
Gifting Interpretations of Personal Data

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CHI'18 Extended Abstracts, April 21–26, 2018, Montreal, QC, Canada

ACM 978-1-4503-5621-3/18/04.

<https://doi.org/10.1145/3170427.3188552>

Abstract

Research on physical representations of data has often used personal data as its focus. A core aim of making personal data physical is to provoke self-reflections through a felt experience. In this paper, we present a preliminary study which employs the idea of gift-giving as means to explore one's online data. Our main findings report strategies to relate to a stranger's data, as well as a conflict between what people think of their online self and what others are able to find. We discuss how the gifts became platforms for self-reflection, similar to physical data models. We then connect that to the engagement of a third person (gift-giver) in the process, highlighting the potential of such involvement. In the future, we focus on how to link people's meaningful artifacts with their personal data.

Author Keywords

Personal Data; Self-Reflections; Presentation of Self.

ACM Classification Keywords

H.5.m [Information interfaces and presentation (e.g., HCI)]:
Miscellaneous

Introduction

Personal data is a cultural phenomenon interwoven with the growth of technological devices. Individuals use personal devices to connect to their online accounts and share pic-

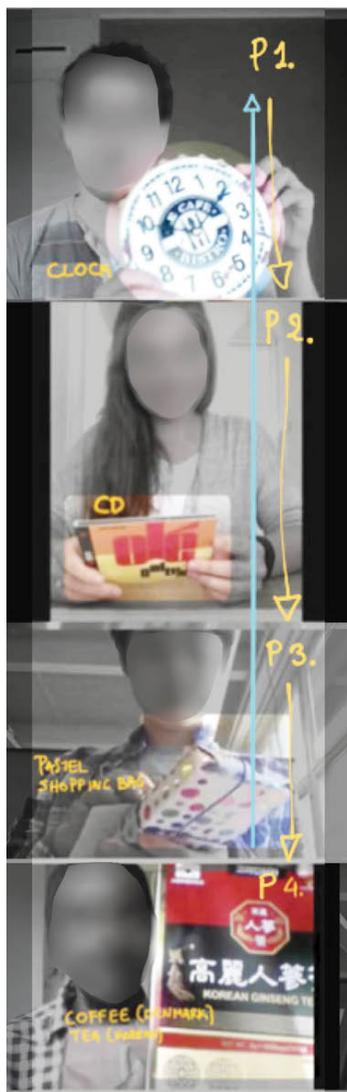


Figure 1: The flow of interactions and the gifts.

tures, activities, relationship status and other personal data with friends and followers. In addition, one has the option of making their account private or public controlling who can access their "private" information and who is forbidden to. Thus, people use social media as a canvas, constructing a picture of themselves by choosing the content they wish to show to others. The phenomenon of how we choose to appear in front of others is called presentation of self or impression management originally articulated by Goffman in 1956 [3]. His work demonstrates how people negotiate their identity in face-to-face encounters with others. Using the metaphor of life as a stage, Goffman associates the backstage with the private spaces and the presentation of self with performance.

Research on presentation of self on social media [4] has often used the same metaphor to articulate how the nature of this phenomenon is shaped when online. Differently, Hogan chooses another metaphor for this phenomenon, which we believe is closer to our rationale. In describing the impression management in online platforms he uses the "exhibitional approach" where the exhibitions are linked to websites and data are artifacts. He identifies as the audience of those exhibitions "*those who have and those who make use of access to the artifacts*" [5].

This paper explores the notion of personal data on social media as a material artifact. It focuses on gifts as data agents able to communicate how others may perceive us based on the information we have available online. Gifts are artifacts that are able to capture the identity and impression of the giver about the receiver [13]. Thus, inherently as objects, gifts resemble how people perceive us based on the information they have or know about us.

