Personalization and Design
by Monica Estela Gonzalez Veron

A Thesis Submitted in Candidacy for the Degree of
Master of Design in Interaction Design

The School of Design
Carnegie Mellon University

Monica E. Gonzalez Veron                         Richard Buchanan, Advisor

A mi familia
Por quienes he sido y he aprendido a ser
Contents

Acknowledgements ................................................................. 3

Introduction ............................................................................. 4

Personalization and Design .................................................. 6

Conclusion ............................................................................. 18

Bibliography ........................................................................... 22
Acknowledgements

I wish to thank the School of Design for allowing me to take part on the Interaction Design program.

To my friends and peers always ready and willing to read and read again to give me feedback. Nassim, thank you for your insights and encouragement.

Thanks to Kynamatrix Research Network for their enthusiasm and support towards the development of this essay.
Introduction

Being formed as an Industrial Designer, I have always placed great value in objects. In product design, the main job of the Industrial Designer is to plan for the action that the product will support and figure out the optimal qualities it will need to have in order to fit the human body and its different ranges of movement. The task is to provide tools that satisfy needs by supporting physical activities. If a product is well designed, it should adapt to the people using it. The designer considers the human body constraints, mechanics, and physics laws. As an Industrial Designer my goal was to create useful products to support human activities. In all cases, the intended use of a new product would shape its appearance.

Yet through my experience, I have observed that human choices are not based only in functionality. When choosing clothes, for example, we do not always care about the functional features they have. Two pairs of sneakers can have the same functions, yet we buy the one that ‘fits’ us. I have always wondered what makes us like or dislike a product more than another. What makes us feel comfortable with our sneakers of choice? And why do we feel so uncomfortable if we need to wear something we don’t like?
In the case of clothes, one can give many reasons for choice. The color, the form, they are exactly what we are and what we want to be. Even as time goes by there is a very simple understanding about why we still keep those old sneakers we love so much. They have been our company throughout many places and experiences.

But when speaking of Interaction Design, the landscape is different. As an example we can think of digital interfaces. These interfaces are the exact opposite to those old sneakers. They are not easy to use; they don’t change to accommodate us. Their functioning is completely unrelated to what we see and touch. In this case, our interaction is usually mechanized and frustrating. In dealing with computers we learn and adapt but we hardly develop any emotional bond with them. Whenever a new version comes out, we switch hoping that this time it will be easier to use. Hoping that this time, like our sneakers it will help us to go to new places just by walking with us.

The difference between a computer interface and our sneakers is mainly that, with the sneakers, we share a story. They are ‘ours’; they are personal. How is it that some products share our stories? Is personalization an individual process that only happens outside the domain of design? How do the objects we design can become personal for someone other than the designer? I wonder if design can ‘fit’ as clothes do.

What makes a product be personal? To better understand this I plan to analyze personal objects through the perspectives of three authors: Carl Rogers, Ervin Goffman and Erik Eriksson. I will attempt to answer three questions: 1. How does a person develop meaningful relationships with products? 2. How do products become a vehicle for personal expression? And finally, 3. Can we design for personalization?
Personalization and Design

The individual nature of personal objects

Personalization is an individual act in which a user develops a intimate bond with some object. When the product becomes “our own”, it becomes individual and personal. Personal objects are those that share our story, those with which we have a meaningful relationship. Rogers refers to this kind of relationship as a helping relationship. As defined by Rogers a helping relationship is that where “at least one of the parties has the intent of promoting the growth, development, maturity, improved functioning, improved coping with life of the other. The other, in this sense, may be one individual or a group. To put it in another way, a helping relationship might be defined as one in which one of the participants intends that there should come about, in one or both parties, more appreciation of, more expression of, more functional use of the latent inner resources of the individual.” Helping relationships are important because it is through a helping relationship that we find out new things about ourselves. We become aware of our feelings and how society and culture continue to shape the perception we have of ourselves. This realization empowers us and, not only can we accept ourselves in a better way we are able to re-define our individual and social roles.

