

This book deals with frames.

It sets out to frame the emergence of a new consumer, and a likely future, and asks designers to consider a new theoretical framework for their work today. By over-viewing social, technological and cultural occurrences, past present and future, it targets the product design profession and, at its core, its relationship with the consumer. This time, the consumer is dealt with not as a source of inspiration, as someone to educate or even someone to passively benefit from, but as someone to engage with in conversation, someone to work with. This is not just to benefit the consumer, but also to maintain the validity of a profession that is facing serious questions with the stagnation of old agendas on one hand, and the imminent appearance of home manufacturing on a large scale on the other.

Settings for this dialogue are negotiated in this book, new frames of interiors that could set a space for it to occur in. A design frame is a key in this thesis, framing a playing field, offering a paradigm in which product design sets itself partially free. It offers consumers a way to take part in the creative process, to enable a dialogue that acknowledges each other's qualities. Finally, the consideration of a communicational frame is referred to; new interfaces that might create a strong, tangible language for this dialogue.

This thesis is aimed at designers. It hopes to trigger a thought process as well as a design process, to challenge and confront them with a new reality emerging and the need to change to be ready for it. As such, it might generate debate about the role designers choose to take, and the world they would need to react to.

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Thesis, IM masters program,
Design Academy Eindhoven,
2010

SOCIALISM: LOOKING FORWARD Design for a new consumer



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INTRODUCTION

Groups of people are joining up on social networks, pooling their money to buy a building, save a cinema from demolition, or help a journalist in a lawsuit¹; Peer to peer loan banks are connecting people with extra cash to others who need a loan; Travelers are sleeping on strangers' couches around the world; album production is financed by the fans.

The social effects of the Internet, and the web 2.0 in specific, have long been discussed. The few examples described above suggest the emergence of a new consumer, affected by the current economic crisis; a consumer who understands the joint power of a community, using new social networks. This new consumer is taking direct control rather than being led by the powers that be, and leverages people who share his agendas to claim this control. It is a new social being, dare I say, a part-time socialist: one who uses capitalist tools – an individual within a community, a creative being.

This new consumer, charged with new tools, is calling for a new design - the practice that has always targeted consumers. The need for a re-evaluation of the profession becomes even more evident with the scent of another revolution already in our nostrils, one that will decentralize the means of production themselves - The revolution of home fabrication.

The text offered here aims to trigger a thought process as well as a design one. It questions the role of the designer in this changing world and his necessities for fresh guidelines, agendas and ideologies to work by, while maintaining the relevance of the profession. It will try to define a new consumer emerging, suggest a feasible development of design in the next two decades, and offer a path for designers to take today with the future in mind. As such, it might generate debate about the role designers choose to take, and the world they would need to react to.

¹ These are three cases appearing in Israel through 2009 accordingly: The phenomena of purchase groups, where groups buy a land to construct their own apartment building, skipping contractors and realtors; To the case of Smadar cinema in Jerusalem, gathering more than 5000 participants through "Facebook" to buy it, saving it from demolition; To the "I am Mickey" group, 3000 people pooling money to share the fine if Israeli journalist Mickey Rosenthal was to lose a liability suit filed by a high powered Israeli family for a documentary he made.

CHAPTER 1: A SOCIALIST WITH CAPITALIST TOOLS

Pierre-Joseph Proudhon is one of the fathers of 19th century socialism, more specifically anarcho-syndicalism. The first self-proclaimed anarchist and author of the renowned saying “property is theft”, had ideas about socialism far different from Marx’s proletarian revolution. In answer to the question of who controls the means of production Proudhon envisioned the forms of syndicates and cooperatives, workers managing themselves in communities - “from state to syndicate”. In his essay on “the bank of the people”, he phrases the direct link between the manufacturer and consumer:

“Therefore let us found an institution having three divisions,--namely, the Association for Mutual Credit, the Syndicate of Production, and the Syndicate of Consumption; and to the whole we will give the name of the Bank of the People.”

In the core of the cooperative stands the idea of a community (in relatively small groups, rather than the governmental control of production in communism, or the private ownership of capitalism) in which the consumer becomes the manufacturer and vice-versa. Since the member of the community is the direct owner of the manufacturing tools, he is also the direct benefactor of the manufactured goods.

A 150 years later Proudhon’s idea of the community seems to become a reality, at least in certain aspects of life. Interestingly enough, they are not formed through ideology, and definitely not in the structures Proudhon imagined. Yet, the technological revolution the Internet brought, its accessibility and democratization of interface (more specifically with Web 2.0), allows individuals and communities exactly what Proudhon foresaw: we are the direct manufacturers and consumers of our own products. These can be very different. We can see the product as activism and social debate in a website like “Facebook”, on different levels (and quality) of agendas, where we produce our causes and join other’s with a click of a button; in websites like “Wikipedia” and “Flickr” the product is knowledge, where we share ours and consume the community’s; In open source programming our shared product is software. There are many examples like these, and as mentioned in the examples shown in the introduction we are now seeing it move back into the real world: we produce and consume our own activism in the cases of the cinema or the journalist for instance.

So we can derive our first guideline to define a consumer which operates in this new, “part-time socialist” society:

CONSUMER=MANUFACTURER

But what is this community? The Kibbutz-communities forming in Israel (based on the soviet Kolkhoz) are perhaps the best example of the socialist perception of a community manifested in reality under the basic formula 'from each according to his capability, to each according to his needs'. The individual contributes to the community in order to sustain, fulfilling his individualistic needs by fulfilling the community's. Thus the individual and the community are one, keeping a balance of supporting each other. The Kibbutz failed eventually, as the balance was broken. As the Kibbutz was all embracing, taking over all aspects of life (education, economics, living, work, political agendas, etc.), the community's needs collided with the needs of the individual, exposed to the benefits of capitalist life through media, and the choice was black and white – you're either all in or you are out. Further more, it was based on governmental support – when the government left socialism behind, it could not sustain itself.

The social networks forming online, offer a much more open choice of communities, focused around specific agendas, sustained either by donation or capitalist methods such as selling advertising space. These networks give people a chance to join several communities, making the idea of the commune more flexible and more time-contained to achieve a goal, benefitting the individual by utilizing the power of the group. Again we can refer to the examples of the introduction – a group is formulated to take control over the price and qualities of a building; to take control of a cultural asset – serving the individual viewer of the cinema, using people who share the same agenda; to protest against the powers that be, joining up to overrule a court's decision. These do not form purely ideologically, but rather from a consumer state of mind, understanding he could own his ideals, while being able to contact a group that shares them with him.