In addition, gifts often provoke self-reflections. For instance, almost all of us, after receiving a gift, have experienced re-

lecting on what the person who gave us the gift was thinking about when making their choice. This fact illustrates that in a way, gifts may be artifacts for reflections similar to what contemporary information systems do. Personal informatics [8] filter and store information about us and make predictions or suggestions that might fit our profiles. One might argue that gifts can also be seen as suggestions by others of what one might like.

This inquiry is based on the notion of gift-giving to capture how strangers might perceive others based on their available online information. We chose strangers since we were aiming to let people build their impression of others purely based on what they could find online. Our experiment may be considered as a micrography of Secret Santa on Reddit-gifts¹, which offers the opportunity for strangers to give and receive a gift based on a set of information they are provided about their gift candidate. While the focus of that example is to spread the nature of generosity and giving, our study sets the spotlight on how people look into each others' online available information and on how deep one can go into someone's profile when they are not acquainted.

We also have a particular interest on the artifacts themselves (i.e., the gifts) and how those might become platforms for self-reflection. Thus, this project investigates the following research questions: 1) *how might available online data be used to pick a meaningful present for a stranger?*, and 2) *how do people (receivers) make-sense of the gifts?*

Related Work

Artifacts that capture and represent one's personal data with the purpose of enabling users' reflections and behavior change have been broadly explored in the field of HCI.

¹www.redditgifts.com



Figure 2: Instructions were delivered in the format of a gift.

Such artifacts may share the qualities of augmented everyday objects or data sculptures [12]. The former employ persuasive techniques aiming to provoke users reflections towards behavioral change [2, 9], while the latter invites users to explore data through a felt experience [11].

The value of augmented everyday objects lies onto *"their immediate closeness and emotional connotations to the end users"* [12]. An example of a popular everyday object that technology has shaped into intelligent captors of one's physiological data are watches. Vande Moere argues that the affordances of data sculptures may enable reflections and *"it is often the act of reflecting itself that brings forward unforeseen associations, which then can be considered the 'data insights'"* [12]. A great example of data sculptures are the Sweat Atoms [7] which is a digital fabrication system that translates everyday physical activity into 3D printed artifacts. Through the forms of those artifacts users reflect on their activity performance.

What those examples have in common is that personal data is physically represented through the lens of the designer who decides on the formats and materials used to make the data representations (e.g., plastic in Sweat Atoms). In a way, the user loses control over how their personal data is represented. Gifts are somehow representations of how others interpret information they know about us and translate these info into artifacts. In a similar manner designers translate one's personal information into physical and let the user arrive into a reflective practice through sensation.

This paper compliments the aforementioned examples not through our gifts' material existence. It rather aims to provoke thoughts in terms of engaging others who share similar motivations upon data with the end users (e.g., activity data), to contribute in one's materialization of personal data.

The Case Study

Four individuals were recruited to participate in our experiment, with a gender-balanced sample (i.e., 2 females, 2 males). All four had different cultural and professional backgrounds since we were aiming at diversity in terms of insights. The participants were invited via e-mail. The general idea was that all of them would receive a gift from one person and give a gift to a different one, thus there would be no reciprocal gift-giving. Figure 1 illustrates the flow of who gave a gift to whom. A week after our request was accepted the instructions of participation were delivered to them in the format of a gift (Figure 2). The instructions were split in three tasks including the name and a picture of the receiver of each gift. The purpose of the picture was to ensure the participants would look online to the assigned person.

The first task was to search online and obtain as much information about the person each participant was assigned. Participants were given 10 days (to avoid putting pressure on them), and a budget of 10 Euros to spend on the present (limiting their buying options). After the gifts were bought, we personally delivered the presents to their recipients.

The second task invited people to take a picture of their gift *before and after opening it*. It also suggested using their mobile phones to record their spontaneous reactions, first impressions, and thoughts, which would normally have been missed if we only relied on interviews. The third and last tasks included sharing their videos and pictures with us.

After the completion of this first phase, we conducted semi-structured interviews with each participant. Our set of questions were concerned with the process of how people browsed online through each others' information as well as how successful their gift choices were. Affinity diagramming [10] was used to analyze the interview data.

