, such as the ‘coffee klatsch’ (a spontaneous get together for having a coffee and a chat), rather than on narrow issues of, for instance, operating the coffee machine.

To familiarise oneself with the theme, initially, a number of practices from one’s own everyday life experience should be compiled, in order to get a feel for the design space. Of course, it is possible that the research area at hand is not ubiquitous and there is no connection to the designer’s personal experience. For instance, it may be difficult to name practices of parenting without the experience of being a parent. However, even in this case, culturally shared notions of practices exist. They may lack detail and may even be overly stereotypical; nevertheless, they can and should serve as a starting point for future research. If resources allow for it, a number of additional open conversations with other people outside the team may add further depth to the initial design space. Another source

for practices can be found in movies or literature (Blythe & Wright, 2006). In general, the practices gathered in this first step should be as authentic as possible.

### ***Step 2: Gather positive practices***

Typically, empirical explorations of tasks and contexts which support design, attempt to answer the question of what people do and what types of problems they experience – on average. Design is then used to supposedly ‘solve’ these problems. In fact, the gap between the knowledge which is gathered through this type of analysis (e.g., average notions about the problems people have with brewing coffee) and potential solutions (e.g., new ways of brewing coffee) is wide, potentially leading to the disconnection of ‘data’ and ‘idea’ (design gap, Wood, 1997). We advocate a different strategy, namely to analyse people, we call them ‘positive practitioners’, who particularly take joy from a practice within the limits of the given theme (Step 1). Those instances of outstanding performances of positive practices in terms of need fulfilment will serve as further inspiration for the deliberate (re)design of practices.

We explore the main elements of a positive practice through applying a semi-structured interview and an in situ (re-)performance of the positive practice. To this end, we developed the positive-practice canvas (PPC) as a design-oriented, visual interview guide (see Figure 11.3). The PPC is printed on an A3 paper size format. On the one hand, it provides an overview of all relevant elements and key questions. On the other hand, it works as a notepad to document answers. As a first step, we ask participants to ‘pick a positive everyday practice, associated with the [theme]’. We then ask participants to perform the positive practice they have picked. Ideally, researchers would find themselves in the right place at the right time. As this is only rarely possible, we encourage the interviewee to act out the practice as close to the original performance as possible. Subsequently, we ask participants to go through the practice just performed before step-by-step using the PPC. In each step we ask participants to elaborate on the meaning (e.g., ‘Take a minute to think about the selected practice’, ‘Tell me why you are engaging with this practice’, ‘What is your motivation?’), the competencies (e.g., ‘What kinds of skills and knowledge are necessary to perform your practice?’), and the material (e.g., ‘What kinds of objects do you use to do this?’). From a wellbeing perspective, it is important to gather the specific meaning of a given practice which is provided by the participant. While practices can be comprised of similar materials and competencies, they can differ in the way they are performed. For instance, the act of riding a bike requires a bicycle and the skills to ride it. However, an especially competence-oriented way to ride a bike (e.g., a BMX) certainly differs from a, say, socially-oriented way (e.g., touring with friends). When trying to pinpoint the needs which are involved proves to be difficult, the guideline offers clarifying questions (based on Sheldon et al., 2001), such as: ‘When you engage in this practice, do you feel close to people important to you?’ (relatedness), or ‘... do you feel like experiencing something new?’ (stimulation). Through these questions, different types of motivations can be brought up and they may help to characterise the meaning which is experienced by the interviewee. It is advisable to first find out about the motivation which stands behind the motivation to perform a certain practice (i.e., meaning) as it helps immensely to gather information on the competencies and the materials which are needed. When talking about the materials, the interviewer must not only take material objects (e.g., tools) into focus, but also the context (e.g., location, time). In each step all three elements are present and remain connected. Thus, the PPC helps to organise, structure and elaborate all elements of a practice.

