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New medium of advertising in the future use of interactive installation

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New medium of advertising in the future

Use of interactive installation

Graduate Industrial Design Master of Fine Arts Program
School of Design
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Rochester Institute of Technology

A Thesis submitted to the Faculty
of the College of Imaging Arts and Sciences
in candidacy for the degree of Master of Fine Arts

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Use of interactive installation

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Introduction

In some well-developed countries, there is a contemporary trend of using interactive installations to serve commercial purposes: designers enhance the impression of public institutions and commercial groups like entertainment centers, brand of products, by using interactive installations as medium of advertisement. For example, Adobe's advertising interactive installation in Union Square (New York City) is very successful in building up the impression of CS3 to people.

According to Nicolas "Interactive installation is a ramification of installation art." What installation art emphasizes is the involvement of the audience, taking into account the viewer's entire sensory experience, rather than floating framed points of focus on a "neutral" wall or displaying isolated objects (literally) on a pedestal like a painting. Interactive installation will involve the audience acting on it or the piece responding to the user's activity. In a word, Interactive installation is very good at communicating with the audience because it is bringing experience to the audience but not just "eye catching" nor "eye candy" for the audience.

Thus interactive installation is good at communicating as an advertising medium because in the age of information overload, the traditional advertising

medium is far from communicating with consumers efficiently, “eye catching” is no longer enough, advertising calls for effective experience communicating. Bringing experience to consumers, involving them in the process of delivering information will be effective ways of communicating and a preferred way of getting information by today’s information consumers.

This project will study the use of interactive installation as an advertising medium, farther more, and how we can use interactive installation to communicate with consumers better than traditional advertising medium to build a relationship between consumer and product ..

Problem statement

Advertising has been defined as "paid nonpersonal communication from an identified sponsor using mass media to persuade or influence an audience" (Wells, Burnett, and Moriarity 13) as well as "a form of controlled communication that attempts to persuade consumers, through use of a variety of strategies and appeals, to buy or use a particular product or service" (Defleur and Dennis 564). Currently, the central goal of advertising is still the same – to persuade consumers to purchase a product or service –but the environment of advertising is changing as a result of the trend of advertising medium is changing.

During the latter part of the 20th century many new channels of mass communication were developed. The public now is exposed to an ever increasing number of mediated messages. People face hundreds of advertisements daily, delivered via many kinds of channels such as television, magazines, newspapers, billboards, direct mail solicitation, e-mail spam, etc. In order to catch people's attention, advertisers are trying to do a good job by making advertisements more colorful, more vibrant, bigger, faster-paced, louder, and, in some case, more annoying to the viewer. As pointed out by Elliot and Speck , While the "aggressive, more is better" approach may succeed in the short term, it is likely to fail in the long term as consumers habituate to the new style and learn to ignore even the most aggressive messages. In

another words, the advertising (or the way we are advertising) today lacks the ability of catching people's attention.

One other fact is that people do not trust advertised information as much as before. From a survey done by North American Technographics® in 2008, We see that people do doubt information from advertisement or sources with advertising purposes (company blogs, online classifieds, direct mail, Etc.). Because to most people's understanding, the advertiser speaks for the business holder, the company, and the brand. They choose what to expose and what to cover.

In my thesis, I will try to find out the solution which addresses the problems of the traditional advertising medium. As a new experience of advertising, interactive advertising is good at attracting people's attention and has the ability to build two-way communication by which new relationships between consumers and products can form.

Today's Advertising and Advertising Medium

Information Chaos

Let us begin with what we have in advertising today.

The central goal of advertising is still the same, as Matthew Lombard and Jennifer Snyder described, “to persuade consumers to purchase a product or service” but “Many new channels of mass communication were developed during the latter part of the 20th century, exposing the public to an ever increasing number of mediated messages.” Every day we face tons of advertising information which we can not avoid. This information comes from different channels: television, magazines, newspapers, billboards, direct mail solicitation, e-mail spam, World Wide Web banners and pop-up boxes, and more. As a result of exposure to these messages, some argue that consumers have developed a more sophisticated understanding of the mass media and of advertising. All of this creates a greater challenge for advertisers, and all media producers, to attract attention, especially thoughtful attention, to their messages.

In responding to this challenge, advertising has become more colorful, more vibrant, bigger, faster-paced, louder, and more obnoxious. While the

“aggressive, more is better” approach may succeed in the short run, it is likely to fail in the long term as consumers habituate to the new style and learn to ignore even the most aggressive messages. In fact it is the “quiet” ad which stands out from the others because it is so rare. What I call “quiet” ads are the ads which are trying to limit the information being communicated. Some advertisers find that in an environment full of “aggressive” information, ads with less information communicate better. Because the public is tired of information overload, they choose to ignore the ad information unconsciously, advertisers need to make ads more attractive, and limiting the information being communicated is one way to achieve it. In conclusion, advertisers have to choose, limit the information we communicate via the traditional advertising medium.

What makes advertising such an information chaos? The answer is we are using the one-way communication advertising medium. Television, magazines, newspapers, billboards, direct mail solicitation, e-mail spam, etc., these channels are serving in one-way communication. In this kind of advertising style, advertisers can not choose the audience so they have to distribute more than they really need, meanwhile the audience can not choose what ads show up in front of them so they learn to ignore the information they don't need. But the fact is that the audience usually fails to learn because there is just too

much information, eventually the audience prefers to ignore most even all of the information in ads.

In the end of the 20th century, a new trend which is trying to change one-way communication advertising style appeared. As Lombard and Snyder pointed out,

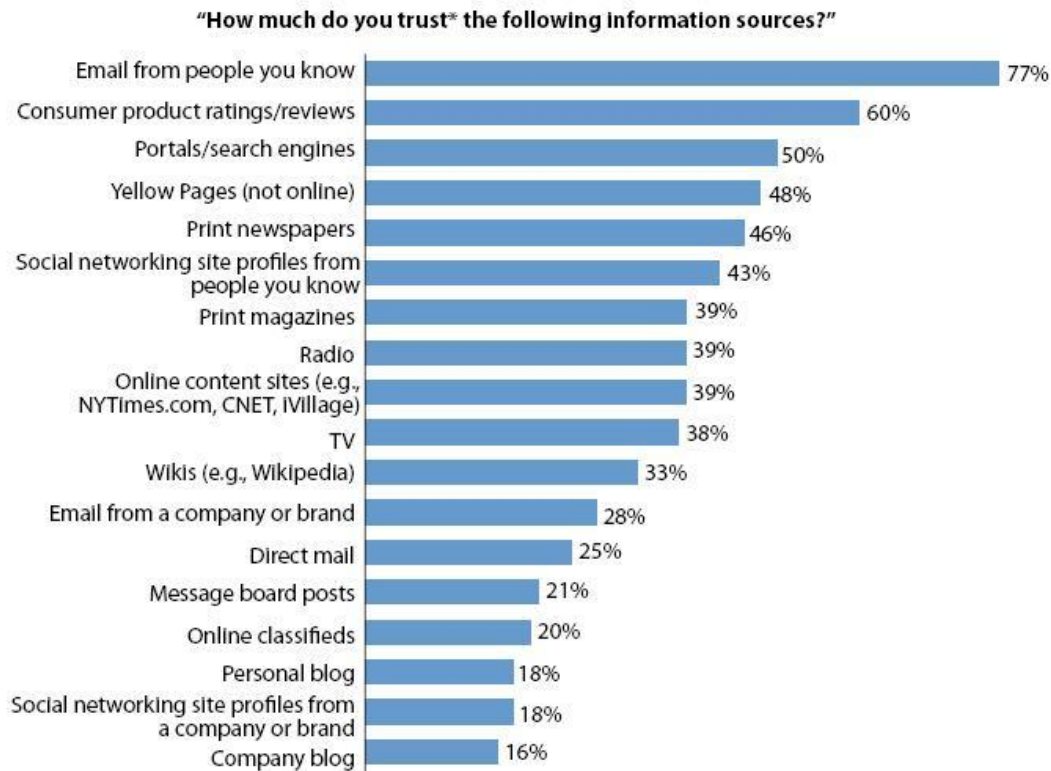
A more promising approach takes advantage of new technological possibilities to provide a new kind of advertising experience, a customized and personalized one. This goes beyond designing the content of messages to target specific demographic and psychographic groups. The notions of personalization and control, mentioned in the definitions of advertising above, are central to this new trend. The Internet and other interactive technologies make it possible to create ads that are not only more targeted, but more personal, in which advertising is an experience in which the consumer participates and is engaged. Thus, the model of advertising as communication that is nonpersonal and controlled exclusively by the sponsor seems to be evolving into one in which advertising is personal and interactive.

Interactive advertising gives consumers more control by giving them a range of choices in their experience with product information. And it produces a sense that the communication is more personal than traditional media ads because

it creates or simulates a one-on-one interaction. Johnson characterizes the future of consumer marketing this way: "Consumers, in receiving marketing messages or doing e-business, will expect to be treated as individuals, with their preferences catered to. Why would consumers or advertisers put up with the 'spam' of a network TV commercial or magazine ad when they can interact one-on-one?"

Interaction technology of internet is really doing a good job at guiding people to the needed information . But we do need to remember that call to action is the main mission of advertisements. This project, I will try to explore the use of interaction technology in the advertising field. Beside providing the right information to the right audience, I believe using interactive installation as advertising medium can also catch more attention from the audience (make advertisements stand out from information chaos), farther more, change the one-way communication advertising and build a new relationship between consumers and product.