According to Rogers, there are three basic characteristics that form a helping relationship. In Rogers’ example, they are applied in
therapy. But since they are based in conversation and dialogue, we can relate them to design as participant in a dialogue with the user. The main characteristics of a helping relationship are: congruence, unconditional positive regard, and empathy. Congruence is formed by the consistency and logic of the communication. The therapist must be a unified or integrated person. The ideas shared must be honest and true to the individual experiences. He is authentic. He not only means what he says but the expression of his ideas is always connected to his deepest feelings. The second condition is that "the therapist experiences a warm caring for the client". As explained by Rogers, this means that the therapist has "an acceptance of and caring for the client as a separate person, with permission for him to have his own feelings and experiences, and to find his own meanings in them." The therapist has Unconditional Positive Regard towards the client. He takes an open, un-judging position towards the patient's attitudes, free and absolute acceptance of the patient's feelings and to the explanations about life and himself, as he understands them. The third condition we will consider is Empathy. Empathy to Rogers is characterized by a will to see the world the way the client does. "To sense the client's private world as if it were your own...to sense the client's anger, fear, or confusion as if it were your own, yet without your own anger, fear or confusion getting bound up in it". Empathy's value lies in it's ability to bring company; company brings new experiences and new experiences bring new understanding.

A meaningful relationship in therapy
I suggest that this can be understood in terms of products by looking carefully into what a personal product means for its owner. How do we develop a meaningful relationship with a product and what are the characteristics that a product needs to have in order for this kind of relationship to happen. To illustrate this, I ask you to consider Picture 1; in it we can see a young girl’s chair, this is not just any chair, it is a special chair because it is personal. But what makes it personal?

A meaningful relationship with a product
It is mine, I am unique and special

Unconditional positive regard
The chair is positive because it was made to serve its user while delivering an appropriate message its colors are spring like and happy. The chair empowers because it can be used on demand and at will. When Danielle sits on it, she is rested and assured that the chair is a place that is only for her. While at the chair, Danielle can engage in multiple kinds of activities that require being sit, such as eating at the table or coloring on a desk. Because of the chair, these activities now are accessible to her. The chair serves Danielle as a place to rest.
The chair also protects and keeps Danielle off the ground away from the floor risks and discomforts. It is safe because the materials and structure are strong and meant to fit Danielle’s body. Since the chair’s use and messages do not affect human rights, dignity or capabilities there are no evident ethical issues associated with it.

**Empathy**

The chair is supportive by being sensitive to its owner particularities. Its shape is made to fit young Danielle’s body, it is a small size meant for a small girl. Danielle can sit on it and feel good about it. The chair is also supportive by being modifiable nature can be seen in how Danielle’s actions influence it; it can be painted, moved, played with etc. Danielle is free to define the content and character of her chair. Like a white canvas we can think of the chair being emotionally open since there is no limitation its use and content, such as name and flowers, they are inevitably defined by the owner.

**Congruence**

The congruence of the chair can be seen in its solid structure, and the clearness of its function. Its permanence through time and space allows Danielle to get a consistent idea of the chair as it assists her in many day-to-day activities. The congruence of the chair can also be seen in its inherent logic; the relationship between its parts and the whole of the chair are arranged in a planned in a designed fashion with a particular objective in mind. It is logical in construction and in action.

*A meaningful relationship with a product?*
Expression through personal objects

Ervin Goffman explains that it is through expression that we communicate who we are, what we do, where we belong, what we believe in and how we expect to be treated. As suggested by Goffman, we express through performances. These performances are proper ways of conducting oneself defined by a complex cultural configuration.

Depending on how complex a society is, the differentiation of its members will take different shapes. In the case of a small society with little complexity, differentiation of its members will be done by kinship resulting in more individual and free performances being carried out by its members. If a society is bigger the differentiation of its individuals, instead of being organized by family and blood ties is done by affiliation to established clans. In this kind of organization, institutionalized social fronts are used for differentiation between the members of various clans. Performers inside a complex society must not only perform the social roles for recognition but also for positive identification with the tasks or productive activities that are associated with their particular role. More abstract and stereotyped expectations are built around performances and performers. These fixed expectations result in collective acts where a group of performers play always the same routine to express their belonging to a defined social group. Performances occur all the time, where people are involved in any kind of interpersonal interaction a performance is being delivered.
Performances are usually composed of three main elements: the setting, the performer's personal front and the manner or performance routine.

_Different situations, different roles_
The setting is the location where the action takes place. It involves furniture, decor physical layout, and other background items, which supply the scenery and stage props for the spate of human action played out before, within, or upon it. The setting is most of the times geographically fixed; the performances that happen regularly in it are also inevitably geographically fixed. Performers need to be situated in it to start their act.