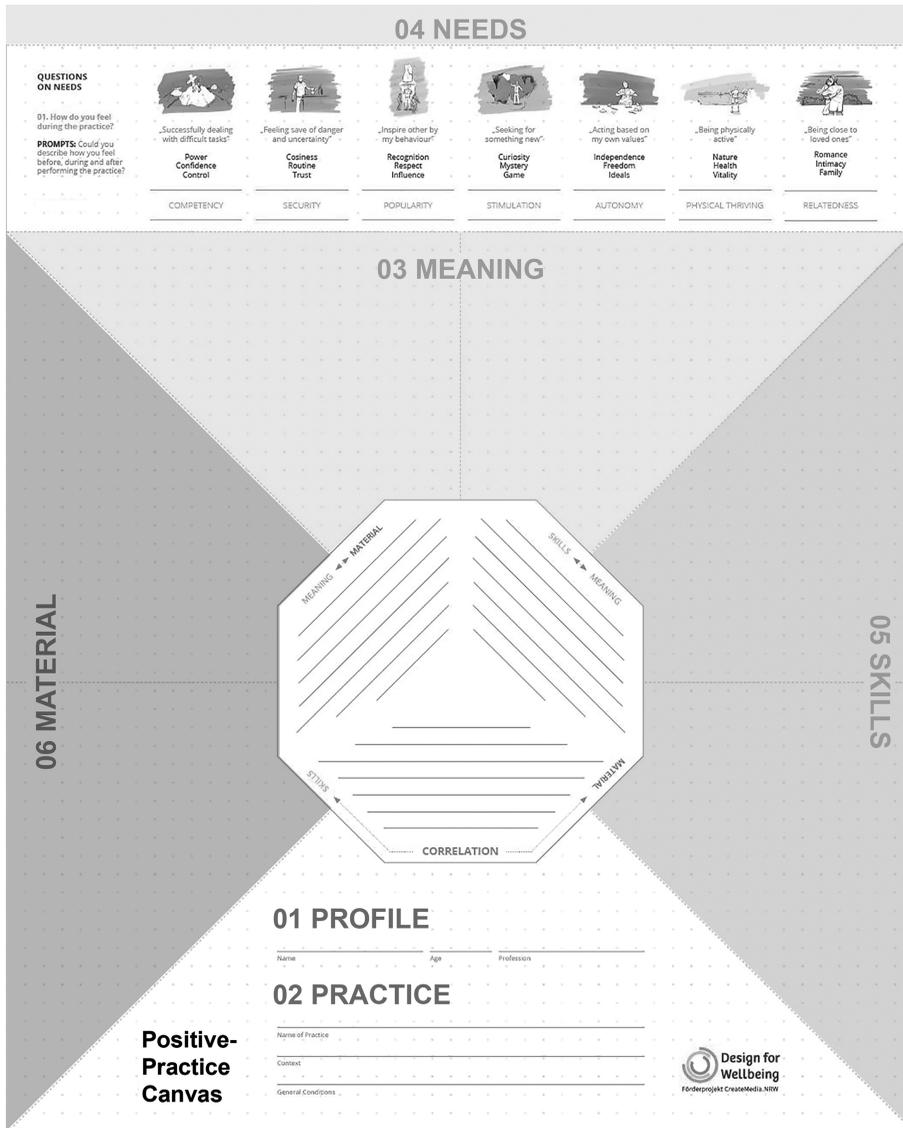


Figure 11.3 The positive-practice canvas (abstracted).

The interviewer should ensure that important information and insights are noted on the canvas (see Figure 11.4). Furthermore, the PPC is accompanied by a more traditional written guideline; both can easily be used together or as separate tools. The PPC’s overall goal is to capture the unfolding of a particularly positive performance of a practice over time, organise its content and select verbatim quotes, to make it accessible for design. It needs to be pointed out that from our experience, it is better to let participants describe different practices one after the other rather than mixing them up in one description.

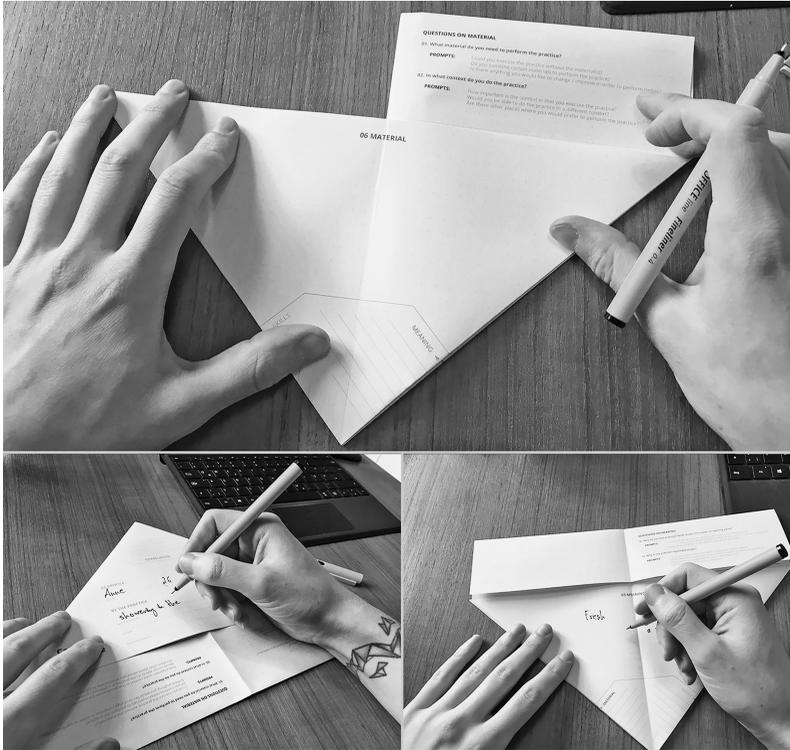


Figure 11.4 A handwritten positive-practice canvas used in an interview.