Transparency and Persuasiveness in Advertisement



Base: US online adults who use each type of content

*Trust is defined as a 4 or 5 on a scale from 1 [don't trust at all] to 5 [trust completely].

Source: North American Technographics® Media And Marketing Online Survey, Q2 2008

47575

Source: Forrester Research, Inc.

Figure1: Consumers trust company blogs less than any other channel. Josh Bernoff.

"People Don't Trust Company Blogs. What You Should Do About It". SocialMediaBIZ.

N.p. 9 Dec. 2008 Web. 21 Jan. 2009.

About this survey, Josh Bernoff from Forrester Research said:

"Consumers trust company blogs less than any other channel. This result comes from a survey we did in Q2 of 2008. Have a look at the data yourself. Not only do blogs rank below newspapers and portals, they rank

below wikis, direct mail, company email, and message board posts. Only 16% of online consumers who read corporate blogs say they trust them. If you're a corporate blogger or somebody who advises companies, you need to take this into account..."

In my opinion, this phenomenon is also related to the traditional one-way communicating advertising. The audience passively receives the information through an advertisement; most of the audience know the information and the

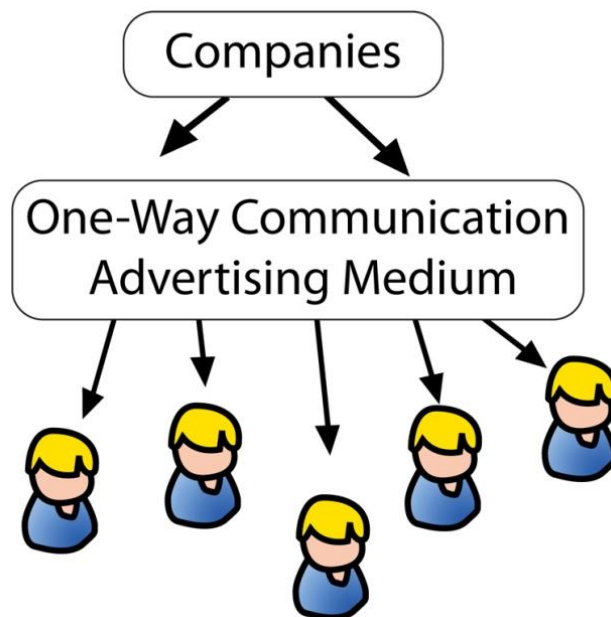


Figure2: One-Way Communication between companies and consumers. By author.

form of distributing information has been designed. Companies have chosen what information to explore and what to cover. This method of advertising is to reach the goal of building up good brand image and sell more products. But the fact is that the audience knows, according to their own understanding,

advertising speaks for the business holder, the company, and the brand, so the audience won't completely trust what has been claimed in the advertisement.

How to make people believe?

The answer is to make the audience feel the transparency of the information.

Let people know the truth, make the information transparent, let consumers feel that they know more about the products than before, then they will believe.

But what is transparency when advertisers are advertising and telling the brand story? In the past, consumers cared about the quality of the products. Presently, more and more consumers care about social responsibility, and how the companies' actions impact the world. This is an undeniable fact in the world of branding, especially for luxury brands.

WWF pointed this out in DeeperLuxuryReport (2008):

“The New Luxury Consumer: Many luxury consumers are part of an affluent, global elite that is increasingly well educated and concerned about social and environmental issues.”

“... Luxury is about being and having the very best. Products that cause misery or environmental damage, now or in the future, are no longer considered by affluent consumers to be best in class...”

“...Brands tell consumers what to care about all the time, both directly and by implication or demonstration. Examples include: models selected for their body shape; fashion and personal care tips in the media; and

advertising...”

“... Value can be provided via benefits to the people, communities and environment affected by production, marketing and distribution. These benefits help to build the intangible value of the brand. This implies and requires a high level of collaboration between marketing, design and other business functions...”

From the report, we know that in the future or in the present, advertisers and companies have to take social responsibilities into account, not just when we are advertising for luxury goods.

In conclusion, today’s consumers care about social responsibilities and care if the companies’ business models are clean and healthy to the world. My hypothesis is if we have a new way to advertise, succeed in building up the transparency between the healthy business models and consumers, we can have a very good result in promoting the companies which have healthy business models and also make the healthy business model become an example to other industries.

Conclusion: What do we expect from New Advertising Medium?

Beside blindly sending out information in an information overload environment, we are looking for a new information media that can provide more interactivities, which gives consumers more control by giving them a range of choices in their experience with product information, and that produces a sense that the communication is more personal than traditional media ads.

We also need new ways or new forms to advertise in order to create more engagement with the audience. Giving out a new experience of the brand story is a way to stand out in the information chaos. We need a more attractive way to advertise.

If we take one step further in the use of interaction technologies, we can also build up stronger relationships between consumers and products. Because the interactive technologies make it possible for us to use or recreate the relationships between time, environment, information and people, we can potentially communicate the transparency of products or companies' business models for those which want to be transparent to the public.

Study of Interactive Installation

Understanding Interactive Installation

As mentioned before, Interactive installation is a branch off the installation arts category. So if we want to study interactive installation, we need to start from the definition of installation art.

Installation as nomenclature for a specific form of art came into use fairly recently; its first use as documented by the OED was in 1969. It was coined in this context in reference to a form of art that had arguably existed since prehistory but was not regarded as a discrete category until the mid-twentieth century (Wikipedia). Allan Kaprow used the term “Environment” (6) in 1958 to describe his transformed indoor spaces; this later joined such terms as “project art” and “temporary art.”

Essentially, installation/environmental art takes into account the viewer’s entire sensory experience, rather than floating framed points of focus on a “neutral” wall or displaying isolated objects (literally) on a pedestal. This leaves space and time as its only dimensional constants. This implies dissolution of the line between art and life; Kaprow noted that “if we bypass ‘art’ and take

nature itself as a model or point of departure, we may be able to devise a different kind of art... out of the sensory stuff of ordinary life" (Kaprow 12).

Interactive installations were mostly seen in the 1990s (De Oliveira 35), when artists were more interested in the participation of the audiences where the meaning of the installation is generated. Usually, an interactive installation will often involve the audience acting on it or the piece responding to the user's activity. There are several kinds of interactive installations produced, these include web-based installations, gallery based installations, digital based installations, electronic based installations, etc.

More than traditional advertising medium's one-way communication, interactive installation is trying to involve the audience to be a part of communication and is responding to the audience's activities. It's calling the audience's attention by audiences themselves, not just telling stories no matter whether the audience wants to listen or not. Interactive installation has more abilities in catching the audience's attention than traditional advertising medium. This is why interactive installation is a very good and new advertising medium.

What's more, the interactivities which were provided by interactive installation make possibilities for new effective personalized advertising experiences. For example, internet-based interactive advertisement. Interactive advertising gives consumers more control by giving them a range of choices in their experience with product information. And it produces a sense that the communication is more personal than traditional media ads because it creates or simulates a one-on-one interaction (Lombard and Snyder).

Essential Elements in Interactive Installation

To understand interaction in interactive installation, we can not miss the most-represented “Tangible Bits” concept by Hiroshi Ishii. He pointed out that interaction requires two key components. One is the controls, through which people can manipulate access to digital information and computations. Also, it’s very important to have external representations that people can perceive, to understand the results of the computations. Hiroshi Ishii extended the concept of GUI (graphical user interface) and generated the concept of TUI (tangible user interface).

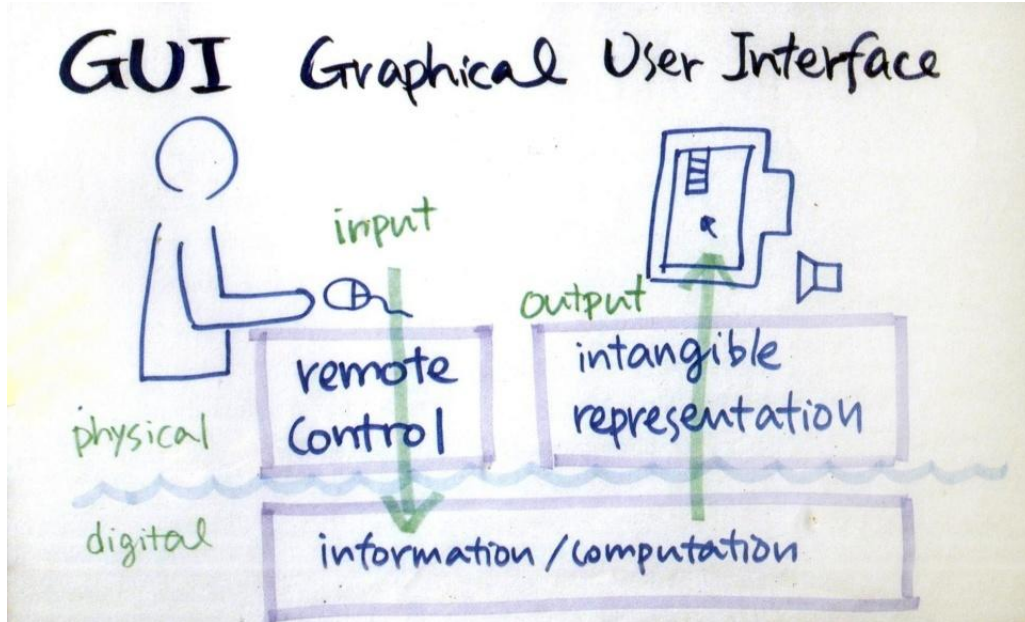


Figure3: GUI-graphical user interface. Hiroshi, Ishii. Interview by Donald, A. Norman. *Emotional Design*. New York: Basic Books, 2004. Print. P526.