The performer’s personal front will follow the performer wherever he goes. A personal front is composed of the items of expressive equipment that shape the performer’s appearance such as clothing, sex, age, racial characteristics.

The manner in which the interaction occurs is the routine in which a performance is delivered, what a performer does, the way he speaks & moves. A routine is a set of activities and messages sent to a particular social audience. If there are members of different social groups in the audience, the performer can have more than one routine in the same setting.

Products are an intrinsic part of any performance. They not only relate to the setting but more importantly products become tools for expression and allies inside a performance. Products are selected, modified and utilized in many different ways depending on the situation and the people around the performer.
These principles can be observed in the following picture. In it we can see an activist marching to promote her political candidate.

**Developing a personal narrative through products**

**This is who I am and how I expect to be treated**
Personalization and Design

**Personal Front**
Because of the items of expressive equipment in the photo, we can guess that the lady in the picture may be a proactive liberal that is part of a community. Our militant lady is wearing a hand-decorated shirt that contains political propaganda. The shirt contains a very clear statement "Vote John Kerry, Vote for the best". If we observe carefully, there are multiple types and styles of handwriting, this talks about more that one person writing and suggests that she belongs to a group and that she is acting as a spoke person for them. She is also wearing a backpack with colorful pens on it. This suggests that she is a practical woman and it may even hint that she is related to the education industry.

**Setting**
The scene is situated in a political manifestation; the main intent of the militants is to express their points of view such as political bondage and inclinations. This setting is a complex environment where other people, the physical space and even the date and time influence the performance.

**Routine**
She is walking in a public manifestation. This is conducted in a determined fashion where people peacefully express their political views in a physical and open way.
Personal objects, a manifestation of identity

When an object is personal, it is part of us. It becomes our company. We share our history with it; it is part of who we are and what we do. It reinforces the understanding that we have of being ourselves and that makes us different from every one else. As part of our consciousness, the product becomes part of our identity. When designing for personalization, it is not enough to study our user from the outside. For a product to become personal, it should empower our user’s vision of the world.

Identity allows an individual to take his or her place in society and is formed from the tangible evidence we have about being ourselves. To Erikson, ego formation or identity is a complex process that develops gradually through experiences in our lives. Identity is always a result of our upbringing. Different stages, different crises, different influences, different choices affect the way we perceive the world and ourselves. Erikson focuses on the adolescent as an example to illustrate how identity formation is a life long process, ruled by our experiences and choices. Erikson suggests that identity is formed by “a ‘conflict free’ habitual use of a dominant faculty, to be elaborated in an occupation; a limitless resource, a feedback, as it were, from the immediate exercise of this occupation, from the companionship it provides, and for its tradition, and finally and intelligible theory of the processes of life.”

As illustrated in the diagram below, who we are is defined by what we do, who is with us and what we believe in.
I argue that personal objects can become a manifestation of identity by empowering the understanding that an individual has of being himself. In the diagram below I offer an interpolation of some identity elements and a list of desirable attributes in a product designed for personalization. An example of this kind of product can be seen in Picture 3. Note that as mentioned before, identity is an ever-changing and very complex part of human reasoning. The following analysis relates only to some visible identity aspects as depicted on the following picture.

**Products that embody identity**

**This is where I belong**

*Picture 3. Traffic Manager from Coyocacan*
“What I do”

The picture depicts a traffic manager from Coyoacan, a small town inside Mexico City. Like a cop’s uniform, the visual attributes of his tools entitle him to perform; his job consists of directing people and cars through everyday traffic. These tools make his job easier because of the protection offered by the helmet and the voice magnifying attributes of the speaker, he is able to perform his job efficiently.

“Who is with me”

The helmet is decorated with two main symbols that provide context and suggest the groups he belongs to. One being a small wolf and the other a yellow sticker. The small wolf is representative of a local authority. This indicates that the government employs him and that he lives in a certain area. The yellow sticker contains the logo of one of the left wing political parties; this shows his political affiliations.

“What I believe in”

The yellow sticker of the political party means more than just a group of people. It also embodies a set of ideals and aspirations influenced by the philosophy characteristic of the party. The helmet is acting as a manifestation of these beliefs. Combined with the sticker, the helmet empowers the public display of a set of beliefs; the helmet is now an ally and spoke person of its owner values.