So we are able to form our second guideline:

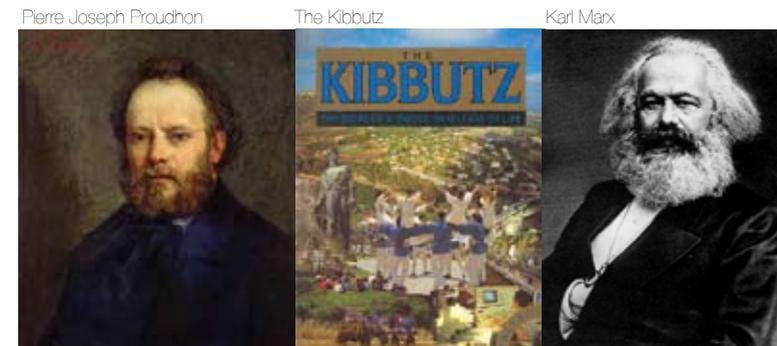
INDIVIDUAL = COMMUNITY

Now we might turn to Karl Marx, the most prominent of socialists. The Communist manifesto, written by Marx and Friedrich Engels, was formed around the question of control over the means of production. It anchored

change in an inevitable revolution that would eliminate the middle and upper class, which own and control production, enslaving the proletariat. In essence, this is a vision of a society with a direct interaction between manufacturer and consumer within a shared community, resisting those who stand in the way of this vision.

More and more modern forms of communal interaction offer ways to skip the middlemen. New ones are emerging everyday. Growing forces in the music industry are crowd-sourcing. They are directly linked to the consumers through finance, distribution and feedback, skipping the conventional role of the record companies; Websites like “Couchsurfing” allow us to skip hotel companies and travel guides and directly communicate with locals in our vacation destination; New soccer teams are directly managed by their fans; and in the “real world” examples shown in the introduction: the court's power as the middleman is overruled by the community in the case of the journalist – by sharing the fine they make the punishment null and void. These are just a few examples (see diagram), but it is clear that if we're to understand how this new form of socialism will affect new fields, we have another assignment after we find the intermediaries:

ELIMINATE THE MIDDLEMAN



a new consumer means a new designer. This new designer needs a new paradigm – an agenda that references his consumers. Three questions need to be answered:

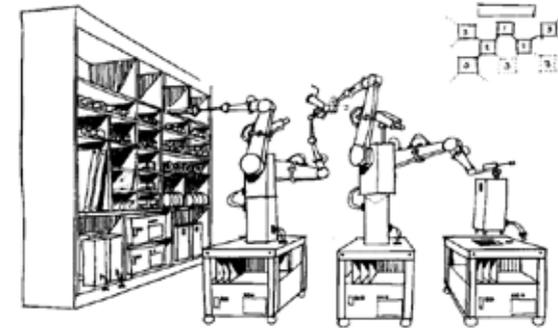
1. Who owns the means of production? (Who is the middleman?)
2. How does the consumer become a manufacturer?
3. How can products co-serve both an individual and a community?

Some of the qualities of the new online consumer are discussed in social and economic circles, some advocating its freedom, sometimes pointing at an ever more intricate, capitalist enslavement. To some extent, at least, this is a semi-socialist endeavor - even if it uses capitalist tools. These are not necessarily opposing ideas, and they do not exclude each other - as the state capitalism of communist China demonstrates. Understanding this 'socialist' aspect will lead us to quite a feasible, and not so distant future.

ELIMINATING THE MIDDLEMEN: PARTIAL LIST OF VICTIMS

Purchase groups: Land purchase in a group for residential building construction			CONTRACTORS, REAL-ESTATE COMPANIES
Smadar Cinema group: pooling money to purchase cinema to be owned by the viewers			CITY HALL
"I am micky": an obligation to participate in a fine if issued as part of a liability suit			COURTS
Slice the pie: A platform for financing musicians' albums			RECORD COMPANIES
Zopa: a peer based money lending platform			LOAN BANKS
Ebbsfleet united: a soccer team owned and managed by the fans			SOCCER OWNERS
Couch surfing: people host others in their home, showing them around their hometown			HOTELS, TRAVEL AGENCIES
Wikipedia: an open source encyclopedia where everybody could contribute			ENCYCLOPEDIA PUBLISHERS
Linux: an open source programming operating system			SOFTWARE COMPANIES

Von Neumann machine



CHAPTER 2: THE REVOLUTION OF HOME FABRICATION

The power of this transformation into a “part-time” socialism is strengthened when looking into the not-so-distant future. Technological revolutions have often engined social change, and the ones that dealt with de-centralization of power, have on numerous occasions had liberating effects. The invention of the printing press aided Martin Luther in spreading his word, forever changing the domination of the Catholic Church over Europe. The printing press in effect de-centralized knowledge, and can also be linked to the protest leading to the French revolution. The industrial revolution, with a de-centralization of consumption, directly links with both capitalism and 19th century socialism.

The Information revolution, manifested in the use of the Internet, has stirred up voices of a new form of consumer-socialism, creating an opportunity for communities to assume control over different aspects of their lives. (There are exceptions, and the battle of control over this tool is far from over, whether it be copyright laws in the US or the situation with Google in China.) Yet, a bigger revolution is forming, one that might quite literally comply with the socialist question. The de-centralization of the means of production themselves, making us free of dependency: the revolution of home fabrication.

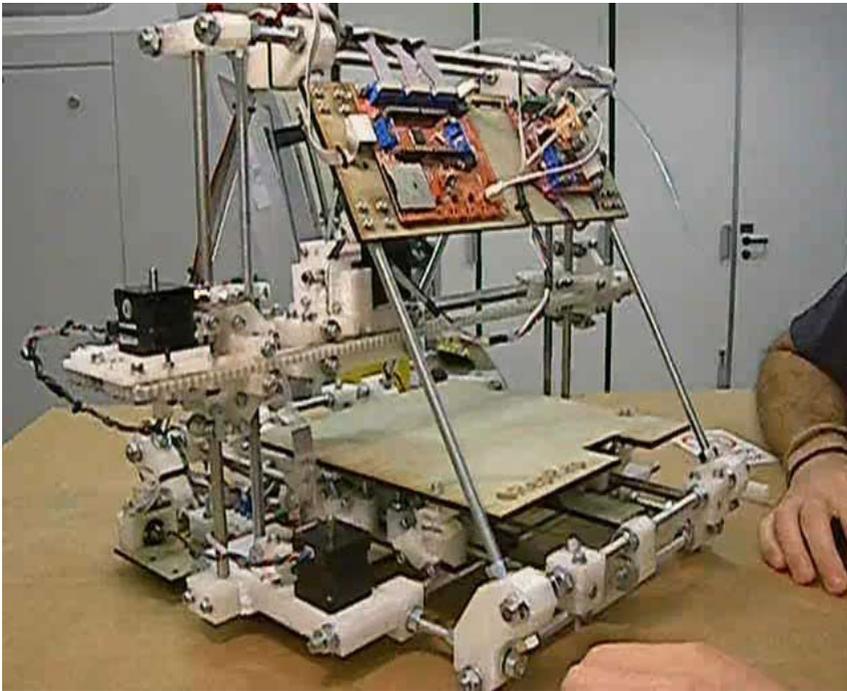
FROM RAPID-PROTOTYPING TO 3D PRINTING

Rapid prototyping was first invented as a technique to model designs and accurately and quickly, examining shape and structure for further development. Yet today’s printers are becoming exponentially more advanced. The Israeli company “Objet”, for example, can not only print working mechanisms in different materials, but offers 18 different qualities of

material (Softness, flexibility, translucency, etc.), 11 of which can be printed simultaneously. So we move from rapid prototyping to 3D printing – we are able to produce complicated, final objects at a click of a button, made of different materials, and combining intricate mechanisms. There is far more to come. Conductive plastics, metal printing, electronic circuits printing are in the process of becoming a reality (some already exist), and they will be cheap and accessible.