The graphical user interface provides a variety of components, like windows, menus, or icons, but it represents these components as intangible pixels. The basic medium of the representation is pixels on the computer screen: that is intangible.

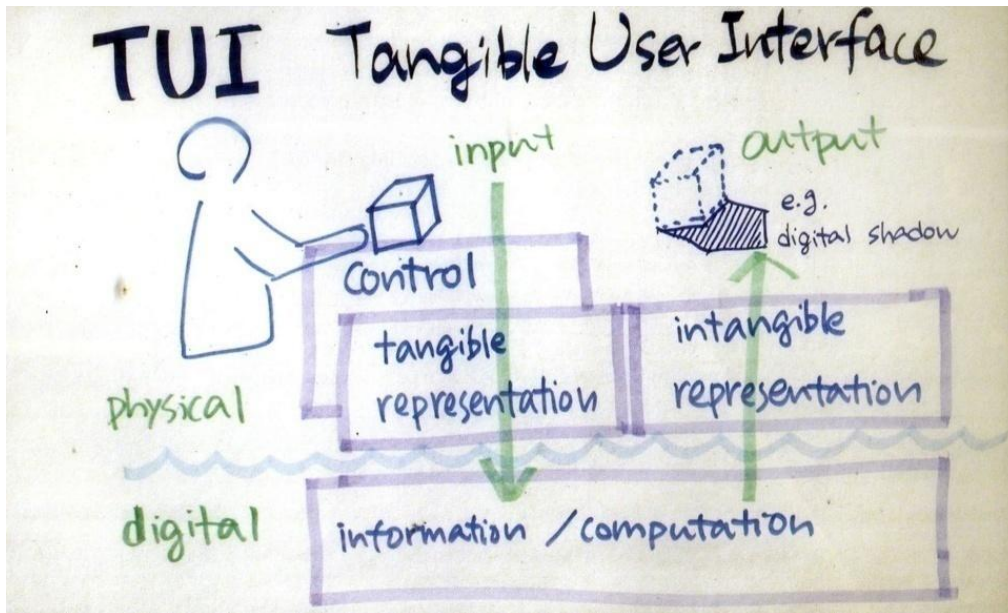


Figure4: TUI-tangible user interface. Hiroshi, Ishii. Interview by Donald, A. Norman. *Emotional Design*. New York: Basic Books, 2004. Print. P526.

The key idea of this diagram is giving a physical form, a tangible representation, to information and computation; this differentiates our approach from the graphical user interface. The tangible representation is tightly coupled with the computation inside the computer, but the representation is physical, so that it also serves as a control mechanism, allowing people to directly grab and manipulate. By doing so, they can control the internal computation or digital information. Thus the coupling of tangible representation and control is one of the key features of the tangible user interface.

What else do we need to consider in interactive installation in the context of advertising? The relationship between people and interactive installation has already been described in the concept of TUI, but when we are using interactive installation as advertising medium, in my opinion, we still want to care about the product information, time and the environment in which we advertise.

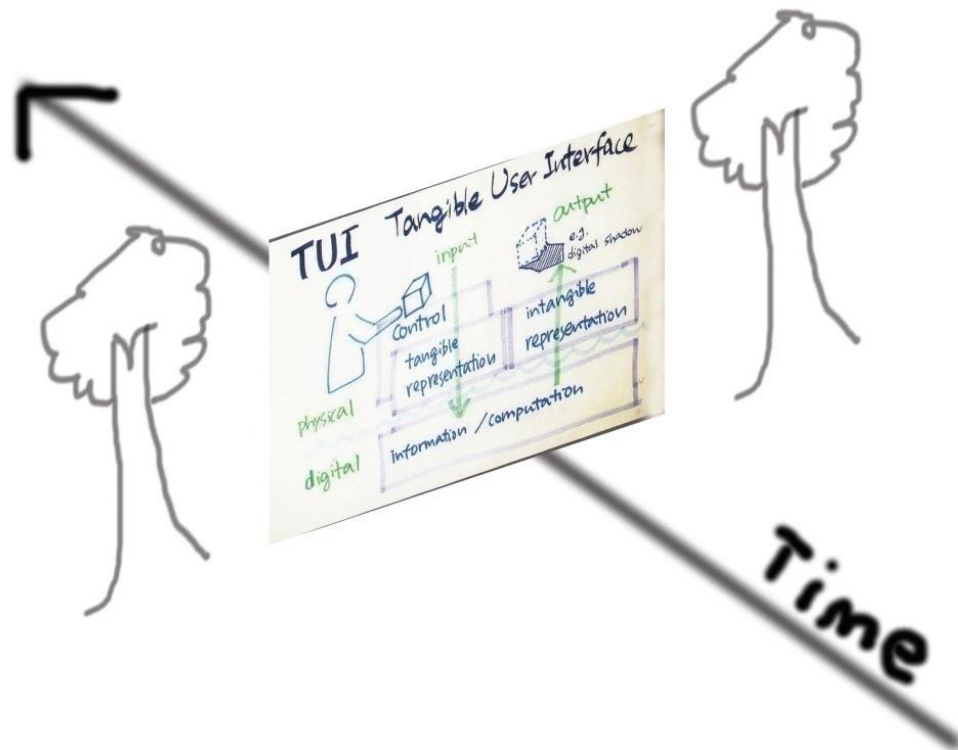


Figure5: Extension of the concept of TUI in the context of advertising. By author.

What Makes Interactive Installation a Good Advertising Medium

From the figure 5, we know that we can have a new opened form to advertise by using interactive installation as advertising medium. The form of advertising is opened because the interactivities and the information technologies are all available in interactive installations. Breaking the form of one-way communication and the attributes of relating people, information and environment, advertising can have many possibilities on this new carrier.

This hypothesis (interactive installation can be a good advertising medium) is based on two main points:

First, involving the audience, or say, responding to people's activities can attract more attention than one-way communication, it can make the stories in the advertisement be more easily accepted by consumers. I will also discuss how to make things attractive later in this chapter.

Second, Interactivities of interactive installation give consumers more control by giving them a range of choices in their experience with product information. And it produces a sense that the communication is more personal than traditional media ads. If we take one step further in the use of interaction technology, we can also build stronger relationships between consumers and products. Because the interaction technologies make it possible for us to use or recreate the relationships between time, environment, information and

people, we can potentially communicate the transparency of products or companies' business models for those which want to be transparent to the public.

What make things attractive

We know that if we want to use interactive installation to advertise, one very important goal we need to achieve is that we have to make the way of telling stories interesting and attractive. Here are some examples of interesting uses of interactive installation.

People are born to be attractive.

As the basic and essential single element in this society, every single person was born with incredible appeal to others. We get different emotions from interacting with other people, sometimes it's hard, sometime it's pleasing, sometimes the feeling is strong and sometimes it's subtle. We can get feelings from other people easily by interacting with each other.



Figure6: Naked Cowboy in Time Square, New York. Nakedcowboy.com. Naked Cowboy. n.d. Web. 6 Feb. 2009.

Robert John Burck (born December 23, 1970 in Cincinnati, Ohio), better known as the Naked Cowboy, is an American busker whose patch is on New York City's Times Square. He wears only cowboy boots, a hat, and briefs, with a guitar strategically placed to give the illusion of nudity.

(Nakedcowboy.com)

Why has the Naked Cowboy been so famous for quite a while? What would you think if Naked Cowboy isn't a tough real guy but a sculpture or a robot put on the street? Naked Cowboy became famous because people are so interested about him, he's a real and half naked person standing there on the street. It's not an example of interactive installation, but I think it's a good example to say people like people, real interaction and real communication are always attractive.



*Figure7: The Telectroscope. Home page. The telectroscope. Paul St George. n.d.
Web. 6 Feb. 2009.*

The Telectroscope lets Londoners and New Yorkers see each other in real-time.

NEW YORK, a 37-by-11-foot brass-and-wood telescope will be erected on Fulton Ferry Landing in Brooklyn. An identical scope will sit on the bank of the Thames near the Tower Bridge in London, giving viewers in both cities the opportunity to see each other in real-time.

The Telectroscope, as the project is called, is the work of London-based artist Paul St. George. It functions by being linked into existing fiber-optic networks, though St. George has created a fake history for it. The Telectroscope was supposedly invented by the artist's mythical great-grandfather, Alexander

Stanhope St. George, who designed a device that would connect people on opposite sides of the world

Maybe you can see a chap unbuttoning his shirt for an interesting party, or a police car pursuing a black Mustang, but they are happening on the other side of the earth. Here we have this good example of using interaction technologies to recreate the relationships of environment, people and information. The most interesting fact is the information. The content of information here is people, real interaction with people on the other side of the world. People are satisfied by peering at other people who are on the other side of the world, because they believe what they see is real. On the other hand, people are satisfied because meanwhile they are being watched. This form of communication is very close to face-to-face two-way communication. This is much more satisfying than one-way communication.

