

Toward the Ideal Self: Investigating Potential Technologies for Self-Improvement

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ABSTRACT

This generative and exploratory study sought to investigate potential product affordances and behaviors which could support aspirational product use. Twelve participants were interviewed about a cherished object, were instructed to imagine a digital device that could provide the same prized feeling states as their object, created a word and picture collage illustrating potential uses for that object, and finally drew their object. Qualitative analysis of the interview transcripts revealed a number of thematic categories, one of which is related in this article: the purposeful engagement of technology to envision and manage the fulfillment of the Ideal Self, a conception of an individual's life goals.

Author Keywords

Reflection, identity, generative research, goals, creativity.

ACM Classification Keywords

To come.

INTRODUCTION

"In the Transformation Economy, the customers themselves will be the product in the sense that what they will value most is the ability of an offerer to bring about a change or transformation in them."

Pine and Gilmore, *The Experience Economy*.

In *The Experience Economy*, Pine and Gilmore [1] described a growing trend in the design and marketing of goods and services – the evocation of targeted subjective experience. Their book was a touchstone for the experience design movement, as both designers and CEO's realized the importance of the product use experience in terms of sales, adoption, and satisfaction.

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Pine and Gilmore predicted a next evolutionary stage after the experience economy. They called this stage the "Transformation Economy," in which consumers will seek out those product experiences which support their personal goals and values. While these authors frame such a phenomenon as a future occurrence, the roots of such product use and product marketing already have a strong foothold. In the US alone, the market for such services and products has an estimated value of at least \$9.6 Billion USD, with an expected increase to \$13.6 Billion USD by 2010 [2]. The aspirational products and services in this estimate included self-improvement books, audio books, websites, infomercials, and motivational speakers; with content ranging from religion and spirituality to life skill development, weight loss, and stress management. By engaging such products, consumers often hope to fulfill some goal state in regard to knowledge, behavior, or emotional experience. While the exigencies of the current global financial situation may lead to questions about the projected growth of the self-improvement industry, there can be no doubt that, at least in the US, people turn to products to help them achieve self-improvement goals.

The purpose of this generative and exploratory dissertation study was to investigate users' impressions and expectations of possible digital products that would stimulate experiences of a generalized personal aspiration: increased well-being. The findings of this study revealed an interest among the participants in technologies that would support self-reflection in a multimedia environment. The qualitative data analysis resulted in a number of themes describing modes for self-reflection and qualities related to such a product use experience.

This paper reports on one type of aspirational product use emerging from that study: participants' purposeful engagement with technology to move toward an "ideal self" goal state. First, building from a brief discussion of positive psychology and well-being, the "ideal self" concept will be explained and linked to such topics as goal-setting, motivation, and self-reflection. Then the study procedures will be described, including data collection and analysis. The bulk of the paper will focus on unpacking the ideal self thematic category that emerged from this study. The paper

will conclude with a discussion of the findings and their implications.

BACKGROUND

In this study, participants were asked to design an imaginary digital product that would help them experience prized emotional states related to personal aspirations. For the purposes of this paper, aspirational product use is defined as those product affordances and product-use behaviors by which an individual can purposefully strengthen their psychological well-being. Positive psychologist Carol Ryff delimits well-being as being comprised of six constructs: self-acceptance, environmental mastery, positive relations, autonomy purpose in life, and personal growth [3]. The well-being constructs of life purpose and personal growth proved to be central to the participants' product use scenarios.

Life purpose is related to the need to set goals for oneself, whether objective or subjective, and to experience the sense of fulfillment related to the meeting of these goals [4]. Personal growth can be described as the perception of positive changes in personality, behavior, or life circumstances over time [3,4]. Life purpose and personal growth have been positively linked to increased physical health, sociability, and optimal psychological functioning [5,6,7]. It is important to note that cultural differences, such as membership in individualistic vs. collectivistic cultures, may influence how individuals frame the pursuit and the evaluation of life purpose and personal growth [8].

The Ideal Self has been defined as “an evolving, motivational core within the self, focusing a person's desires and hope, aspirations and dreams, purpose and calling... It is manifest as a personal vision, or an image of what kind of person one wishes to be, what the person hopes to accomplish in life and work.” [9]. The Ideal Self is an amalgamation of several of Ryff's well-being constructs including life purpose and personal growth, existing in contrast to an individual's perceptions of current life circumstances [10]. Boyatzis [9] suggests that the Ideal Self is a primary motivating force in the individual, acting as a repository of internal representations of achieved goal-states which is charged with positive affect and can guide decision-making and the assessment of life situations. Like many identity-related constructs, the Ideal Self is both self-generated and socially influenced, and varies greatly across individuals in terms of the degree to which they can consciously engage it [11, 12].