REPRAP AND SOCIAL MANUFACTURING

Just this last January, Chris Anderson, chief editor of Wired magazine, authored an article titled “In the next industrial revolution, atoms are the new bits”. Advancements in affordable technologies for home manufacturing have been starting to make their mark. Perhaps most notable of these are advancements in 3d printing, and among these, the most intriguing example is the RepRap 3d printer. Since 2005 Adrian Bowyer at Bath University in England has been developing the basis for this revolution (in an open-source



RepRap version 2 "Mendel"

strategy), the philosophers' stone of computing: a self-reproducing machine. The RepRap (Reproducing Rapid prototyper) 3D printer is completely open source and costs about 500\$. It is able to print digital design files in 3D, and can already print more than 40% of the parts of its own structure. In the years to come it will be 100% self-reproductive, becoming more advanced and accurate, as it will be able to print mechanisms, circuits and different materials simultaneously, making it possible to print (almost) any type of product.

This is truly a revolution. If every owner of a 3d printer could print another one for his friends for no other cost than raw material it would be on every desktop in no time. We would all have a factory right next to our coffee machine, and manufacture almost anything with it.

THE PREMISES

These predications are not far-fetched and not so far into the future. Both Prof. Neil Gershenfeld (the Director of MIT's Center for Bits and Atoms) and author Bruce Sterling (science fiction writer and design critic) predict this to happen around 2030. Both predict another important quality of this transformation – Material will be reusable (in a way, the viability of the printer depends on it, and indeed research into de-polymerizing polymers is on going). With these two assumptions – we all have the ability to manufacture at home and material is reusable, we can try and imagine the world of the future, the changing relations to object, and the new social structure evolving.

NO RESPONSIBILITY

In a world of home production with reusable matter and clean energy, the heavy burden that comes with objects – both physical and ethical – practically disappears. A closed (or almost closed, there might be some lose of material in the process) system of matter means that resource mining becomes marginal, factories in 3rd world countries close down, and (maybe most importantly), transport is cut down drastically. 85% of goods and materials in the world are on transport, causing massive pollution and other environmental hazards. Manufacturing at home practically eliminates these transportations, creating a radically more sustainable society. In the highly “aware” world of today, when we buy an object we buy with it a liability, one that tells our conscience that we should consider the global implications that come as a baggage with this object. When this baggage disappears we are again ethically free to consume freely (also remembering that the price of manufacturing is cut

down to raw material only) with no environmental implications. Part of the meaning of the object, the negative one at least, vanishes, and with it, its importance in time.

THE ENDLESS SHELF

"...This thinker observed that all the books, no matter how diverse they might be, are made up of the same elements: the space, the period, the comma, the twenty-two letters of the alphabet. He also alleged a fact which travelers have confirmed: In the vast Library there are no two identical books. From these two incontrovertible premises he deduced that the Library is total and that its shelves register all the possible combinations of the twenty-odd orthographical symbols (a number which, though extremely vast, is not infinite): Everything: the minutely detailed history of the future, the archangels' autobiographies, the faithful catalogues of the Library, thousands and thousands of false catalogues, the demonstration of the fallacy of those catalogues, the demonstration of the fallacy of the true catalogue, the Gnostic gospel of Basilides, the commentary on that gospel, the commentary on the commentary on that gospel, the true story of your death, the translation of every book in all languages, the interpolations of every book in all books..."

Jorge Louis Borges, The library of Babel

Similar to what happened in the knowledge, photo and music industry, the cutting of costs for production and manufacturing and the datafication of matter will give a stage to the long tail of design. Wikipedia is often accused of amateurism. It gives everyone with online access a platform to share knowledge. There is no expert supervision and the information is not always double-checked and confirmed. Yet it is used on a vast scale, and its advantages as an updatable, growing, democratic database cannot be dismissed. The decentralization of design and manufacturing tools might lead to amateurism to a large extent, but many more people will be able to act as designers, even as a hobby or a one-time contribution.

The democratization and computerization of design tools, would give any enthusiast a chance to shape objects or reshape existing ones. These small, one-off contributions in re-thinking forms, functions and concepts might open new doors to what is still largely a formalist profession. This, in turn will lead to such an overflow of designs that will result in an "endless shelf" of potential styles and products. It is not that many products exist – but rather,



hypothetically speaking at least, all products potentially exist – this is the endless shelf.

How then will we approach objects? Even in the Internet today, a shift is made from the question of how to choose to that of how to search. Like the Internet for information, we will have platforms, portals for easy, approachable information segmented under topics (f.i. wikipedia for knowledge, myspace for music) and tagged data for easier search (f.i. flickr for images). Moreover, the popularity vote will have a big influence – the size of a social network one has, the links he has to others, will heighten his exposure. The fact that popular products would rise to consciousness means that the judge would be of users - in functionality, but also as a social value – it is communities based around products and designers, nominating them as better, elected by popular vote – a meritocracy.

But like Borges's library, each of these objects would have infinite parallel versions existing with minor changes, as all products already exist. We might ask then if the "truest" or "most perfect" would float through popular vote, or like Borges's story, we might skip the "right" one because we wouldn't know how to recognize it. Will the group filter the best result, or is there no such

thing?

Either way, the object's shape loses relevance. We can easily control it – when object becomes data, you could store your grandfather's watch, broken, scratched, discolored, as a file to be reprinted at any time, changed, reinvented. A shift in focus is then made – from shape and history of objects, to the details and tools the machine language would drive design too, and to the agendas these objects could serve.

DESIGNERS OF THE FUTURE

Objects of the future lose physical meaning. If we could reuse matter and manufacture at home, if there are no sustainability issues, what will stop us from changing our house every week? Objects become like fashion – the house is the body, the cloths are the objects. We can shred them, feed them back to the machine, change the vase while flowers are still fresh. Who then is the designer in this society? Here are some ideas, while many more might emerge, in all levels of “in-between”:

The amateur

The amateur designer could be anyone. He designs individual objects for the machine. He can use design programs to make his own designs or tweak others. He could use tangible tools of interaction to shape his object (a usb connected digital clay for example). He designs with adjectives, not with nouns – he doesn't use material: wood, metal, etc., but attributes for the “Matter” – the basic material the machine uses. He speaks of softness rather than upholstery, he says shiny and conductive instead of metal, elastic instead of rubber. He has no commitment to quality or functionality. He is commissioned by no one. He shapes for himself and shares with his community. The amateur designer is a relatively new profession of the coming future, already existing in other data fields today (literature, film, etc.).