Make Information a Pleasure

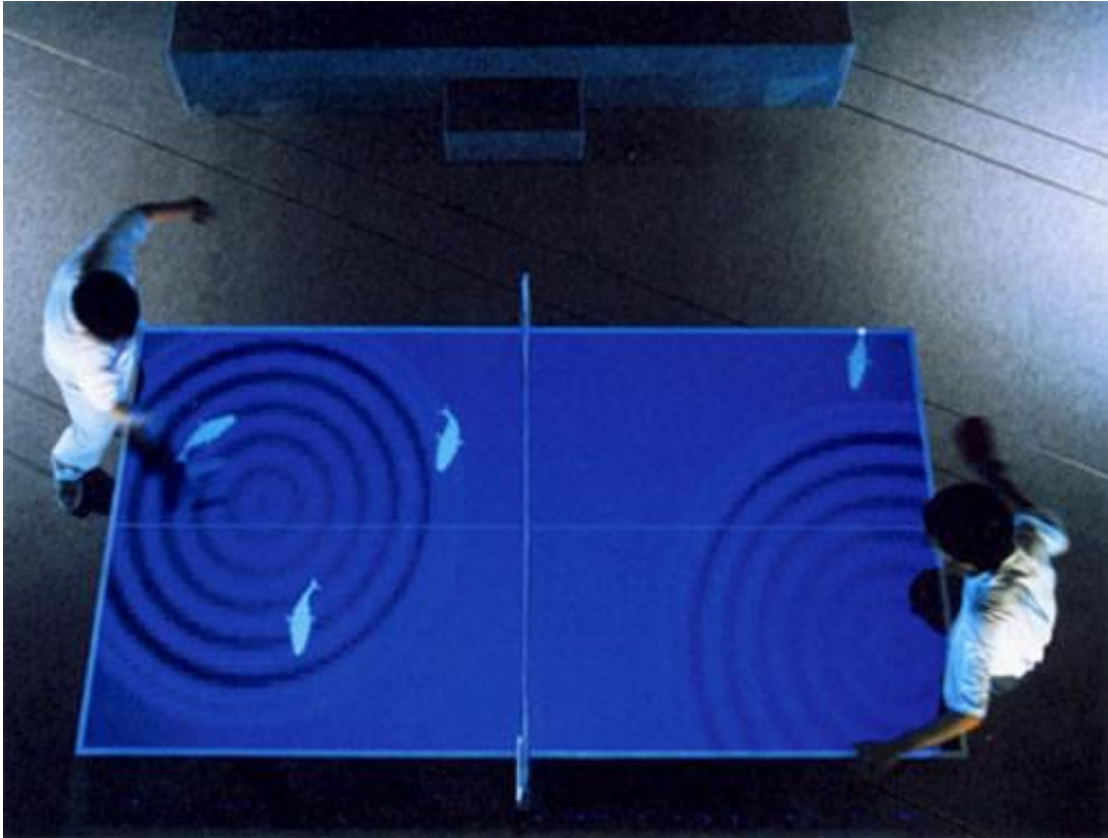


Figure8: Table tennis on top of a school of fish. Hiroshi, Ishii. Interview by Donald, A. Norman. Emotional Design. New York: Basic Books, 2004. Print. Page.530

“Ping Pong Plus.” Images of water and a school of fish are projected onto the surface of the ping pong table. Each time the ball hits the table, the computer senses its position, causing the images of ripples to spread out from the ball and the fish to scatter. (Ishii)

It’s a simple but very good example of making information a pleasure. Ripples on the table telling the player where the ping pong ball hits, then the fish react to them. For playing ping pong, maybe we don’t really need this, but we do

enjoy a new experience which is interesting and attractive. In the words of Donald, “....Is this a good way to play table tennis? No, but that’s not what it’s about: it’s about fun, delight, the pleasure of the experience....Why not? Why not have information displayed in a pleasant, comfortable way?”(101)

A Game for Generating Ideas

As a way to study interactive installation, I created a game which hopefully can help generating ideas about creating interactive installations.

Game Rules

According to the Previous study, when we were designing interaction of interactive installations, we needed to consider these basic elements: People, Environment, Installation, Time and the connections between each of them – Information.

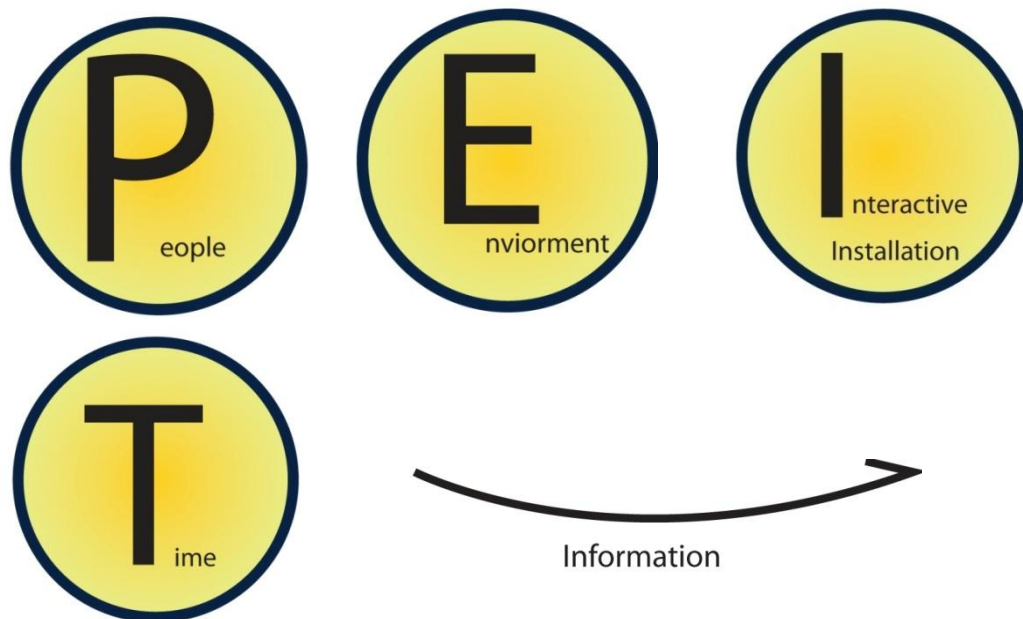


Figure9: Elements in author's game theory.

I tried to use these icons to describe some existing interactive installation art and found I can use them to 'draw' a conceptual map for every interactive installation.

Then, I supposed if I reversed this thinking process, what can I do with these chess-like icons? For example, in case I am doing a design job for some certain environment, the first element on the map should be 'E'. Then what I need to do is to try to use other elements to 'draw' the other part of the map reasonably and with creativity. After I have the 'map', the idea which I was waiting for, will become clear just like it come up.

That's my theory of the game.

In the following section, I will show how I use these 'games' to analyze some existing interactive installations. And I will also try to play this game for generating some ideas to use interactive installation for advertising.

Example 1



Figure10: Interactive Installation Detects Light to Open/Close. Designed by Berlin interactive artists Gunnar Green and Frederic Eyl.

<http://scophy.com/2008/01/15/art-tuesdays-interactive-installation-detects-light-to-open-close/> (Accessed August 19, 2009)

This is an installation which has simple interaction with people walking by.

About every half second, the LEDs on the wall will be brighter to trace out the shape of the nearest person.

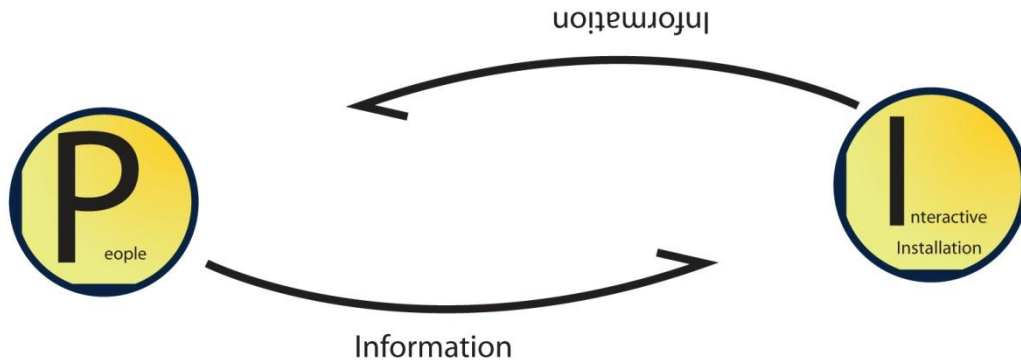


Figure11: Analyzing map for “Interactive Installation Detects Light to Open/Close.” By author.

The map demonstrates how I understand this interaction: interactive installation captures information from the person walking by, “information” here means the shapes of the pedestrian in each half second, and then uses an LED image to give back information to the person and other people who may see this.