The remainder of this paper describes the study design and participants' use of the Ideal Self construct as they talked about using a digital product that would support well-being. The next section gives an overview of the study procedures, which is followed by the findings and a discussion of their significance.

METHODS

This generative and exploratory study was designed to uncover possible product affordances, features, and use scenarios related to the regulation of positive affect, through engaging participants in the following data gathering activities:

- 1) **Object Interview.** Participants were asked to bring a “cherished” household object to the interview session, where they were interviewed about the reasons they valued the object, and any memories or association the object held for them.
- 2) **Collage Construction.** Participants were then asked to imagine a handheld digital device which could evoke the same feelings as their household object and to create a word-and-picture collage illustrating how they would use this object.
- 3) **Collage Interview.** Participants were then debriefed about their collages, focusing on the words and pictures and how these illustrated possible product affordances and product use behaviors.
- 4) **Product Drawing.** Finally, participants were asked to draw their imagined products and were interviewed about these drawings.

This section unpacks the theoretical grounding, intended purpose, and actual instantiation of these procedures.

Participants

All participants were recruited via a snowball sample. The inclusion criteria included:

- women between the ages of 45-60,
- using both a desktop computer and a mobile digital device,
- having either formal or informal experience with 2D design activities such as drawing or painting,
- having interest in some form of self-improvement media

Women were recruited for the study because the Marketdata report on self-improvement media cited earlier [2] reported that women were the primary consumers of one stream of self-improvement media: books. The age group was determined by the interests of the researcher, who sought to explore populations between the young target audience of most product-related research and the growing field of assistive product development for elderly users. The inclusion criterion of frequent use of both desktop and mobile devices was thought to increase the range of possible use contexts that the participants could imagine. And the requirement of 2D design experience helped ensure that participants would have relative ease with the study procedures. In all, 12 women were interviewed for this study.

Object Interview

At the time of the initial telephone screening, participants were asked to bring a small household object to the interview sessions that they cherished or was somehow important to them. At the interview, after informed consent procedures, participants were interviewed about the object they brought with them: how and why it was important to them, how they commonly interacted with it, and how such interactions made them feel. Csikszentmihalyi and Rochberg-Halton [13] investigated the use of household objects as symbolic place-holders for highly personal meaning, finding that household objects can regularly function as tools in identity-building and identity-transforming processes. The interview protocol for the object interview was adapted from these authors' work.

The purpose of the object interview was to evoke prized affective states from the participants in their own language for use in the subsequent data collection activities and to create a context where participants could talk about the intersections of personal affective states and technology. Participants brought a variety of objects to the interview sessions, ranging from books to vacation souvenirs. In a surprising trend, 5 of the 12 participants brought pieces of family jewelry with strong associations with female family members (mothers and/or sisters). The prized affective states elicited in this interview differed in many ways. In one instance the associations with one object (a toy trophy) included celebration at the achievement of a life goal (graduating from college) and the remembrance of positive experiences with the participant's father in which he supported her academic goals. On average, the object interview was relatively short, lasting about 20 minutes.

Collage Construction

Participants were then instructed to imagine a handheld digital device that could "give them" their aforementioned prized affective states wherever and whenever they wanted and to create a collage from preselected images that would illustrate how they would use this device. Based on difficulties encountered by participants during the pilot for this study [14], participants were specifically given prompts to get them started on this activity. To help participants make the leap from imagined product to imagined use, they were told that "you don't need to know right now what the product would actually look like or what it would actually do, just think about how you would use a handheld device to experience *<reading back to them their actual words for their prized affective states>*." To help them get started on the collage activity, participants were instructed that "some people have found it useful to select pictures that seem to go together, put them in clusters on the paper, and then write words that help explain what they mean." These two quotations are from the interview protocol script.

Collage has been used in a variety of settings to evoke meanings, experiences, and dreams. Sanders and William [15] suggest that collage, just one of a number of creativity-

based methods, can help build "a successful understanding of people's unmet needs and dreams." Ozawa and Inoshita [16] describe collage as a way for participants to "transform their interior thought into outer representation," to communicate concrete ideas as well as inspirations and possibilities. Stappers [17] suggests that collage is an excellent tool for eliciting and illustrating the emotional context of product design and product use.