In our case study we interviewed eight people who enjoy brewing coffee and gathered 17 single positive practices. P1, a 29-year-old male civil engineer, enjoys ‘coffee brewing for guests’. He wants to be a good host: ‘[...] I want to demonstrate hospitality by giving only the best to my guests.’ He creates an atmosphere of comfort and cosiness through the warmth and smell of the freshly brewed coffee. This practice is driven by the need of *relatedness*: he takes care of his guests, as they are important to him. For example, it is important for him not to lose contact with his guests during the practice of brewing coffee. As a result, he gives a detailed explanation, attempts to keep them in a loop and tries to make the coffee brewing process more transparent. P2, a 35-year-old female student, engages in a ‘ritualised coffee brewing’. For her, the manual coffee grinder is the most important tool in the kitchen. Grinding the beans, taking care of the coffee is a sign of taking a moment off on a busy day. P2 enjoys the ritual and the security it provides: ‘[...] it is like a holiday from daily life, a break.’ These examples show how practices can be distinguished by the major needs they fulfil. Although both practices involve the preparation of coffee, their purpose is quite different, which in turn impacts the way the practice is performed.

### **Step 3: Consolidate positive practices**

Gathering positive practices results in a collection of distinct, individual, positive performances of practices. Depending on the number of ‘positive practitioners’ interviewed and

their practices, the collection of positive practices can become large. On the one hand this is good, as it represents a substantial pool to be inspired by; on the other hand, this pool might need to be consolidated. We suggest two different strategies. One is to take the most inspiring positive practice (with a clear need fulfilment and a strong connection between all elements) and to use it as anecdotal input for design. The other is to further consolidate the gathered positive practices.

We suggest the above can be consolidated by grouping practices which are similar in terms of their meaning (i.e., needs fulfilled) (see above). This results in bundles of practices with the same meaning populating the same design space (in our case, to brew coffee). Similar practices are not ‘averaged’, but rather accumulated to enrich the designer’s understanding through different combinations of competencies and materials leading to a similar meaning. The overall aim is to gain an understanding of the underlying pattern of a practice. A tool that may assist in consolidating is an accumulation chart, a simple table. The idea of the chart is to compare the individual PPCs and their elements. Each row of the table represents an individual positive practice, since the unit of the analysis is the practice and not to be confused with the individual practitioner. Columns of the chart start with the title of the practice, the name or code of the contributing participant, the meaning and the ascribed need, the competencies and finally the materials which are involved. Here it is helpful to highlight needs by using different colours. The difference between raw data and processed data needs to be apparent (see Figure 11.5 for an exemplary accumulation chart).

In our case study of brewing coffee, 17 positive practices were copied into an accumulation chart and sorted into three bundles of shared meaning. The first bundle, labelled ‘brewing a coffee as a ritual’, describes practices that fulfil the need of security and highlights the actual process of brewing a coffee and the positivity of a repetitive action. For instance, P1 characterises brewing coffee as a morning routine, that is, a fixed procedure that ensures that every day starts with a good coffee. For him, timing plays an important role. He mentioned: ‘I boil water while taking a shower. Thus, I can make a coffee right after showering.’ P1 experiences the efficiency, the interlocking of different activities, as positive. P3 describes a further security practice. She likes to brew a coffee in a way to always achieve the same quality: ‘[...] without my [particularly] coffee it is not a real start of the day.’ The second bundle of shared meaning is to ‘brew a coffee in a professional way’. It addresses the need for competence. A third bundle is ‘brewing a coffee for others’ (a relatedness practice).

Examining practices with similar meanings in a similar design space focuses as well as broadens the perspective on what people do and feel within a practice. In all of the three examples, the practice of preparing coffee helps the participants to feel competent, to feel safe and to feel related. Moreover, the particular needs stay the same, but the ways to fulfil these needs vary. The different practices of preparing coffee with the same goal of satisfying needs provide inspiring ways to design for different competencies and materials.