Example 2

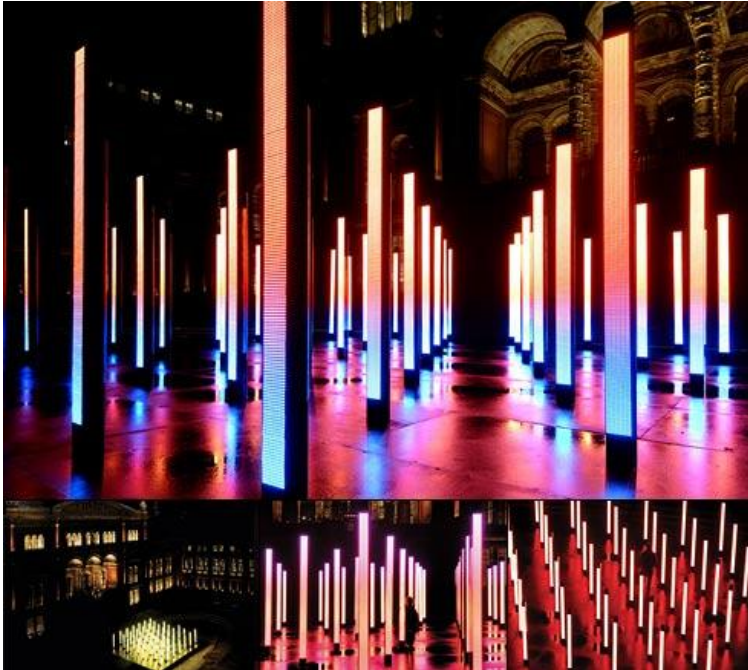


Figure12: An interactive installation called Volume. by United Visual Artists and onepointsix.

<http://www.cpluv.com/www/it/m/Christophe/6592> (Accessed August 19 ,2009)

The V&A Museum in London has a display of an interactive installation, which is called Volume, in the John Madejski Garden. Volume is a sculpture of light and sound, an array of light columns positioned in the centre of the garden. The installation responds differently to human movement at different times of day, creating a series of audio-visual experiences.

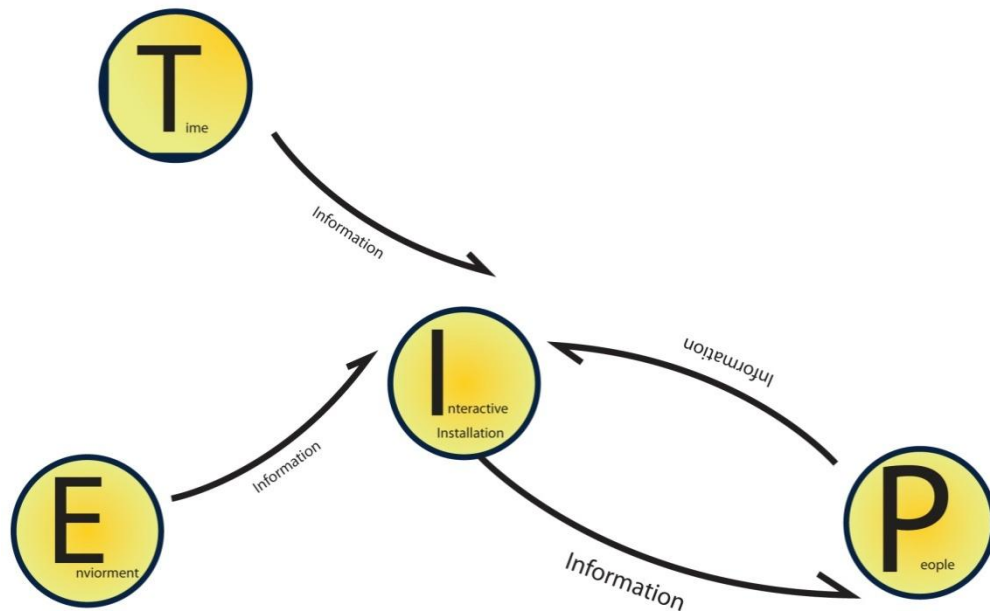


Figure13: Analyzing map for "Volume." By author.

The environment provides sound as information to the installation, Volume (the name of this installation). Meanwhile Volume catches movements of people who's moving inside, then generates different lighting effects according to different time. Eventually, people inside can enjoy this amazing experience (information from installation to people).

Example 3



Figure14: Adobe interactive installation for the launch of its Creative Suite 3, New York City.
<http://www.flickr.com/photos/fbmore/800332140/> (Accessed August 19 ,2009)

This is an interactive advertisement created by Adobe and was installed in the entrance of a subway station in New York. The installation contains infrared sensors that lock on to pedestrians as they walk past the wall. The person closest to the wall is able to control a CS3 rich media advertisement via a projected slider button at the bottom of the wall.

As the selected pedestrian continues walking and moves the slider along, the wall will start displaying colorful animation and playing music, effects that will grow or recede at the pace that the person advances or retreats. When each

selected pedestrian reaches the end of the wall, his or her design will be in full blossom, above the campaign's message: "Creative license: take as much as you want."

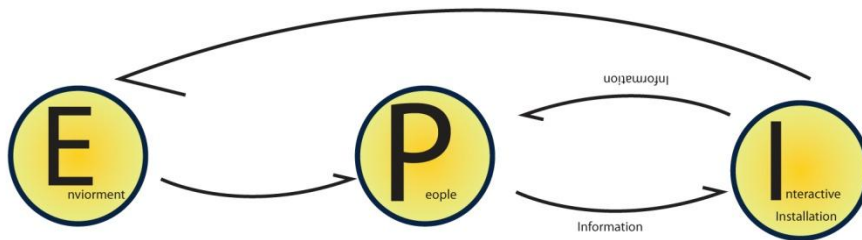


Figure15: Analyzing map for Adobe's interactive installation. By author.

Containing a lot of pedestrians is an attribute of this environment. When people pass by this installation and the installation reacts back to the selected pedestrian, not only do the people around get the message but also there is a beautification to the environment.

Use this Game as a Creating Tool

As mentioned before, this game is not just for analyzing an idea but also for creating a new idea. Here I will try to use this creating tool. First step, create the map; second, see what I can get from the map. But for the purpose of serving this thesis's topic, I will guide the following ideas being used in advertising.

Game1

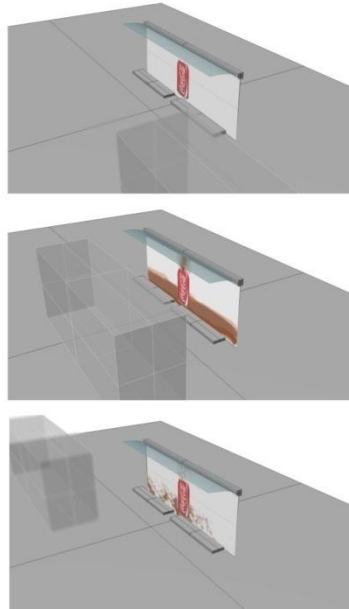
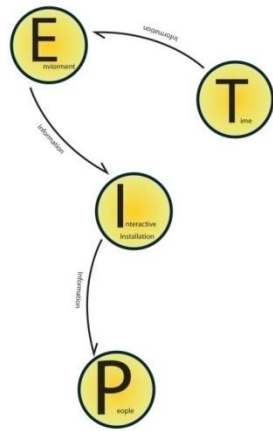


Figure16: 1st idea generated by this game theory.

I 'drew' this map randomly. The map tells me to find an environment which will change somehow according to the time. The installation interacts with these changes of environment, people are the observers of these interactions.

I came up with this idea of an interactive billboard in the bus stop. Before the bus comes, there is a still can of Coca Cola®. When the bus stops at the bus stop, the coke spouts out and start filling up the whole screen slowly. When the bus leaves, the coke on the screen will disappear in the same direction with the leaving bus like it is being sucked out.

Game2

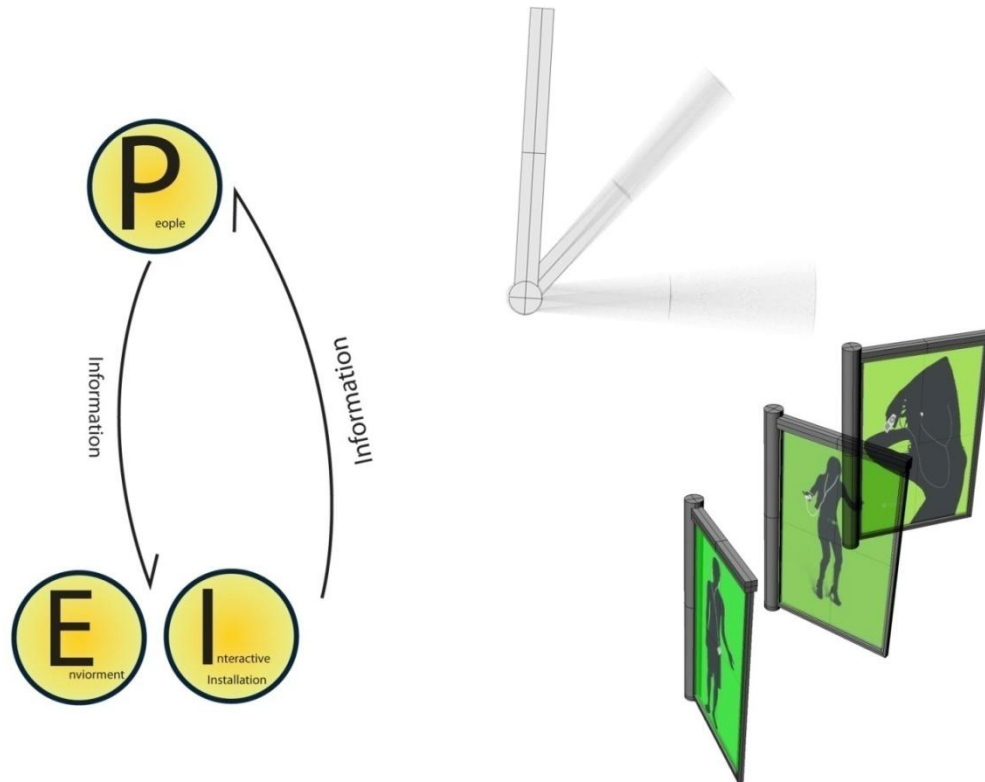


Figure17: 2nd idea generated by this game theory.