GIVER: P1, Brazilian, 25, graduate student in computational biology. **RECEIVER:** P2. **STRATEGY:** 1. On Facebook P1 could not access much info, 2. The on LinkedIn, 3. Searched on Google where P1 found info related to P2's vocation. **STIMULI:** A video that P1 found through P2's LinkedIn account showing her singing in a choir. P1 found P2 in the crowd of that video. **GIFT:** A Jazz CD in a blender box (element of surprise). **P2'S AVAILABLE INFO:** Mostly work related info, Pictures & videos.

*consulted a Finnish friend on local jazz music. At the end P1 bought music that they knew and personally enjoyed.

GIVER: P2, 27, Finnish, Project Manager. **RECEIVER:** P3. **STRATEGY:** 1.Googled P2's name, 2.Led to LinkedIn, 3.Then to a Pinterest profile, 3.Then googled P2 name again in relation to P2's work, also P2's blog. **STIMULI:** Pictures found on Facebook illustrating P3's identity as a parent and a design researcher. **GIFT** : A fabric shopping bag ("Finnish design") and pastel colors. **P3'S AVAILABLE INFO:** Family Pictures, Blog stories & work info.

*consulted a friend who has children in relating to P3.

* All participants accounts were private allowing limited access to their personal info.

Figure 3: P1 and P2 and their meaning making practices.

Findings

Participants as Gift-Givers

1) *How might available online data be used to pick a meaningful present for a stranger?* In purchasing a present for each other, 3/4 participants were able to pick a relevant gift for a stranger only by browsing through their online data. However, they used different strategies.

Our participants implied that with the information they found online they built a mental image of the receiver, as if they were building the receivers' online profiles from scratch: *"I created a profile of the person in my mind, based on the information I found"* says P4 and from that interpretation, a gift is picked *"with a bit of information you can find [on the] Internet about someone, you can go out and find something they may like"* (P1). However, while building those personal profiles, the most difficult task for them was relating to the receiver: *"The first difficulty was to relate"* (P2). In fact this happened because our participants were in very different stages in their life and had different cultural backgrounds. The latter appears to be central when the participants were building the mental image of each other and in certain cases influenced their gift choices (See Figure 3, 4).

In relation to the ways of arriving to the gifts choices, one might argue that we saw four completely different strategies. The givers relied on specific information that captured their attention to buy a gift however, that information was processed differently by each. For example, P1 focused on music because they found videos of the receiver (P2) singing in a choir, hence they purchased a CD of Jazz music: *"I took two small pieces of info and then started walking around places"* (P1). That video was found through LinkedIn², which was a surprise since P2's vocation is not connected to music.

²LinkedIn. <https://www.linkedin.com/>

On the other hand, P2 tried to combine different aspects of P3's life in their present idea. Thus, P2 found through P3's pictures and a personal blog that P3 is a designer and a mother. Based on that, P2's gift combined both personal and professional aspects. In addition to that, P2 mentioned that they kept processing those info in the back of their mind during the week they had to buy the present until the last day when they made the purchase. Noticeably, P3 mentions *"she figured out who I am"* referring to P2.

In P3's case we discerned a lack of motivation in buying a meaningful present based on P4's online data mentioning that it was difficult to find much info about P4: *"Data available [on the] internet may not be enough to think of a present."* (P3) The gift P3 purchased was related to P3's cultural background: *"At the end, I thought whatever will be"*, P3 said defying the purpose of the study which was not just buying a gift for a stranger but do it based on one's available online information. Last, P4 mentioned that his choice was inspired based on the "feeling" P1's pictures gave them about that person: *"A fast moving person"*, P4 said in describing their impression.