The Craftsmen

Similar to today, the craftsman of the future manufactures prestige. He uses natural materials like wood and stone, or hyper-natural like living organisms and does not hide their qualities with color or finish. He emphasizes the qualities the machine doesn't need – connections. Seams become bigger. Nails, screws, etc. become elements of craft. The machine can

print materials simultaneously and needs no connections between materials. He is commissioned by individuals and makes unique pieces. He is a jeweler, manufacturing by hand. He is constantly copied and copies machine design. He is the future of today's star designer.

The Engineer

This designer makes intricate machines. He is the final voice after an open-source process. He designs systems of transport, heavy machinery for construction and agriculture. He has enough knowledge of engineering to commit to quality, functionality and safety. He is commissioned by communities and uses his own communities for an open source design process. He designs the parts and plans of construction to be made by big printers. He is the future of the industrial designer.

The social designer

In the future described, Retail in its physical sense is almost gone. Social connections are already done online. There are less and less reasons to interact with the world around. The social designer is a terrorist, advocating for a physical interaction, as designers have always done, but not commissioned by anyone but his own ideals. He creates viruses that infect objects, forcing their owners to interact. It is true that the physical meaning of objects becomes marginal, but their meaning as data can increase. In his book “Shaping things”, Bruce Sterling introduces the “Spime” – an object that not only is fabricated by a computer, but via tags is tracked by ones. It is an object that is tracked in time – it accumulates experiences, histories, and data about his relations to other objects. Data can also be instilled in it. The social designer designs communities through objects – people who use the social designers objects are part of his community, knowingly or not – the objects will be drawn to other objects of the same community. These communities can relate to the physical attributes they received by their owner and their similarity to objects owned by people of the same taste; They can be drawn to objects by

SOFT - NATURAL



SOFTNESS - MACHINE



the same designer – to his signature; They can be drawn to personal data instilled in them; They can be drawn by the online social connection between the owners. These objects trigger interaction between individuals when necessities no longer do. The social designer is the designer of our physical interactions with others, through objects and their qualities.



CHAPTER 3: WHAT NOW?

The new consumer generated by the Internet revolution suggests a need for new designer. Like the industrial revolution and the first world war led to modernism, like the second world war eventually led to post-modernism, and as the revolutions of the 80's and 90's (the introduction of the computer into the workspace, neo liberalism, the end of the cold war, and the speeding of globalization) led to computerized architecture and desktop publishing.

As a counter movement perhaps it has also led to the re-imagined goal of product design as a social commentator and a storyteller in what today is referred to as conceptual design, which also aimed to rediscover a link between craft and design, steering away, to some extent, from the mass production industrial processes. The call for sustainable design followed shortly suit when the implications of global processes of became clear.

Yet, the calls for sustainable design, and the revival of localized style and craft, raise a problem when taking into consideration the not-so-distant future mentioned in chapter 2. The datafication of objects leads to an overflow of designs of all styles and forms to exist, hinting a need for a shift of focus from the end object to something else – to the tools of creation, to the details that form a language of design rather than a singular object, and to agendas objects could serve.

If we shift our sight back on today's new consumer, then this future is to be considered in sync with the qualities the consumer already holds today - If we are to find a forward step for design, this thesis suggests that we are to regard this "part-time Socialist" consumer and his qualities.

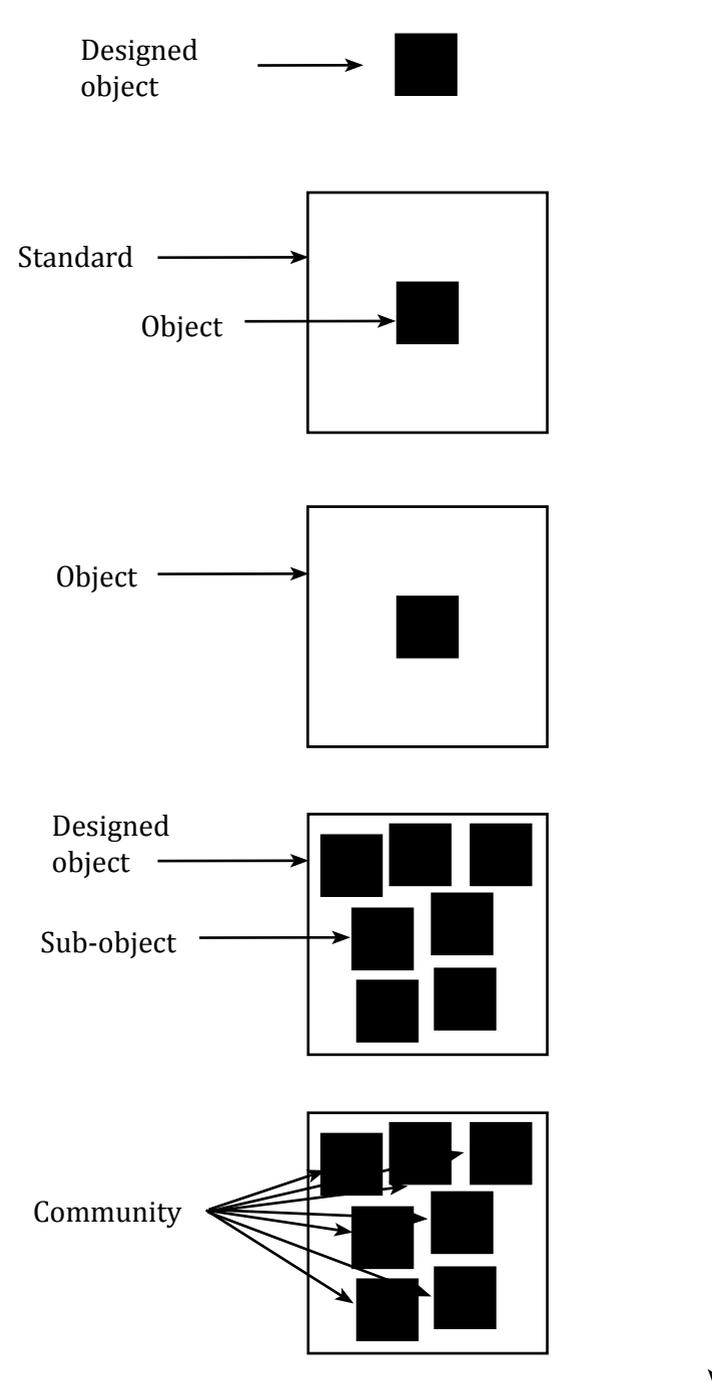
The first quality of the new consumer is that he had become a manufacturer as well. That he is involved in the creative process and it itself (the act of virtuosity, the creative moment, the temporal event) becomes of much greater importance than the product. To fulfill this need, while considering the lessening importance of end objects in the future described, we might suggest that a designer can take a step back in control – leaving the consumer room enough for his own creativity, interpretation, reinterpretation and even re-contextualization of the design. In simpler terms: the designer shifts from the creator of products to the creator of rules and standards, to the frame in which objects reside which in turn generate a community by sharing a common denominator.