This time I associate environment with the installation on the map. My purpose is to use the environment to force people to interact with the installation.

Under the guide of the map, I think of a door-like installation which might be set up in the entrance of a mall. As people push the door and tried to go through, the information of mall related products or advertisements will show up along with the changing angle of the door.

Going Further: Exploring How to make the Better Ad

Even I can use this game as a tool for creating ideas about interactive installation, but it's still far from proving that interactive installation can be a better advertising medium.

As mentioned in the section "What Makes Interactive Installation a Good Advertising Medium", we know that if we want to have innovation in advertising, we need to achieve some points. First, make information a pleasure, use interaction to make the way we advertise more attractive. Second, rebuild the relationship between consumers and products, provide the right information to the right person. Further more, communicate the transparency of products or companies' business models for those which want to be transparent to the public, in order to let consumers know what is good and what to believe.

So, in this section I will try to use some ideas to prove that interactive installation is able to serve these goals and have the potential to be a better advertising medium.

Idea: Outdoor Dressing Room

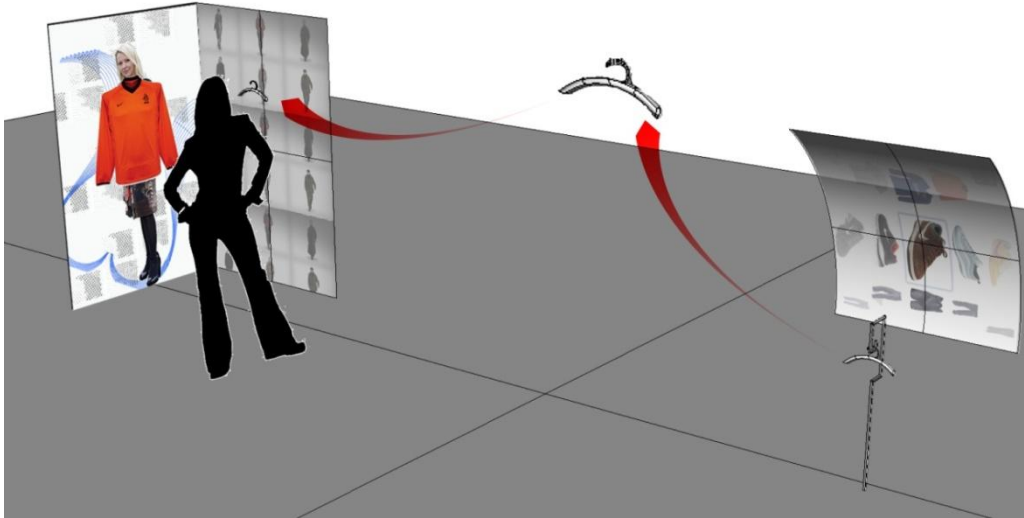


Figure18: 3rd idea generated by this game theory.

As in the name, this is an installation letting people 'try' the new released fashion products outside the store. The user just needs to select what they want to try on, and bring the hanger to the presenting part of the installation, the computer will capture their image and compose it with the image of the selected product.

I wanted to use this example to prove that by using interactive technologies we can achieve at least two goals: First, interactive advertising gives consumers more control by giving them a range of choices in their experience with product information; Second, interactive technologies potentially can make

choosing and showing information in a more pleasant way, besides digital, we can make information tangible.

But this idea is still very weak. The interaction here is very simple, besides a tangible way to choose digital information, it is nothing more than digital screen images. The most important fact is, the communication here is one-way, there is no interaction between consumer and product, the relationship between consumer and product hasn't been rebuild. People might be impressed the first time playing with it, but they won't change their opinion about the brand or the product.

Idea: Everyone can be the Super Model

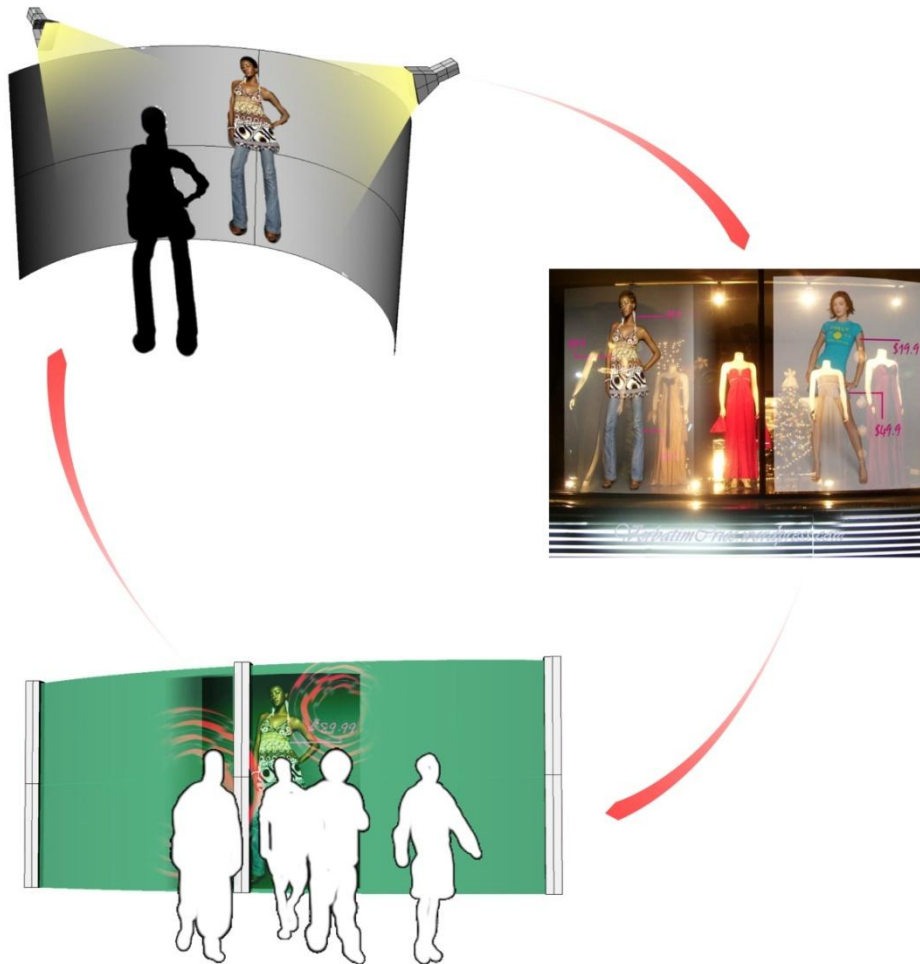


Figure19: 4th idea generated by this game theory.

This installation has two separate parts. One part will be set up somewhere inside the boutique as a little stage. After consumer try on the new clothes from the store, they can choose to step up and pose like a fashion model on it. Then the stage will collect the product information from the sensors on the

clothes and the image of the “model”. The other part of this installation is the shop window, it shows the images of the models and the information of products which he/she is wearing. And the shop window will also detect how many pedestrians stop by as grading for the “model”.

People have the desire to show themselves, especially for those who have just bought some new clothes or are thinking about it. Everyone can be the super model if they want to. It’s attractive to the pedestrians too, because we know that somehow we are tired of elaborately selected models and perfectly designed posters advertisements. As I discussed in the chapter before, people are attractive. What people see here, how the clothes look on a real person, is persuasive. At the same time, information about the products, price for example, will be brought up, it is an important point to bring people into the store.

Idea: A Transparency Door



Figure 20: 5th idea generated by this game theory.

As a development of the idea of the rotating door (the second idea generated from the game), I tried to build up the transparency between product and consumer in this design.

Images were projected on the glass of the rotating door in the entrance. The images were real-time captured by web-cams located in factories which are producing the products in this store. Along with people pushing the door and going through, images of different factories will show up as the changing angle. Some people like this idea because they think it is amazing seeing how the product in hand was made. But some do not agree with that because: 1)

maybe most consumers are not interested in how the factories look; 2, maybe the virtual client – GUCCI does not really want to expose the real product line.

I realized that if I want to build up transparency between product and consumer, I do need to choose one healthy business model carefully. Building up a new and believable relationship between companies and the public is a great thing, and I believe interactive advertising medium is able to do so. But it is based on the fact that I am advertising a healthy business model and the companies being comfortable with exposing it to the public.

So, in the coming chapter, I will choose one virtual client carefully and design interactive installation for it, in order to prove using interactive installation can build up transparency of the product and change the relationship between consumer and product.

Virtual Project – DeBeers' Diamond

Purpose of this virtual project

After research about some brands and companies, I decided to choose DeBeers to be the virtual client of this project. The reason for me to make this decision is that I found DeBeers is running its career in a healthy business model but the public is still in having misunderstanding about DeBeers.