#### ***Step 4: Design ideal practices***

Practices have a narrative structure: they unfold linearly over time through their performance. However, even very positive performances are not always ideal. The purpose of this step is to write a story about how an *ideal* performance of a practice in terms of need fulfilment may unfold over time. Furthermore, Step 4 offers the possibility of including authentic research findings in the design process and making those insights traceable at the same time.

social practice	Happy User	meanings: bulletpoints and quotes from the interview	competencies: bulletpoints and quotes from the interview	materials: bulletpoints and quotes from the interview	satisfied need
Daily preparation of Late Macchiato using Portafilter coffee machine	P2. F. Freelance Fashion designer	Coffee making as a daily morning ritual / daily ritual which must not be changed	Knowing how the machine works	Well performing coffee maker (Portafilter coffee machine by Gastroback)	Safety
		Consistently high quality of coffee taste & perfect foam: foam	Choosing the right Espresso coffee beans	Latte Macchiato glasses + Long spoons	
		Pleasure	Frothing the milk: Choosing the right temperature for the right milk	Milk frother (Frother for the stove / Battery-operated handheld device)	
		Waking up ("I need my coffee in the morning for a good start to the day")	Understanding the features and finding the correct settings	Choosing the right Espresso coffee beans	
		Part of common life / every-day life	Right interplay of grinding degree, water pressure and coffee bean	Coffee grounds container for easier emptying	
		Taking a break with husband in the kitchen	Continuously trying out in order to get the perfect individual coffee taste	Accessories: rubber mat for setting aside hot milk, small cups, spoons, different filters	
		Ability to offer very good coffee to family / friends / acquaintances and neighbours (Being known for serving very good coffee)	Finding out about the correct settings with the aid of youtube videos	Stove	
Preparation of coffee using Hario V60 Drip Kettle (hand filter) in the morning on weekends for family and friends	P3. M. UX Designer	Preparing a special coffee for family and friends	Knowledge about the right preparation method (Amount of beans, grinding degree, Ratio of water and coffee, right way of pouring brewing, specifics)	Hario V60 Basso Drip Kettle (Especially built to optimise the process of pouring over hot water)	Relatedness
		Sharing with others	to keep the others in the loop of brewing coffee	Hario V60 Basso Drip Kettle (Especially built to optimise the process of pouring over hot water)	
		"His speciality" – He is experienced and his skills will ensure a good outcome	Preparation off the top of your head	Paper filter of Hario V60	
		Welfare of his family	Manual preparation: especially when handling may require more attention / visualising the proceedings	Old jug made from ceramic with insulating cover	
		Time and effort for others ("Providing more than just a cup of coffee")	Rapid recognition of different results (colour, taste, smell)	Electric coffee grinder (Gastroback) / manual coffee grinder (Hario)	
		Being part of the process from the beginning until the end / capability to control the process	Choosing a specific coffee bean (in-depth knowledge of origin, growing region, taste, particularities of the coffee bean; i.e. he once tried a coffee made from Indian coffee beans, which supposedly is very rare)	Scale	
		Understanding the process and the science behind it / Continually challenging and improving oneself	Keeping a steady level	Timer / mobile phone	
Preparing espresso coffee for himself in the morning using Portafilter machine	P4. M. 18. Sales manager in a medium-sized company, married, 2 children	"I am treating myself"	"single work steps are not difficult"	"The coffee maker indicates the right amount of coffee beans"	Autonomie
		"I am treating myself with the perfect coffee. I am taking the time"	Grinding the coffee correctly	≈25 seconds for this activity are unchangeable	
		"I am always looking for the best espresso (Godshoe)"	15 kg steady pressure	100% Robusta coffee bean 23.6kg = 1kg / Month obtained from a coffee roaster from Cologne	
		"I am glad that everything went well"	Operating a machine	Rocket Cellini Classic (Portafilter coffee machine, 2 Kreier) approximately 1100 €	
		"Preparing the coffee and enjoying it afterwards 9/10 points others have prepared the coffee for me 5/10, but only if it is the perfect espresso."	Cleaning a machine	Tamper	
		"Challenging myself"	Panning the cup in order to be able to drink all of the coffee cream	Customised cup (Ristretto cup, beated)	
		"Relaxing and enjoying something just for myself"		Visions: whether machines more barometers, more manometers	
Espresso and Mischkaffee / Cappuccino kochen für andere / Gäste	P4. M. 38. Sales manager in a medium-sized company, married, 2 children	"Allowing others to prepare an espresso with my coffee maker"	As already mentioned above: foam milk	As mentioned above, minus Olive oil, plus milk, and a small milk jug	Popularity
		Inspiring others - evoke interest for espresso coffee		plus: Nespresso machine in case that there are more guests visiting.	
		Passing on gathered know-how, sharing knowledge and opinions about taste			
		I enjoy preparing coffee for others (6/10)			
Energetic preparation of coffee	P1. M. 29. Civil engineer	"Treating others"			Safety
		Morning ritual		A sufficient amount of time	
		Waking up and starting the day off right	Everything is happening simultaneously/ everything is interlinked	Resources: Coffee beans, milk, water	
		Taste and smell revive the senses	Choosing the right coffee beans	Manual coffee grinder, coffee, cups, kettle, gas stove	
		Joyful anticipation / Drinking coffee in the morning as motivation	Anticipating prospective duration of processes / Bearing in mind variables (Amount of water, Amount of coffee, remaining degree, etc.)	Fixed sequence of actions	
Preparing coffee when people are visiting	P1. M. 29. civil engineer	Hospitality: "I would like to offer something special"	"Made with love" / you need to take time / "I know some of my guests' preferences when it comes to drinking coffee"	A sufficient amount of time	feeling connected to family and friends
		My guests are supposed to feel at home / coziness		Cosy surroundings	
		Being able to have something special to offer to my guests	Welcoming my guests/ being communicative/ Maintaining a friendly atmosphere	Manual coffee grinder, Bistleri, cups, kettle, gas stove	
		Sharing knowledge	Choosing the right coffee beans	Resources: Coffee beans, milk, water	
		The best way to be able to serve very good coffee for a large group of people	Skills: course of action / using the coffee maker the right way	Cup (depending on the beverage)	
Cold brewing of coffee	Daniel, 29. Civil engineer	Demonstrating know-how			Feeling competent
		"I am well-prepared, like a well appointed laboratory" / feeling competent & self-confident	Organizational skills, Preparation, estimation of time/parameters: How long does it take? How much will I need?	a sufficient amount of time	
		I like to experiment/ I have always wanted to try things out	Being inspired/ searching for new methods/ staying up-to-date	Resources: Coffee beans, Water	
		I don't know what people think about my action. I am rather focused on myself.	you need to get a feeling for the right coffee "I need to be up for it"	Manual coffee grinder, fridge, jars, scale, measuring jug	
		I have a special interest in it/ it is interesting as things could also go wrong		Recipe / Inspiration	
Manual preparation of coffee serves as a ritual	Tanja, 35. Student	Expanding my horizon			Autonomy
		I like to share what I have found out with my friends			
		My coffee grinder serves as a pragmatic statement and not just mere decoration			
		I love antiques "It has soul" / Feeling at home	Be willing to take time / time-out from every-day life / no rules apply	My coffee grinder is the most important tool in my kitchen/ I always have to be able to have it at hand	
		To make time / like taking a break in the afternoon "I decide when I take a break"	Estimating amounts/ you need to be daring, especially in the beginning/ Trying out, curiosity to try out something new	Resources: coffee beans, water cafetière (Bodum), my favorite coffee cup	
Gourmet, superior quality is desired					
Looking forward to the product while preparing it / joyful anticipation starts while preparing the coffee					