For this study, 120 small photos were given to participants for the collage construction activity. These photos were selected from a stock photography website, where photos were categorized by the site's users into emotional categories. In total, 160 photos were selected from the site, with 60 photos being categorized as related to pleasant emotions (happiness, fun, etc.), 60 photos being categorized as being related to unpleasant emotions (anger, fear, etc), and 60 photos being objects or locations. Using an online survey tool, these 180 photos were reduced to 120, a number that was deemed manageable by participants in the pilot study. Collage construction averaged at 30 minutes.

Collage Interview.

Participants were first asked to provide a narrative walkthrough of their collage, explaining how they created and what the various elements signified to them. After this walkthrough, participants were asked to further explain elements of their collage, specifically in terms of the functioning (and /or their use) of the product. The collage interview was the heart of the data collection for this study. It was during this interview that participants spoke of unmet needs, potential product features (that ranged from the currently available to fantastic), and use scenarios.

Product Drawing

As the final activity of the interview session, participants were asked to draw their imagined product. Participants who expressed hesitation over this activity were prompted to "start with the outline. What overall shape would this have?" Participants were asked to explain the various features of their drawings. All participants were able to draw their product. While almost half of the participants drew some variation of the iPhone (rectangular, flat, large video screen, no physical keyboard), other participants were more creative in their designs. One participant, for example, drew a cap that had a visor that folded down to become a video screen as well as headphones over the ears, and a small computer that opened (and looked like) a book. The Collage Interview and Product Drawing activities averaged about an hour.

DATA ANALYSIS

The interviews were transcribed and analyzed using a constant comparison methodology [18] to determine recurrent themes in participant remarks. Analysis was conducted using HyperRESEARCH, a Windows-based

qualitative data analysis software program. Individual transcript excerpts were coded and aggregated into thematic categories, which were then fleshed out into theme-based narratives [15]. The following section is based on one theme category which was constructed during analysis: product engagement supporting the envisioning and the embodying of participants' Ideal Selves.

FINDINGS

Participants on average spoke of 3-5 prized subjective states during the course of their object interviews. Interestingly, their collages contained 5-7 concentration areas, which often contained allusions to a prized subjective state and one or more product use scenarios. This increase, and the observation that some participants included no allusions to the prized affective states mentioned in the interviews on their collages, highlighted the non-linearity of the data collection process for these participants. While the object interview was effective in eliciting prized affective states, participants were stimulated by the collage activity (either the photos or the scenario itself) to imagine uses beyond those suggested by their household object.

When asked to imagine (and then draw) a digital device that would support the stimulation of prized subjective states, participants in this study described product use scenarios which included using technology to imagine future selves and situations, to strategize the fulfillment of goals, to track their progress toward reaching those goals, and to chronicle accomplishments and other benchmarks. Interactivity in their newly designed products was paramount for these participants, as it was seen to increase creativity and possibility while also increasing overall task effectiveness.

Every participant, at some point in their interview session, alluded to engaging the Ideal Self in relation to product use. Of the twelve participants, only one was unwilling or unable to speak substantively about possible uses for her product prototype to reach her personal goals. Even while mildly ridiculing such product use, this participant mentioned an Ideal Self:

Interviewer: Could it do anything else for you?

Participant 3: Make me exercise and eat right!
(Laughs.) That would be a miracle because it's not going to happen on its own That was being flip but it's true..... I guess *it could show me my dream body* when I reach for the goldfish (crackers.) (Laughs.) No, I wouldn't like that even if it was good for me.... Could it exercise for me...please? (Emphasis added.)

The remaining participants, however, imagined engaging their devices in useful ways that would help them envision and realize their idealized selves. The remainder of this section describes such product affordances and product use behaviors.

Representations of the Ideal Self

Participants wanted their product to act as a repository of representations of the Ideal Self. These representations were in a wide variety of formats, including graphics (photos and drawings), text (self-authored, articles, book excerpts), video, and audio. Participants also wanted to be able to add meaning to these representations through text and voice descriptions. These descriptions included commentary on the representations and also the ability to link representations. While perhaps more elaborately conceived that simple meta-tags, those participants who described this type of product affordance saw these descriptions as ways to update their interpretations of the representation artifacts themselves.