In this virtual project, I am going to show an example of using interactive installation to communicate the brand story to the public. As mentioned before, the Interactive advertising medium can bring a new advertising experience to the existing one-way communication environment. Examples about some of the benefits are all around us, (e.g. internet advertisements and companies' websites) and we do not even need actual installations to achieve this goal: We can provide the right information to the right audience as needed because our medium is communicative. In order to show new uses of interactive installation in advertising, this virtual installation will focus on addressing these two benefits:

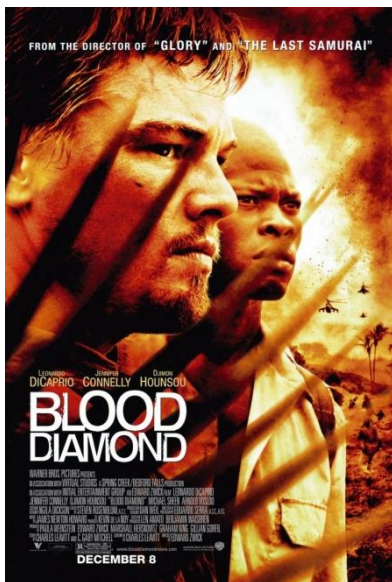
- Interactivities can build up a stronger relationship between the consumer and product.

- We can potentially build up the transparency of products or companies' business models for the companies that want to be transparent to the public. Because of this new relationship and transparency, we can create more confidence among consumers for the brand and business ethics.

The problem DeBeers is facing: Blood Diamond

“Blood diamonds” or “conflict diamonds,” which the U.N. Security Council defined in 2001 as “diamonds that originate from areas controlled by forces or factions opposed to legitimate and internationally recognized governments or in contravention of the decisions of the Security Council.”(diamondfacts.org)

According to a report from *BusinessWeek*, removing the taint of “blood diamonds” or “conflict diamonds” was perhaps the greatest challenge facing the diamond industry and DeBeers. While the company was now focused on driving demand rather than managing supply, there was the realization that questions or suspicions about the diamonds’ origins would have an impact on demand.



*Figure21: Poster of movie Blood Diamond.
Dir.Edward Zwick. Perf. Leonardo DiCaprio,
Jennifer Connelly and Djimon Hounsou.2006.*

A movie titled “Blood Diamond” was released in 2006. Set during the Sierra Leone Civil War in 1999, the film shows a country torn apart by the struggle

between government soldiers and rebel forces. The film portrays many of the atrocities of that war, including the rebels' amputation of people's hands to discourage them from voting in upcoming elections. The movie also shows the audience how illegal diamond mining has impact on the wars.

As pointed out by WWF (World Wide Fund for nature) in Deeper Luxury Report, many luxury consumers are part of a affluent, global elite that is increasingly well educated and concerned about social and environmental issues, so it's not hard to understand that the taint of "blood diamond" has a very bad impact on its market. But what are the facts about DeBeers' business model? Is it the same as how people perceive about it?

Research about DeBeers' business model

The response, spearheaded by DeBeers and done in concert with governments and NGOs, was the Kimberley Process, an international government certification program that requires that governments certify that shipments of rough diamonds are free from blood diamonds. More than 70 governments are now signatory members of the Kimberley Process.

"The net result has been that something like 99.8% of all diamonds around the world now flow through this certificated system and are monitored to ensure that the way in which the business is being conducted is totally auditable, totally ethical, and that there is no funding that is flowing through to undesirable organizations anywhere in the world," says Gareth Penny. "I think the Kimberley Process offers itself as a role model for other industries, not only in natural resources but in other areas of the economy as well."

(BusinessWeek)

Kimberley Process Certification Scheme

The introductions about the Kimberley Process Certification Scheme (KPCS) on U.S. Department of State and Wikipedia, are convincing enough to prove KPCS is an effective soft law to prevent blood diamonds running on the market.

The Kimberley Process was launched in 2003 to control and monitor the trade in rough diamonds. In just three years, the international community has made remarkable strides to certify the \$30 billion annual international rough diamond trade by creating a documentary record of rough diamonds from mine to polishing. Rough diamonds must be shipped in sealed containers and exported with a Kimberley Process Certificate which certifies that the diamonds are conflict free.

-- U.S. Department of State

The Kimberley Process Certification Scheme, popularly known as KPCS, is a process introduced by United Nations resolution 55/56 that is designed to certify the origin of rough diamonds from sources which are free of conflict fueled by diamond production.^[1] The process was established in 2003 to prevent rebel groups being financed by diamond sales. The certification scheme aims at preventing these "blood

diamonds" from entering the mainstream rough diamond market. It was set up to assure consumers that by purchasing diamonds they were not financing war and human rights abuses.

The United Nations peacekeepers imposed sanctions against UNITA in 1998 which specifically targeted their diamond trade. This leads to a meeting of Southern African diamond-producing states in Kimberley, Northern Cape in May 2000. A culminating ministerial meeting followed during September in Pretoria, from which the KPCS originated.

--Wikipedia

DeBeers' business model has an effect on the whole diamond market

“De Beers is the largest player in the rough-diamond world, controlling some 50% of world supplies” (BusinessWeek). A map describing the relationships between DeBeers, DTC, KPCS and DeBeers' sightholders is shown in Figure22.



Figure22: Relationships in DeBeers' business model. By author.

DeBeers founded the Kimberley Process Certification Scheme (KPCS) with legitimate governments. KPCS sets out the requirements for controlling rough diamond production and trade.

DeBeers founded Diamond Trading Company (DTC). DTC is in charge of

operations of mining and manufacturing rough diamonds from countries which are members of KPCS.

DTC distributes rough or cut diamonds to other sightholders like Leo's Jewelry, Tiffany & Co. and Forevermark, over 600 diamond companies.

In another words, DeBeers' conflict-free diamond stands for most of the world's mainstream diamonds.

Huge Difference

Here are some facts about what DeBeers did to the world which were reported by diamondfacts.org.

- An estimated 5 million people have access to appropriate healthcare globally thanks to revenues from diamonds.
- Conflict diamonds have been reduced from approximately 4% to considerably less than 1% since the implementation of the Kimberley Process in 2003.
- The diamond mining industry generates over 40% of Namibia's annual export earnings.
- Diamond revenues enable every child in Botswana to receive free education up to the age of 13.
- In July 2000, the global diamond industry announced its zero-tolerance

policy towards conflict diamonds and continues to drive this policy.

- Sierra Leone is now at peace and exported approximately \$125 million diamonds in 2006.
- Today, 74 governments and the legitimate diamond industry are all committed and legally bound to eradicating conflict diamonds.
- Diamonds account for 33% of the GDP (approximately \$3.3 billion) of Botswana. Since independence in 1966, the year before diamonds were discovered in Botswana, GDP annual growth rate averaged 7%.

So many of DeBeers' important contributions happened years before the movie *Blood Diamond* (released on 2006). So it is necessary to build the transparency between the facts of DeBeers' business model to the public.

Goal of this Advertising

To my understanding of the research before, we need four steps to promote DeBeers' healthy business model, and these steps follow each other in rotation.



Figure23: Mapping the goal of this advertising. By author.

Consumers' Awareness

Awareness of the fact that DeBeers is one of a few companies concerned about sustainable production and mining before they make decisions about purchasing a diamond or not.

Calling for the consumers' awareness is the goal of this interactive installation.

Call to Action: Purchasing a Diamond

This is the blood for keeping an industry running, the material basis of an industry model, the central goal of advertising.

A DIAMOND IS FOREVER

This brand story has a dual meaning: the cultural meaning of the diamonds which stands for eternal love; second, FOREVER means the healthy environment of the industry, or the source from which the diamonds are mined will last through the decades and countries.

Improvement of Business Model

DeBeers business model will be improved and promoted and will grow up as a model for the sustainable production of diamonds worldwide and become an example to other industries.

Waking up the public's awareness of DeBeers' healthy business model is the mission of this project, or, this interactive installation. As I decided on the purpose of this project, I realized my position as the designer of this

advertising installation, was not to persuade and bring people into the store and buy one diamond, but just convince them and make them believe that DeBeers is one of a few companies concerned about sustainable production and mining, in another words, a DeBeers' diamond is conflict-free.

Strategy of Design

I kept thinking about one question for days: how to make most people believe.

I talked to people and summed up the answer, I found most people think if they see the real things exposed in front of them without modification, they will believe more or less.

From the Operating and Financial Review 2008, we know that DeBeers has mines , factories and offices in Europe, Canada, Angola, Botswana, Namibia, Kimberley, South Africa, Japan, China Etc..



Figure24: DeBeers' mines and factories in worldwide. The DeBeers Group. Operating and Financial Review 2008. DeBeers. 2008. Web. 27 Jan. 2009.

My idea is setting up cameras in all these places to capture the real time images of mining, sorting, manufacturing, distributing; events of communities in mining countries; events of catwalks and shows to the market.