It is true that standards have existed for centuries, and have been used by designers and engineers to work with and create greater compatibility of their creations. Yet a more focused standardization, one that offers playfulness rather than just compliance with a program, one that offers a specific aesthetic rather than trying to leave it out of the picture, and above all, one that directs itself to the consumer rather than to other professionals with unique knowledge, can create a new form of designer and of design, where the former acts as a guiding hand (using his knowledge in aesthetics, ergonomics and manufacturing processes) to the interpretation of others.

Andrew Blauvelt, head of the design studio at the Walker art center in Minneapolis, refers to a shift in design as well, calling it relational design. He claims through analysis of the history of the profession that design now aims to deal more with the program and context, and indeed works with terms such as open-source, unfinished objects, and crowd sourcing, terms that are taken from the language of the web. Yet, the focus is still on objects that are charged with meaning (in the examples shared by Blauvelt, also gimmicky and without a specific purpose in a discussion on aesthetic and function, but rather only with “openness” of the design to take different forms). But relational design theory reinforces the concept that design needs to re-adapt to a world that focuses on potential (objects in that case) rather than their necessary true existence.

In a way this perception exists. The extreme medialization of design objects, generated to a great deal by computers and the internet, but also by the clear purpose of design to be “shot well” and quickly understood, led to a design scene where objects are existing as images more than they do in reality (and the borders between the two are blurring anyway). For that reason exactly there is a need not to pull back but to push forward – to examine what purpose design has in a semi-virtual environment. As mentioned before a shift is suggested from the singular product to that of the “frame” in which multiple products can reside and share a common base. To re-appropriate socialist terms: a shift from the spectacle to the situation.

But to understand how product design can approach and utilize the online environment, another social link is missing – the role of technologies of distribution in this change, and the role they might still take.



CHAPTER 4: DISTRIBUTION AND LIBERATION

As was mentioned earlier, technological advancements have many times throughout history engined social change. Most influential of these were the technologies of de-centralization: be it of knowledge (the printing press), of consumption (the industrial revolution), of information (the internet), or in the not-so-distant future, of production itself. Technically, these are technologies that regard (whether directly or not) distribution - distribution in the sense of affordability and accessibility.

As in the examples shown, distribution of knowledge, of goods, of information, leads to some new form of freedom. At least in the democratic sense - isn't that what democracy's about? Equal opportunities? And indeed, these examples have led to liberal concepts - the Protestant church, the French republic, the free market and the social state (which might oppose on a political sense, but nonetheless both deal with a form of liberalism, be it humanist, economic or community driven).

While the future might hold yet another form of liberalization in the distribution of the means of manufacturing, there are already new forms of distribution that were introduced with the computer and the Internet. These, introduced to design today, could start the "liberation" of the field, which, in some opinions, has reached a certain point of stagnation.

Design is in its basis a formalist endeavor, but one targeted at users, thus introducing the considerations of ergonomics, interface, affordability, and later content and context. Yet, its adaptation to industrial processes has led to a standardization of many ergonomic and stylistic qualities. This was done for social reasons, epitomized in the modernist ideology, perhaps the key ethos of 20th century, at least in regards to design. In that sense one might claim that this dream has fulfilled itself, and affordable, functional, aesthetic products that consider interface and ergonomics are all around. IKEA, with all the criticism it had drawn is perhaps the best manifestation of that ideology. If the goal was to drag design from the hands of engineers and craftsman to the skilled hands of the designer, which targeted the human and the industry alike, then it could be quite safely claimed that this goal has been achieved.

Parallel to that, and perhaps as a counter-movement (as it seems every cultural field progresses by ideologies and their counter-ideologies), the last two decades have introduced new forms of high-end design on one hand, and

ecologically driven design on the other. The former dealt with content and context, and with the introduction of alternatives to the mass-produced objects, by reintroducing craft (or an interpretation of it). This was best represented in Dutch design of the 90's. It sought new definitions for the design endeavor, and argued in favor of the story, the making process, and the products as their carriers. While it targeted social questions, those remained questions in many cases, or observations, detached from the shackles of modernism and its need for mass produced solutions. Thus, design has become to a growing extent highly personally driven, carrying observations, intuitions, research, and making of sole creators. The individualization of the designer, combined with the growing power of media, has created the star-designer phenomena, and established these new designers as creators of luxury (perhaps best shown in the limited, numbered series they produced, again, because of the craft involved). This new design status has pushed it in too the realm of art, as the borders between the two began to blur. Design was now shown in art galleries and became collectors' items. Eventually, it had also deterred design from its social goals, and while its image has been widely distributed, the products themselves have become more and more centralized. This, in a way, blocks design's ability to truthfully progress further in addressing the social questions that faced it, and indeed, the field that was once considered subversive and innovative had become the mainstream image of design, filling the showrooms of Milan and magazines around the world. It has become the "it" thing of today, and therefore a thing of the past.

On the other hand, another dominant concept of the last two decades had been the ecologically driven design, or sustainable design; questioning the influences that buildings and mass-produced objects had on the eco-systems we live in. While it has been successful in raising awareness to this topic (or at-least generated debate), its biggest successes have been system oriented, and therefore centralized. It has been to consumers more about branding and awareness, creating a movement, and therefore its projects were again more about image and while industry driven solutions for consumers were made they remained marginal. This field has focused on adding a new consideration for designers (such as ergonomics, functionality and affordability in modernist times), and urged a change in global systems (targeting governments and global companies). Eventually, while it is an important consideration, it is not the goal of a product, just as ergonomics isn't. A product might need to comply with these codes, but they don't discuss the consumer's goals, needs and agendas, and it does not focus necessarily on the benefits of the human (at least not in the short run), but rather relates to the entire eco-system of the

planet as its design target.

These two dominant approaches which work parallel to mass-produced industrial design (which deals still with the modernist questions in regards to new products - functionality, problem solving, commercial factors) are centralizing, and therefore not directed at the social. These are also concepts and questions that have not changed much in the last two decades.

But to regain an approach targeted at users and consumers, a need arises (as described in the beginning of this chapter) to examine new systems of distribution, and to "liberate" design from its stagnation by utilizing the growing partnership of consumers in the creative process. These agendas can urge design to re-target its audience and deter it from its centralization in hands of the sole creator on one hand, and its unsustainable centralization by the industry on the other.

In short, it could be claimed, that if modernism pushed for the de-centralization and distribution of the designed object utilizing the industry, the next step (with the future of manufacturing in mind), might call for a de-centralization of the design process itself (to a point, at least), by utilizing the tools offered online.