Journaling about the Ideal Self

Participants also wanted to reflect on these representations in ways that allowed a fuller understanding of a particular goal state, explored the origins of that goal, or imagined the implications of reaching that goal. They wanted to be able to associate particular entries with their goals, often wanting/expecting that the device would dynamically make such connections for them.

Strategizing about the Ideal Self

Participants saw their devices as actively supporting them in reaching the goal states embodied in their Ideal Selves:

Project Management. Five of the participants framed this support in terms reminiscent of project management, using concepts such as timelines, sequencing, time management, and list-making. In addition, two of the participant described their device having a "planner" or calendar as a feature.

Reminders. Participants wanted their product prototype to be "proactive," and to prompt them about tasks and appointments.

Evocations. Participants also talked about a different kind of reminder, which was less about activity and more about affinity with their goals. These reminders were described as being evocative about goal states and could be photos, video, music, or text quotations. Unlike reminders, evocations (the author's term) would not be time-related in the same way that task and appointment reminders would function. Instead, four participants described them as occurring somewhat randomly or triggered by context of use.

Progress toward the Ideal Self

Related to strategizing, participants wanted to be able to document their progress toward their goals. Three participants used the word "diary" in relation to regular documenting progress. Other participants described using their device to making quick notes about goal-related efforts or more in-depth reflection.

Networking the Ideal Self

Participants wanted to use their devices to connect them with others who shared the same goals. Six of the participants described sharing goal-related activities with people they already knew, such as family and friends. Three participants also described connecting with larger groups, referring to relevant web-sites (Web 2.0) such as Flickr and Weight Watchers.

Those participants who saw social interaction as being important to the product use experience described sharing goals and sharing progress benchmarks, asking for (and offering) assistance and emotional support, and keeping family and friends up to date as key product affordances.

Usability Concerns

While participants described dynamic systems that offered a highly mediated and interactive experience, they also had concerns about the device's usability, concerns which could affect their willingness to use their products regularly. The following four concerns were prominent in the data:

File Migration. Participants recognized that their imagined devices held a lot of content and four of the participants mentioned the "tedious" or "dull" process of migrating files onto the devices as a deterrent to product adoption.

Text Input and Output. All participants expressed a dislike of entering text via a keyboard and no participant included a keyboard on their product drawings. Ten of the participants mentioned a speech-based interface as being their preferred way to enter text into the device. The two remaining participants were unsure how to enter their thoughts (i.e., diary entries, etc) into the device. Interestingly, all participants mentioned being able to read their own text on a screen. This finding holds some interesting implications for the actual mechanics of self-reflective interaction. We live in a world where the tenets of good writing (spelling, grammar, metaphor, etc) are both valued less and lacking in online commentary. Must self-reflection follow the quality standards of written text to be considered "good" reflection?

Device Proactivity. Those participants who wanted their devices to proactively prompt them also expressed concerns about this same behavior. Using words like "irritating" and "maddening," participants knew they didn't want "too much" interaction. When asked how much is too much, one participant wanting the device itself to "figure that out" on its own.

Privacy vs. Sociability. Another point of ambiguity for these participants was the degree to which they would want others to be able to access the content on their devices. When asked whether other people could use their devices, participants responded with a wide variety of responses, ranging from absolute privacy to user-defined content areas that would either be private or public. This tension between privacy and sociability was also evident when asked about contexts of use, with some expectation that their devices

would be context aware and shield the screen and decrease the audio.

DISCUSSION

The findings included in this paper outline the basic affordances and product behaviors of a system supporting a purposeful engagement with life purpose and personal growth through a combination of information management, interpersonal communication, and self-reflection.

In this study, participants talked about themselves as a work in progress and envisioned technologies to support that progress. Participants were also for the most part comfortable imagining and talking about aspirational product use with some clarity and detail. They often expressed the wish that their devices were currently in existence.

Participants in this study expressed a willingness to use technology to deeply reflect on life processes at the macro level (i.e., life purpose) and also at the micro level of strategizing key steps to reach a particular goal or sharing goal state benchmarks with others.