Figure 11.5 An exemplary accumulation chart.

Take an anecdotal practice or an accumulated positive practice bundle as a starting point for the story. Do not simply recount what was gathered in Step 2 but create your own envisioned practice out of the existing material. Start adding ideas of how to improve psychological need fulfilment which fit the elements given. To be clear, this is not a further step of analysis, but already an act of design. The ideal practice narrative's purpose is to envision practices that should emerge through using the yet-to-be-specified products and/or services with the help of insights from the gathered positive practices. At best, the resulting narratives represent a realistic and rich description of how a future positive practice should unfold in everyday life.

The ideal practice serves as a reference for the later specification of the 'material'. It allows revisiting the initial idea (as a reference) as well as giving to answer the crucial question of whether the created product or service is able to shape the envisioned practice and experiences.

The following guideline helps to structure the narrative and to keep all necessary elements in view:

- *Context.* Describe the situation in which the practice is placed through time, location and related previous and following events.
- *People.* Introduce the acting practitioners who engage in the practice by age, gender, profession (if necessary), personality and other relevant elements of their life-world.
- *Motivation.* State why the practitioner engages in the practice. Clarify the personal meaning of the practice and describe how the practice fulfils the needs.
- *Interaction.* Describe in detail how the practice unfolds over time. Describe all single activities and meaningful moments. Emotions and thoughts of your practitioner should be as detailed as possible. Use quotes from Step 2 to make it as authentic as possible. Keep the material vague. The narrative should focus on the interaction as if the material already existed.
- *Happy ending.* Summarise the whole practice and make sure that your practitioner is happy and satisfied because of performing the practice. Describe the final state of the practitioner.