Participants as Receivers

2) *How might people (receivers) make-sense of the gifts?* After receiving the gift, the participants were thinking of how and why those gifts were selected. They attempted to guess the connections between their personal online data and the presents. Noticeably, when the participants received gifts that surprised them positively they could not understand where their gift-givers had found the data that informed those gift choices: *"I am highly addicted to coffee so you were spot on, I don't know from where in my profile you can get that"* (P4). Certainly, in a meta-level, that provoked self-reflections upon what our participants had available online. That resulted in them experiencing the contra-

GIVER: P3, 35, Korean, Doctoral Candidate. **RECEIVER:** P4. **STRATEGY:** 1.Facebook, could not find any profile, 2.Linkedin, 3. Google and last P4's work's. **STIMULI:** Could not find anything inspiring to buy a gift. **GIFT:** Traditional Korean tea and Danish Coffee. **P4'S AVAILABLE INFO:** Pictures & vocation.

GIVER: P4, 33, Ethiopian, Fablab manager. **RECEIVER:** P1. **STRATEGY:** 1.Facebook. **STIMULI:** Combination of P1's photos and info illustrating that P1 is a "fast moving person". **GIFT:** A vintage clock (symbolic element). **P1'S AVAILABLE INFO:** Mostly Pictures.

Figure 4: P3 and P4 and their meaning making practices.

diction between what they believed to be publicly available, and what actually was.

In another case, the receiver was surprised to get something that they had on their list of objects to buy, which made them wonder of how the giver guessed it: *"I started thinking, how did he know?...It was one of the things that was in my list to buy because, I always thought it is cool to have a clock somewhere."* (P1)

In some cases, besides the gift being a positive surprise, one was also able to discern characteristics of their giver based on their gift: *"the person who bought the gift for me is a researcher and he/she knows about music"* (P2). Noticeably, both observations were accurate. Those observations were made based on the wrapping of the gift that included the element of surprise, the depth of P2's personal information reached by P1, as well as by the gift itself.

Discussion

Regardless of whether our participants' personal data matched the causes that provoked arriving to such gift-choices, the process of engaging a stranger into "filtering" their personal data itself made them rethink what of theirs is available online. Hence, how others might see them based on that info.

Hogan argues "that Facebook allows only friends or 'friends of friends' to see specific content does not suggest that this content signifies a backstage to other possible content that is available to anyone to see." [5] Thus, while one might have their profile private and allow only limited information to be viewed by non-friends, that does not necessarily mean that this content is "less personal" than what is visible to their friends.

More specifically, our study demonstrated that available online personal data was enough for one to make per-

sonalized gift-choices. Thus the objects (gifts) represent metaphorically the personal data of the receiver where an effort is made to match the gift with the person. This same result is shown in the exchange of online postcards between strangers, where personalization is an element of communication [6], in our case, the gift communicates the representation of the receiver.

Thus, one's preconceptions of how they appear online is being contrasted with the conceptions of others about them. This conflict was apparent in our findings eliciting thoughts on the importance of the opinions of others on who we are on social media. As Cooley argues when referring to the concept of self "What we call me, mine or myself is, then, not something separate from general life...[it] is both general and individual" [1]. Meaning that our definition of self arises in relation to other social phenomena and it is never a separate self-standing concept. In the same way others may play a significant role in what one perceives as "I".

Now considering how relevant the concept of personal data has been in data physicalization and tangible user interfaces we believe that rethinking the concept of "I", by inviting a third person, in such projects might inspire novel representations of data where personal physical representations are both *general and individual*.

Conclusions and Future Work

In this paper we described a preliminary study with four participants which explored the concept of the presentation of self in social media by employing the immortal practice of gift-giving. Our findings report that the engagement of a stranger, third person, in exploring one's personal data provoked self-reflections on one's online info.

In the future, we plan to investigate the potential of actively engaging others, in the physical representation of someone

else's personal data. We will specifically focus on meaningful artifacts, inherited or gifted, attempting to merge them with peoples' personal data. Our aim is to challenge the preconceptions one might have about their data as well as to motivate complex self-reflections.

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