CHAPTER 5: THE FRAMES – DEGREES OF REPRESENTATION

The web offers new systems of distribution, which are tightly linked to new types of utilities generated by the transformation of once physical elements into the realm of data (photos, music, text, etc.). This digitization still needed a physical entry point for humans to interact with – frames that link the physical with the digital.

The interior has always been a frame for organization of space and data, as well as a place for representation of one's means, taste, style, and lifestyle. The culture of design, especially in the post world war II era, had based itself on the vision of the interior as such a space, clearly shown in American ads of the 50's, in Julius Shulman's images, and up to today, in Vitra and IKEA catalogs. Yet, within these newfound meeting places between digital and physical, new types of interiors have come to be – places one could use for personalization, organization and representation. These interiors, or frames of interaction, exist on different levels of user involvement, and on different levels of physicality.

These interiors are simply new functions introduced to us:

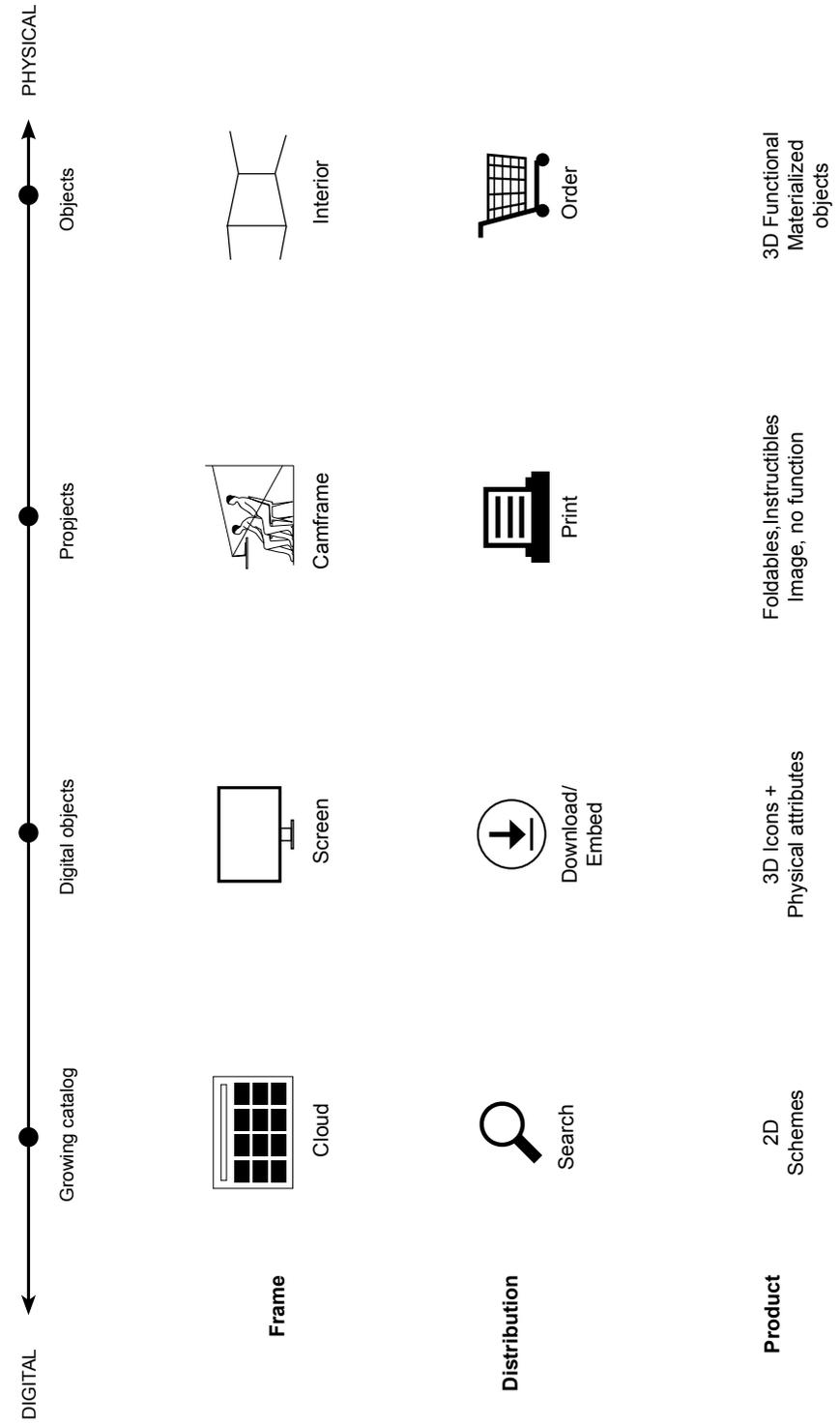
- The Internet itself, with its infinite data, and our need to approach and organize it, through search engines, links and bookmarks.
- The digital interior, our personal space – our desktop or personal website, a place where much like our physical interior, we use to organize our belongings, but also represent ourselves – by the design of our website, by our desktop background.
- The webcam frame, a purely representative interior, but one with growing importance, in video conferencing, in Youtube videos, in chat rooms. The video is taking more and more space online, due to the ability to broadcast it with growing bandwidth technologies.
- Our physical interior still remains as it always has been, but might need to accommodate some of these new functions.

Each one of these frames or interiors, gives the consumer a type of control, a type of freedom of creativity in his choice of organization and objects the frame carries. Each of these frames allows for a bit of liberation, not only by the creative involvement, but also by the dramatic cutting down of costs.

This is literally free (well, almost), as predicted in the 3D printed future. Design, adapting to these new interiors, understanding the financial model of “free” – the seemingly “win-win” situation suggested online, can take its first significant foothold in new media, by making itself open. It is an act of spreading out, introducing design to uncharted territories - not in an imperialistic way, but as a suggestion.

An example: The frame of the screen – the digital interior, presenting itself as Iphone applications, as icons, folders, desktops, could be far more than themes or a new folder icon. Objects could be made that might exist in this interior, offering new concepts of organization and functionality. These objects could be offered online for downloading or embedding, by designers or by amateurs. Yet, These same objects downloaded for free on your desktop could also exist in your home. The object then exists on several levels of price, physicality and functionality, and requires the professional knowledge of the designer to make. It distributes itself on different levels and thus benefits more exposure but without losing its purpose. Moreover, it de-centralizes itself; it is free for everybody, at least in some interior, physical or digital.

The next chapters will expand on these interiors, and suggest possible uses the designer could make of them.



CHAPTER 6: PROJECTS

The representative qualities of the digital persona are apparent. Social networks, Blogging, twittering, etc. act as points of entry to an alter-self online. Especially interesting is what is basically a technological development concerning bandwidth – the introduction and growing importance of video online for the past five years.

Examples of the widely spread uses of video online already exist: video conferencing like skype, online TV broadcasting (and a growing library of streaming shows and movies), Sites like chat roulette, and perhaps most dominant – Youtube.