The author should stay positive throughout the whole narrative. A narrative of an ideal practice avoids all traces of a pejorative undertone and should not be negative or sarcastic. The story makes the practice accessible to others. To be sure, the narrative does not have to be a written story. Animated cartoons, storyboards (see Figure 11.6), theatre plays or videos are also ways to tell a story. They help people to understand the narrative based on additional visual information. Another advantage of, for example, video as a format, is that the speed and duration of the narrative can be better controlled. However, videos and cartoons need time and resources to prepare. This extra portion of effort does not automatically make a difference and can even make it more complicated. For example, video will inevitably show details unimportant to the story but nevertheless likely to grab attention, while written stories generally allow for a much better control of distracting detail (also see Diefenbach et al., 2010).

For our case study, three narratives were created. *Coffee-Love* is a narrative based on *brewing a coffee as a ritual*, predominantly fulfilling a need for routine and relaxation (i.e., security). The second narrative, called *Experto*, is based on *brewing a coffee in a professional way* and addresses the need for competence. The third narrative, called *Share-Co*, is based on *brewing a coffee for others* and tells the story of experiencing relatedness. Undeniably, the

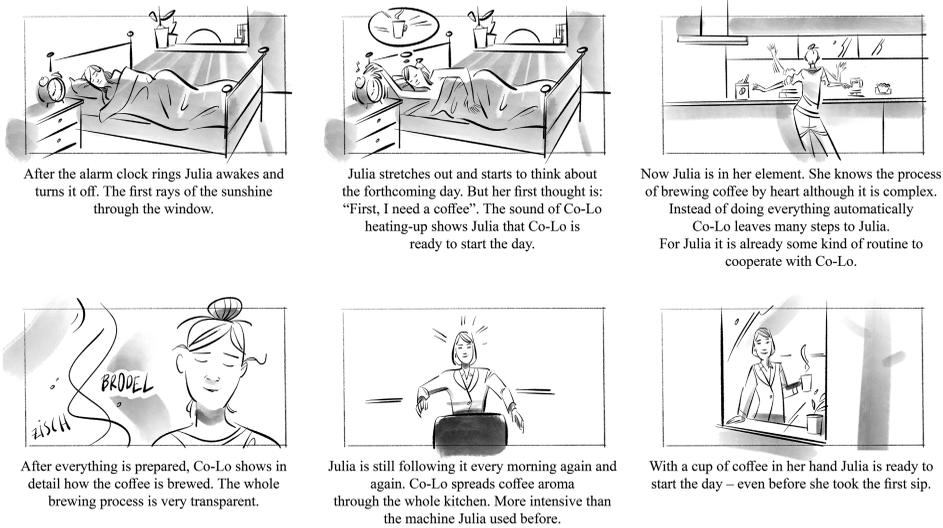


Figure 11.6 Excerpt of the Coffee-Love narrative. Note that the original story is more extensive, and more images are included in the storyboard.

number of narratives and the number of bundles of shared meaning match unintentionally. Based on the three bundles of shared meanings, more narratives would be possible and even beneficial. For a brief example of an ideal practice narrative, see Figure 11.6.

Narratives of ideal practices can be evaluated easily by potential users. Positive practitioners from the interviews can be revisited and asked to comment on the stories. This input can be used to improve the narrative further.

### **Step 5: Specify the material to shape the ideal practice**

So far, the material that was used to formulate the ideal practice narratives was deliberately left vague. In the fifth step, the material is specified, based on the narratives. In other words, the 'design problem' is specified by the material (i.e., product, service) in a way that it will evoke and shape the practice through the functionality and interaction offered.

To generate concepts for analogue or digital products and services is the heart of the design practitioners' work. Most design agencies or companies follow their own processes of how concepts should be generated. Thus, this step does not include a formal guideline or tool. We believe that designers and developers are far better off using their own processes and the procedures they are experienced with. However, we suggest that people involved in the creative process should familiarise themselves with the narratives and understand them as the objective and reference for their design work. At best, people participate in the design, who also conducted the interviews and developed the narratives. All in all, designers involved in this step should be able to relate to the narratives and use their capacity for empathy to create a 'material' able to evoke the practice.

In our case study, six coffee machines were created. Figure 11.7 presents the concepts and a short description of the design rationales and intended need fulfilment.

### Ideal practice narrative: Coffee Love



A machine that still has many manual steps. A transparent water tank, coffee decanter and an hourglass like shape embody the process and let users participate.