Several factors helped participants access and engage such deep reflection for the purposes of this study. First, participants had a pre-existing interest in self-improvement media. They had a history of turning to inanimate objects to help process deeply personal content. Second, the "cherished object" interview evoked prized emotional states, memories, and values. These objects represented another example of the human ability to embed deeply personal (and perhaps transformative) meanings in made objects. The object interviews evoked these meanings and thus provided an emotional bridge from the past to possible futures even if the specific prized affective states did not make it into the final design. Finally, participants were given two opportunities to creatively express their envisioning process: the collage and the product drawing. In both cases, participants were able to utilize that rich state of being we call creativity to generate new possibilities, to integrate disparate forces, and to find resolution.

Perhaps these factors (pre-existing tendencies, grounding in actual felt experience, and creativity processes) that supported the participants' self-reflection constitute another level of design considerations for technologies supporting self-reflection. While the participants shared an interest in self-improvement media, the preferred genre of media varied wildly, from the Oprah television show to Buddhist websites to dieting books. One foundation for technologies supporting self-reflection then is an understanding of the constraining and empowering nature of genre-related design choices. Another foundation, perhaps, is the ability of technology to connect users to actual felt experiences. While certainly not a gate-keeper to self-reflection, the ability to make such connections can make the difference for users between a flat intellectual exercise and a generative experience. Finally, deep self-reflection becomes

embodied only through some sort of expressive act. By crafting a digital workspace that supports creative activity, designers and developers of technologies supporting self-reflection can help users experience new understandings and possibilities.

REFERENCES

1. Pine, J. and Gilmore, J. (1999). *The Experience Economy*, Harvard Business School Press.
2. Marketdata Enterprises (2006). Self-Improvement Products & Services. September 2006.
3. Ryff, C. and Keyes, C. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69(4), pp.719-727.
4. Baumeister, R. F. (1991). *Meanings of Life*. New York: Guilford.
5. Emmons, R. A. (1991). Personal strivings, daily life events, and psychological and physical well-being. *Journal of Personality*. 59: 453-72.
6. Diener, E., and Fujita, F. (1995). Resources, personal strivings, and subjective well-being: A nomothetic and ideographic approach. *Journal of Personality and Social Psychology*. 68: 926-35.
7. Ryff, C. and Singer, B. (2002). From social structure to biology: integrative science in pursuit of human health and well-being. In Snyder, C. and Lopez, S. (eds), *Handbook of Positive Psychology*. Oxford University Press, New York.
8. Oishi, S. (2000). Goals as cornerstones of subjective well-being: linking individuals and cultures. In Deiner, E. and Suh, E. (eds), *Culture and Subjective Well-Being*. MIT Press.
9. Boyatzis, R., and Akrivou, K. (2006). The ideal self as the driver of intentional change. *The Journal of Management Development*. 25(7): pp. 624-629.
10. Boldero, J. and Francis, J. (1999), Ideals, oughts, and self-regulation: are there qualitatively distinct self-guides? *Asian Journal of Social Psychology*, Vol. 2, pp. 343-55.
11. Nasby, W. (1997), "Self-consciousness and cognitive prototypes of the ideal self", *Journal of Research in Personality*, Vol. 31, pp. 543-63.
12. Sfard, A. and Prusak, A. (2005). Telling identities: in search of an analytic tool for investigating learning as a culturally shaped activity. *Educational Researcher*. 34(4): pp. 14-22.
13. Csikszentmihalyi, M. and Rochberg-Halton, E. (1981). *The Meaning of Things: Domestic Symbols and the Self*. New York, NY: Cambridge University Press.
14. Eliot, M. (2006). Personally meaningful experience in the context of product use. *Proceedings of the 2006 International Design and Emotion Conference*.
15. Sanders, E. and Williams, C. (2003). Harnessing people's creativity: Ideation and expression through visual communication. In Langford J and McDonagh-Philp D (Eds.), *Focus Groups: Supporting Effective Product Development*. New York, NY: Taylor and Francis, pp. 137-148.
16. Ozawa, S. and Inoshita, O. (2002). Trial of collage method to evaluate learning environments including CSCL. In *Proceedings of the International Conference on Computers in Education (ICCE'02)*.
17. Stappers, J. (2006). Creative connections: user, designer, context, and tools. *Personal and Ubiquitous Computing*, 10: pp. 95-100.
18. Glaser, B. and Strauss, A. (1967). *Discovery of Grounded Theory: Strategies for Qualitative Research*. Sociology Press
19. Boyatzis, R. (1998). *Transforming Qualitative Data: Thematic Analysis and Code Development*. Sage Publications.