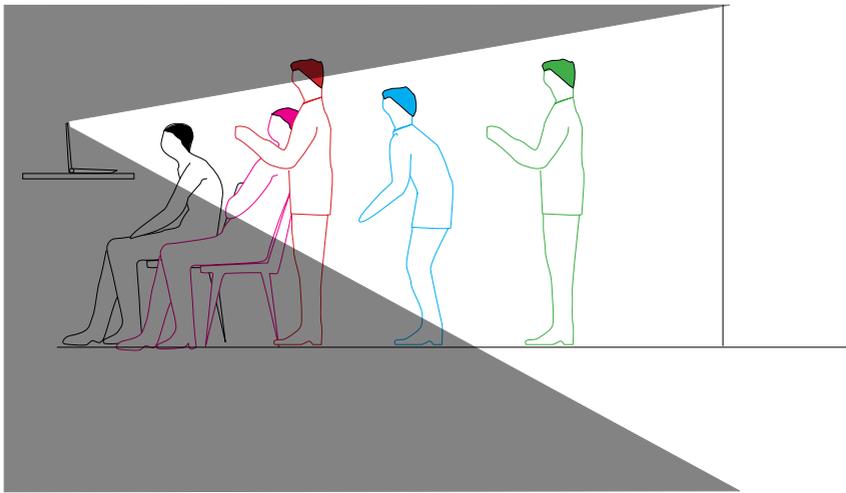
Youtube, with its channels, Vlogging (video blogging) and viral videos, is a scene for personal expression and entertainment, for sharing video segments or, in the last few years, as a platform for alternative and intricate advertising. But it has a much more interesting aspect of importance - it has gradually revealed itself as a political and critical platform: a digital public sphere.

The unique quality of Youtube above other tools for debate and politics (such as social networks and other above mentioned examples) is its strong distributive quality through the viral video and its liberating function as a reflection of possibilities rather than direct activism. Youtube uses the lure of



Hitler on the iPad, Youtube

Webcam frame



entertainment to generate communities based on a shared aesthetics. While the singular video may be entertaining or not, viewed together they form a political or critical standpoint.

Lip-sync videos are a good example. They all share a similar aesthetics – generated by the simplicity of operation of the webcam, its location and quality. Lip sync videos share a similar frame. They mostly refer to well known songs and relate to them in a comic way. As singular videos they may be funny or not. As a communal product they stake a claim on culture, leisure, exhibitionism and copyrights. The same goes for the use being done in a specific scene from the film “The fall”, in which by the simple use of subtitles, Hitler becomes the columnist of our time. Here again, a specific structure is used, based on the film, and while every single video is judged by its entertainment qualities – as a whole they generate a critical claim on culture, icons, the act of journalism, etc. there are many such examples.

The representations of the online homemade videos focused so far mostly on the front of the image – the content. While some videos have targeted the media and entertainment industry – journalism, music, films and television, The Vlogs presented people’s urge to communicate themselves, show themselves, and as such focused on the direct connection between the content of speech and facial expressions, as a social indicator. Yet, the liberation that Youtube as a sphere of commentary and creativity offered the fields of media, can introduce itself again to facilitate a form of “liberation”

Lipsyncing videos screenshots



of design – to open it up to consumer creativity and criticism, by using it to control and contextualize the video representation. As such, it extends the use of design as an image, voiding it from function while utilizing the qualities of designed objects as tools of representation - of lifestyle, of self. In this sense, the objects are no longer represented on a white background, but in turn – become the background itself.

In other words – the media of video utilizes the image of objects. Those images when manifested in 3D, to allow them to be played with in real-time, are called props. They set the environment of the drama about to happen. Objects with a sole purpose of being props (which from now on will be referred to a “Propjects”) can have the same effect on the homemade video representation. By being able to manipulate them, to make your own, and by their easy interchangeability, invite creativity; Creativity which manifests itself first by their composition, later by the components and finally by their ability to be stripped away from function – to be fantastic, to avoid the rules of nature - to be unprofessional, But in context.

Through the **distribution system of print**, of home publishing, the designer could work along side the amateurs, offering his designs as foldables, or as a set of instructions, to be printed or made as Propjects in different scales, to be changed or distorted by the users – so they can design their own cam frame. The designs are then distributed as an image, but with a function – not of presentation (like the magazine), but of representation – the users could own the object for free in their camera frame interior.

CHAPTER 7: DIGITAL OBJECTS, PHYSICAL QUALITIES

The digital interior, mentioned in the example of chapter 5, has existed since the appearance of the hard drive, modeled by the imagery of the office (files, Folders, etc.), and has been a visually designed product since 1984, when Apple introduced the GUI (Graphic user interface). Much like the physical interior, it is used for organization, personalization, and representation. The versatility offered to the user, however, is still very limited. Using the office metaphor once again, the users choice is limited to filing and categorizing (though not in search), and perhaps to a photo on the desk (the desktop background) and some executive toys (icons, design themes, etc.).

Yet an office interior has much more – the tools for organization – desks, libraries, chairs, drawers, shelves, trays and much more. These objects are used to not only expand the way data is being stored in the office space systematically, but also visually – books go into libraries, music into cd shelves, clothes into closets, files into cupboards and so on. As more and more types of data are being introduced into the digital environment (such as photos, music, books, and with the 3d printer, the object might soon join), new types of categorization, hierarchy and navigation are required. It is possible today to highlight folders or appropriate specific icons for them, but through time, and as more data is being collected these mechanisms become complex once again. The search option is still very limited, and asks for deep user involvement in assigning keywords and dates so they will be found in the future.

New approaches to the desktop are being examined: The Bumptop software, transforming the desktop into a 3d experience, offers different levels of hierarchy and categorization in a visual way while expanding the level of personalization of this space (using pictures and patterns to cover the floor and walls); Cooliris, a browser add-on, allows for a different web image search experience, by presenting all the found photos as previews on an endless wall, easily browsed through. Another interesting approach, and the most popular one today, is Widgets. Widgets are small windows or icons that act as objects located in the desktop space, performing different functions – a clock, a weather report, a remote control for music, an address book. They offer a new approach for this interior, personalized under functions through digital objects, yet not involved with the organization of the data.