The machine is very transparent so that users can participate in the process. Moreover, the distance between filter and water supply allows the coffee's smell to spread.

### Ideal practice narrative: Experto

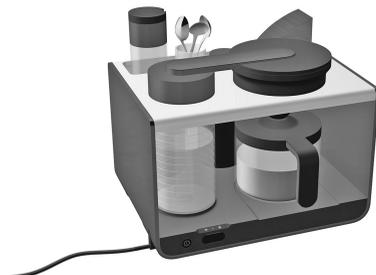


A machine that is like a laboratory. Users can manipulate parameters such as grinding, water temperature and amount of water precisely. This degree of freedom increases the influence users can take on the actual coffee. Moreover, most components are attached manually that is based on a workmanlike manner.

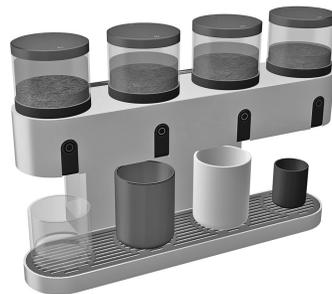


The machine provides separate parts for each step of the brewing process. Coffee grinder and water tank are side by side and offer marks to measure all required components. Before the coffee is brewed the ground coffee can be checked in the filter a second time.

### Ideal practice narrative: Share-Co



A machine that is placed on the table to serve coffee to others. Having the machine on the table no one has to leave the table and the social interaction remains stable. When the coffee is ready the host could show his hospitality by offering sugar and milk to her guests.



The two-sided brew-station provides space for four cups. The host can fine-tune the coffee for each cup from one side of the machine and guests could see how the coffee is prepared individually from the other side.

Figure 11.7 Six concepts (two per narrative) that try to fit into and evoke the corresponding narrative.

### **Step 6: Realise the material**

In the previous steps, meaning and competence (Step 4) and the material (Step 5) were combined in a particular way to create an ideal practice. In the final step, the actual material is realised. This requires a specialised set of design skills, depending on the used material (e.g., particular technologies), which is beyond the scope of the present chapter. Keep in mind, that the design narrative itself no longer matters, as the material has to tell the narrative through its experiential qualities, functionality and detailed interaction – i.e., on its own. Step 5 represents the bridge between wellbeing and products/services we were looking for. The second version of the ideal practice narrative presents an integrated story, material, emerging practices and experiences together, as one interdependent unit. But while the material remains tangible and consistent, the practices and experiences are intangible and need to be reproduced through situated performances in everyday life. We believe that the process that is described in this chapter supports the inscribing of the practice and especially its meaning into the material. If the material is used in an intended situation, it will help to achieve a result which is as close as possible to the desired ideal in a practice-as-performance situation. As a result, this process can be supported by additional information given to potential users about the envisioned practice. In this respect, the ideal practice narrative can be used further as a reference document for marketing or any related purpose in an industrial setting.

### **Conclusion**

Nowadays, to explicitly design for subjective wellbeing is an accepted objective of HCI and ID. Nevertheless, a very large part of this work in this area is still concerned with clarifying what wellbeing, meaning and enjoyment is. Up to now, design practice remained more or less unaffected by the research on subjective wellbeing. We believe this to be due to a gap between the abstract, intangible notion of wellbeing, needs and experiences and the concreteness of digital or analogue products. It seems easy to proclaim that it is ‘all about experiences’, without addressing the question of *how* concrete products and services can be designed to create those experiences any further.

The presented approach to design for wellbeing intends to bridge the gap between abstract and concrete. It uses Hassenzahl’s approach to experience design, i.e., to provide need fulfilment and positive experience through particular functionality, interaction and form bundled into a technology (Law et al., 2009) and combines it with social practice theory to connect meaning with the material. The step-by-step approach is meant as a sufficiently detailed, but still adaptable, process for practitioners. It is a starting point rather than a fixed process. It seeks to inspire a more systematic approach to the design of wellbeing, without being overly prescriptive and rigid.

We believe that the described process is able to provide a more explicit grounding of products and services in wellbeing. Gathering positive practices, understanding them, combining them, idealising them, turning them into a narrative and finally inscribing them into material is a highly reflective process. It helps to bridge the gap between theory and material (in our case a product/technology). As Dalsgaard and Dinger put it: ‘It is exactly this process of grounding, re-grounding, articulation and re-articulation that facilitates exchanges and thus reflections on the ties between theory and practice’ (Dalsgaard & Dindler, 2014, p. 1643).