Personal objects, a manifestation of identity

<table>
<thead>
<tr>
<th>Provide tools</th>
<th>Design as facilitator</th>
</tr>
</thead>
<tbody>
<tr>
<td>-make things easier</td>
<td>-facilitate human interaction</td>
</tr>
<tr>
<td>-make things better</td>
<td>-promote communication</td>
</tr>
<tr>
<td>Understand goals</td>
<td>Design as companionship</td>
</tr>
<tr>
<td>-improve processes</td>
<td>-communicate with the user</td>
</tr>
<tr>
<td>-provide feedback</td>
<td>-follow interaction rules</td>
</tr>
<tr>
<td>-aid problem solving</td>
<td>-use the user’s language</td>
</tr>
</tbody>
</table>

- Reflect values
- Embody beliefs & aspirations
- Allow the user to live by his/her values
Conclusion

I believe we can understand how we relate to personal objects by analyzing three different perspectives about the way we relate to ourselves and to society. As mentioned at the beginning of this essay, my exploration started with the intent of answering three questions, my discoveries are as follows.

1. Can we design for personalization?

Personal objects cannot be designed. Therefore, personalization is not within the capacity of the designer.

2. How does a person develop meaningful relationships with products?

The process of personalization is an individual one and based on what Rogers would call a Helping Relationship. Design cannot be personal until the user grants it this condition. Yet, as the therapist in Rogers’ example, design can provide tools for this relationship to exist. As a participant in a dialogue, the designer through design can facilitate the process of personalization. The designer can design opportunities for personalization. A product designed to support personalization should allow the user to build a trustful relationship that empowers him to express in a meaningful way, not only who he is but also who he wants to be.

People is shaped by experience (Barnlund, Rogers), this experience is as individual and singular as the persons themselves. The factors that
influence these experiences are as varied as all the things, people and  
thoughts that exist through time and space. Since experiences cannot  
be shared they will never be the same for people. For the designer, it  
is not possible to completely understand what a particular person, in  
this case the user, feels and thinks. How his feelings, thoughts and  
circumstances influence the perception he has of a product. However,  
I believe that a structured design exploration can help the designer be  
more aware of what it is and its consequences so that he will be able to  
inform his design decisions better.

3. How do products become a vehicle for personal expression?
Design is a participant in a dialogue sustained by an individual and  
the world he lives in. As a communicative entity; design appeals to  
perception in every level of the human experience. Self expression is  
becomes a targeted message composed by a myriad of elements with  
infinite interpretation possibilities; these interpretations will be as  
varied as the number of people who receives it.

Informing particular design decisions to provide opportunities  
for personalization
The main intent of my exploration was to identify key elements  
in personal objects. The elements I have outlined are by no means  
exhaustive, however I propose that the combination of them with  
design practice can help designers better understand how we relate  
to products. I offer you a model that can aid the exploration of how a  
particular product can become personal.
I provide you with an example of how this map could be used. I have applied it as an analysis tool for an existing and popular product of design that is notable because of its perception of being a highly personal product: the Apple iPod. As described by its manufacturer the iPod is a “pocket-sized, ultralight hard-drive based device” the iPod is mainly used as a portable music player. The iPod reigns in a highly competitive and saturated market where lighter, smaller and cheaper music players can be found. I believe that the personalization opportunities provided by the iPod have been one of the key factors on its widespread success. The iPod phenomenon has many more dimensions than the ones covered here however, the following diagram attempts to unveil some of its emotional characteristics and use them as an example for how concrete features in a standard product can fulfill subjective and personal needs.
Opportunities for Personalization in the Apple iPod

- **personalization**
- **design**

It is all about the music. The relationship with our iPods is extremely personal because they hold our music. The iPod allows us to maintain and intensify the preexistent relationship we have with our music.

- **strong technology**
  - long battery life
  - reasonable life span
  - multiple media
  - high storage capacity
  - portability
  - resistant to moderate mistreatment

- **ease of use**
  - gestural interface
  - music player conventions

- **trustful relationship**

- **meaningful**

- **customization opportunities**
  - on the interior, the content is "created by the user"
  - the exterior is a eager canvas. The Braun style white box allows for multiple accessories and decorations

- **reflect ownership**
Bibliography


Hayden, Herrera, Frida: A Biography of Frida Kahlo: Perennial, 2002


Wirkkala, Tapio, Eye, Hand, and Thought :Taideteollisuusmuseo, 2000