The visual and object oriented filing system of the physical office, combined

Widgets



BumPtop 3D desktop



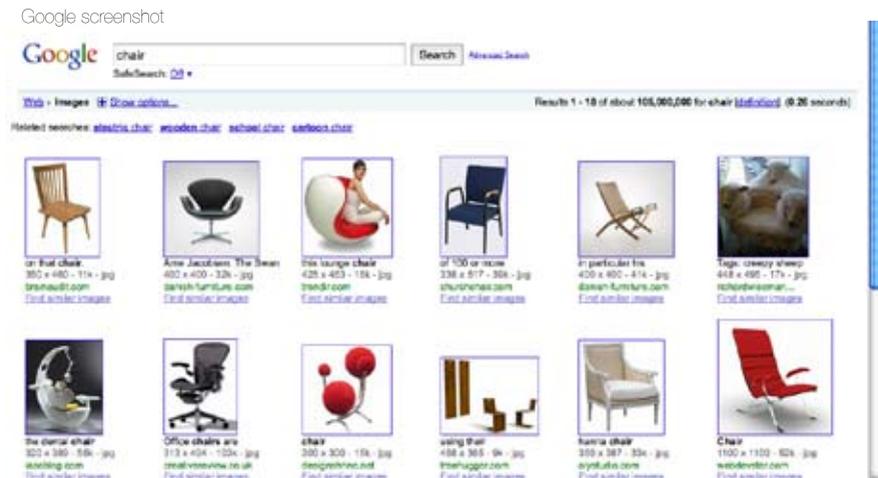
with the enhanced capabilities of digital functions can offer not only a more intuitive and comprehensible digital filing and personalization system, but also offer an entry point for product designers and amateurs into this digital interior. Objects presented as 3d images, perhaps given physical qualities such as gravitation, illumination, rejection, can transform the desktop from a wall into an office and a personal space, as computers are turning out to be. So a library on your desktop will hold your digital books, a desk your family photos and open documents, a cabinet your files. These might reside inside the existing GUI of windows, Mac or Linux, as an add-on at first, one that can present these objects, much as BumPtop does.

It should be mentioned that the same might apply for the personal website, this time focused more on representation. The same objects might be used to allow others to visually navigate, and to represent the webpage owner by his choice of digital objects.

Thus, by **the distribution systems of downloading and embedding**, the digital interior is being liberated.



The Newton virus by Troica



CHAPTER 8: A GROWING CATALOG

The web has amassed such a huge amount of uncategorized information that it is no surprise that its key issue, or problem, is the system of navigation through it. That, along with its innovative financial model, is the reason for Google's meteoric success. The clever algorithm introduced by Google has put its focus on the user's navigation habits, studying his taste, preferences and interests. Thus the results of the search are constantly categorized by popularity and their correspondence with the target of the search, as been defined by the searchers. The connection to the user's need for personalized results has taken an interest shift recently as Facebook took the title of most used website over Google. It seems that the internet consumers are relying more and more on their social networks to direct them to relevant information and word of mouth is becoming a more relevant source of information than the indexing systems search engines has offered. Yet, indexing still has an important role.

We might examine Google images as an example. The result of a search for "chair" would index the most popular matches with the word "chair", in affect offering a catalog of possible results of "chair". Catalog is the key word here, especially as we are dealing in this thesis with products that hold within them many possibilities. The design of tools or standards offers, as mentioned, style and function but not necessarily a program, and as the designer takes a step back, the catalog actually becomes the best representation of the object

designed by presenting it as a phenomenon and as a set of possibilities.

So, by utilizing the image search engines to examine a specific “designer tool”, the result is growing a catalog where each interpretation is added to the rest, and later categorized by popularity. The web catalog becomes a representation of the designer’s project on one hand and a popularity and representative tool for the consumer’s creative interpretation on the other.

By **the Distribution system of search**, a project is revealed, it grows and it inspires others, while it distributes itself not only for popularity, but also by the fact that it has a life after the design stage, by its growth and changing order of appearance.

CHAPTER 9: DESIGNER OF FRAMES

The question of this thesis is one of adaptation - Adaptation to a new consumer, to new distributive systems, with a specific future in mind. As it leads every step of this story, the web seems to be the apparent entry point for a new design process. From what is basically a web application, products could be distributed to the different interiors the new consumer holds, using the distribution systems the web offers (shown above). The designer, taking a step back, can rethink his design processes and leave the result with an open end, one that calls for interpretation. The meeting point of the consumer and the designer is then the interface, and the options given within it, and new interfaces are emerging – touchscreen applications, joysticks that recognize full body movement, cameras that can interpret physical presence into digital. Designing while considering what could be left open for others calls for a new type of design process, that regards to a great extent the communication of the “design system” (as opposed to the assembly system in modular objects), and not just the end result itself. For example, a designer might design a toolbox of processes and materials he has chosen, directing style and function, but not necessarily program –the latter, in turn, is to be interpreted by the consumer, and used on different levels of freedom and price in the environments shown. This is just one example, and the open-end could regard the choice of materials, graphics, stories, etc. this can open up new doors of creativity and exploration for the designer and the consumer alike.

Here a question of professionalism rises, of where the designer utilizes his unique understanding not only in style, content and context, but also in materials and manufacturing processes. After all, the physical interior, and with it, the physical, functional objects, do not disappear. While the 3d printed future is lurking by, in today’s world, processes of manufacturing still have a significant part in the design process. Here, the web **distribution system of ordering** a physical object (in websites like Amazon, E-bay, etc.) comes in. the consideration of the representation of a product designed by the designer (in collaboration with a consumer) in physicality holds a great weight. While digital programming processes can interpret Probjects, digital objects and the growing catalog, the physical, functional representation of the object remains in professional hands to be cleverly made in terms of cost, quality, detailing, finish, etc.

So the designer designs objects with an open end, to be communicated and interpreted in the digital arena. This, in turn, relies on a physical reflection of

the interface, and the connection the designer makes to the tools that create the object, holding with them the possibilities of change. The understanding of what is physically possible and what isn't, and the invention and exploration of finding new possibilities (a process of exploration that has already been going on in relation to craft), of what makes a coherent story, context, or product - is crucial for this new designer. He retains a link, much more fluent, and in many ways one that requires even more expertise, between industry, craft, communication tools and the consumer.

To conclude - the designer of the new consumer creates limited platforms that retain a signature, a style, a concept or a story, but leaving an open end. A design of each of these applications becomes the object in itself (similar to the growing market for smart phone applications). The designer and the consumer are in conversation.



EPILOG

Recently, the number of Facebook members reached 450 million, one quarter of the people with Internet access, and has become the most popular website in the world, passing even Google. It had an estimated value of more than ten billion dollars. The social and the capitalist are not opposing ideas, even though we were once trained to think so, nor do they have to necessarily come from an ideological standpoint, but rather, more often than not, from "the people". They can co-exist, and it seems the virtual world supplies a platform for this to happen.

As designers, we cannot ignore the world around us, nor where it is heading. Our social structure is changing, effected by new technologies and new tools offered to us. We share, we discuss, we make and consume. We have excess to more knowledge than ever before, and more tools of manufacturing are coming, de-centralizing physical ownership. As designers, I believe we must adapt to the new consumer described in this thesis, and the consumer (if this word is even still applicable) that is still to come. We might draw inspiration from the future described, looking at the tools, aesthetic considerations and agendas that it focuses on, rather than shape. But above all I offer we must consider asking ourselves the questions portrayed when approaching a new project: who is the middleman we are challenging, how do we involve the consumer in the process, and how does our project relate to the communities around this consumer.

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