In the end, design is always normative. Any new product will change existing practices – whether intended by the designers or not. Thus, designers carry responsibility not

only for the material and its quality, but also for the practices it encourages and experiences that are mediated. Naturally, designers try to anticipate possible side-effects and misuses of the envisioned product or service. This, however, appears quite passive. With the present process we encourage designers to take a more active role by explicitly addressing wellbeing and envisioned practices *before* a product is designed.

## Acknowledgements

All presented tools and case studies are outcomes of the project Design for Wellbeing, NRW. This work has been funded by Leitmarkt Agentur NRW and the European Regional Development Fund (EFRE-0800005). For more information see [www.design-for-wellbeing.org](http://www.design-for-wellbeing.org).

## References

- Aporta, C., & Higgs, E. (2005). Satellite culture. *Current Anthropology*, 46(5), 729–753.
- Blythe, M.A., & Wright, P.C. (2006). Pastiche scenarios: Fiction as a resource for user centred design. *Interacting with Computers*, 18(5), 1139–1164.
- Dalsgaard, P., & Dindler, C. (2014). Between theory and practice: Bridging concepts in HCI research. In *Proc. CHI 2014* (pp. 1635–1644).
- Desmet, P., & Pohlmeier, A.E. (2013). Positive design: An introduction to design for subjective wellbeing. *International Journal of Design*, 7(3), 5–19.
- Diefenbach, S. (2017). Positive technology – A powerful partnership between positive psychology and interactive technology. A discussion of potential and challenges. *Journal of Positive Psychology and Wellbeing*, 2(1), 1–22.
- Diefenbach, S., Hassenzahl, M., Eckoldt, K., Hartung, L., Lenz, E., & Laschke, M. (2017). Designing for well-being: A case study of keeping small secrets. *The Journal of Positive Psychology*, 12(2), 151–158.
- Diefenbach, S., Hassenzahl, M., Eckoldt, K., & Laschke, M. (2010). The impact of concept (re) presentation on users' evaluation and perception. In *Proceedings of the 6th Nordic Conference on Human-Computer Interaction: Extending Boundaries* (pp. 631–634).
- Hassenzahl, M. (2018). The thing and I (Spring of '17 remix). In M. Blythe, & A. Monk (Eds.), *Funology 2 – From Usability to Enjoyment* (pp. 301–313). Cham: Springer International Publishing.
- Hassenzahl, M., Diefenbach, S., & Göritz, A. (2010). Needs, affect, and interactive products – Facets of user experience. *Interacting with Computers*, 22(5), 353–362.
- Hassenzahl, M., Eckoldt, K., Diefenbach, S., Laschke, M., Lenz, E., & Kim, J. (2013). Designing moments of meaning and pleasure. Experience design and happiness. *International Journal of Design*, 7(3), 21–31.
- Huta, V., & Ryan, R.M. (2010). Pursuing pleasure or virtue: The differential and overlapping well-being benefits of hedonic and eudaimonic motives. *Journal of Happiness Studies*, 11, 735–762.
- İhde, D. (1990). *Technology and the Lifeworld: From Garden to Earth*. Indianapolis, IN, USA: Indiana University Press.
- Jordan, P.W. (2000). *Designing Pleasurable Products :An Introduction to the New Human Factors*. London, UK: Taylor & Francis.
- Law, E.L.-C., Roto, V., Hassenzahl, M., Vermeeren, A.P.O.S., & Kort, J. (2009). Understanding, scoping and defining user experience. In *Proceedings of the 27th International Conference on Human Factors in Computing Systems – CHI 09* (p. 719).
- Lyubomirsky, S. (2007). *The How of Happiness: A New Approach to Getting the Life You Want*. New York, NY, USA: Penguin Books.
- Reckwitz, A. (2002). Toward a theory of social practices: A development in culturalist theorizing. *European Journal of Social Theory*, 5(2), 243–263.
- Sheldon, K.M., Elliot, A.J., Kim, Y., & Kasser, T. (2001). What is satisfying about satisfying events? Testing 10 candidate psychological needs. *Journal of Personality and Social Psychology*, 80(2), 325–339.

- Sheldon, K.M., & Lyubomirsky, S. (2006). Achieving sustainable gains in happiness: Change your actions, not your circumstances. *Journal of Happiness Studies*, 7(1), 55–86.
- Shove, E., Pantzar, M., & Watson, M. (2012). *The Dynamics of Social Practice: Everyday Life and How It Changes*. London, UK: SAGE Publications Ltd.
- Wood, L.E. (1997). *User Interface Design: Bridging the Gap from User Requirements to Design*. Boca Raton, FL: CRC Press.