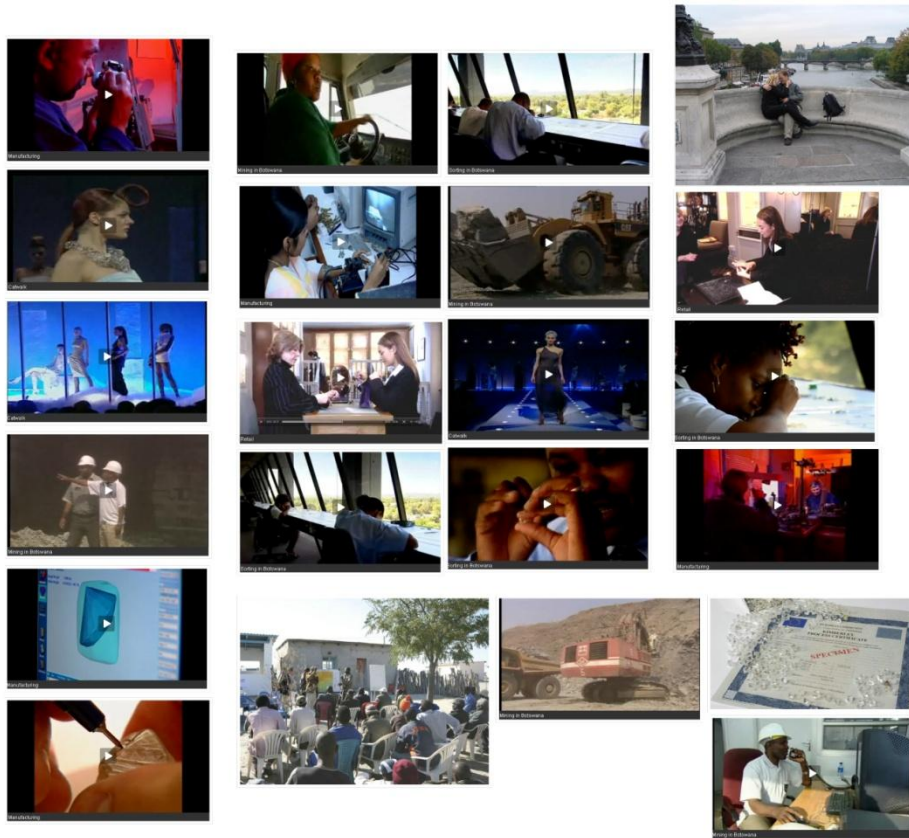


Figure25: The sources of real-time captured images

The installation will play the role as a terminal that shows these images in a certain order to the audience. Because of the lack of an adequate budget, I was unable to make the mock-up to test the design with people. So I will use computer graphic to create the simulation video in order to describe my idea.

Here is the draft of my design of the terminal installation.

Figure26: Draft of my design of the terminal installation

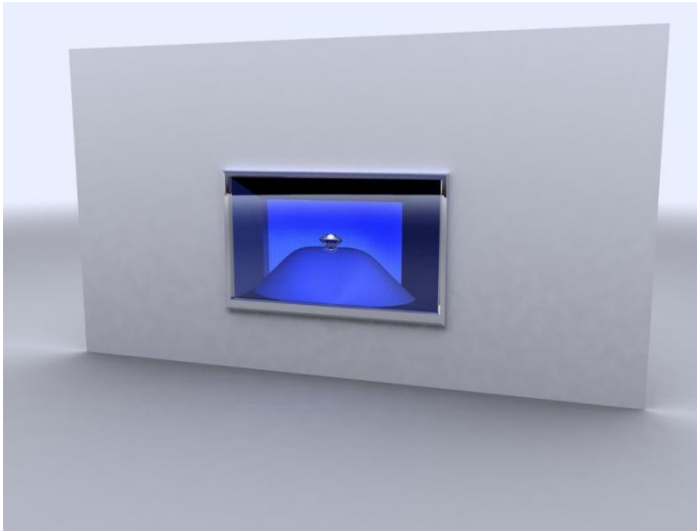


Figure26 #1

Without human interaction, it will remain still as a picture of diamond, similar to a showcase.

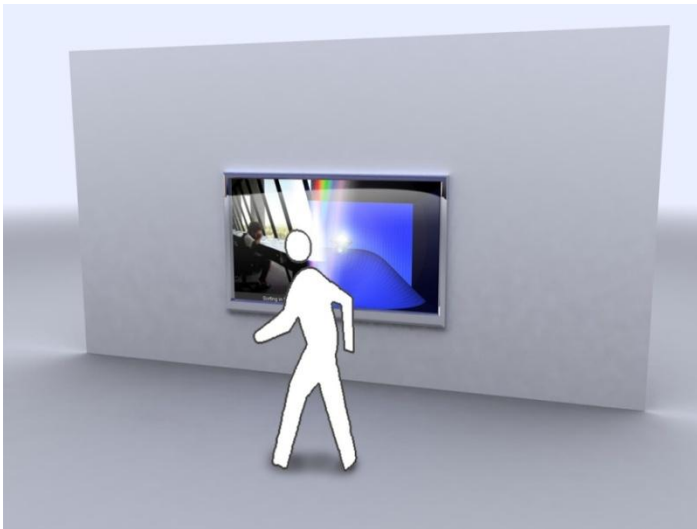


Figure26 #2

When a person is walks by or moves in front of it, a diamond glow will generate and follow the target's movement, smoothly. Every glow will also bring up one of the real time captured images with a descriptive title.

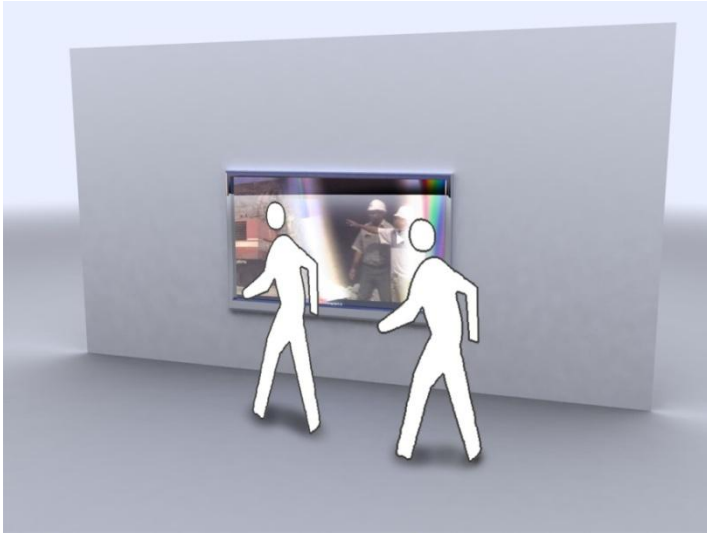


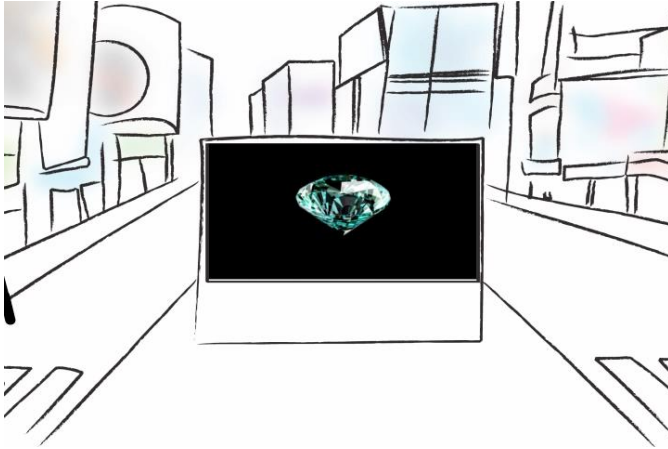
Figure26 #3

If there is more than one person, the installation will, at most, select the two closest people as targets.

In the coming section, I will show the simulation videos to tell the story about how I tested this idea with people and made improvements to my ideas.

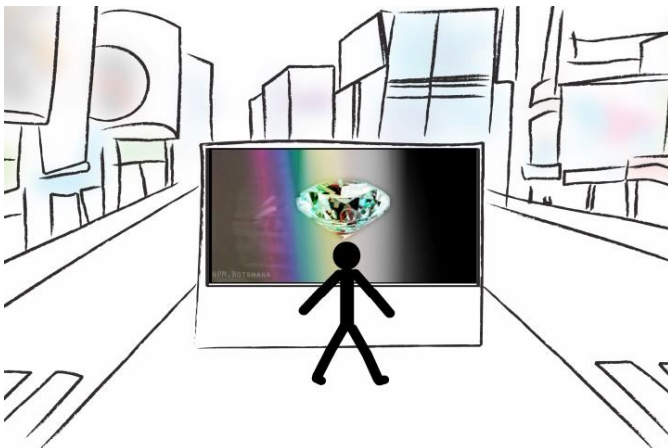
Version 1

Figure27: Snapshots of the version1 video



Before people interact with it, we can see a big, rotating diamond in the middle. This is the background of every interaction.

Figure27 #1



As described in the last section, a glow will be generated as people get closer, and the real time captured image will show up following the glow.

Figure27 #2

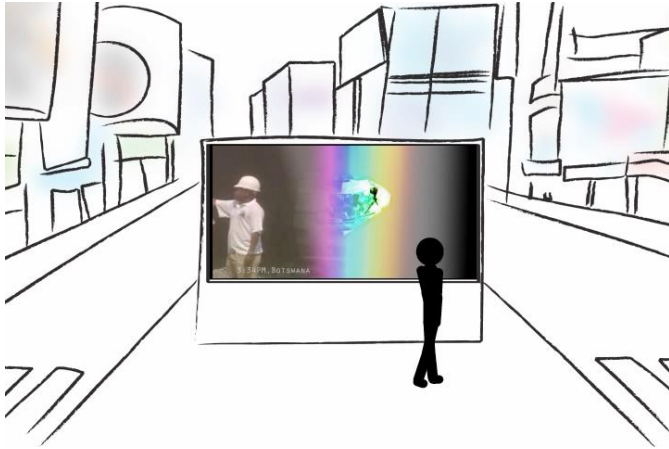
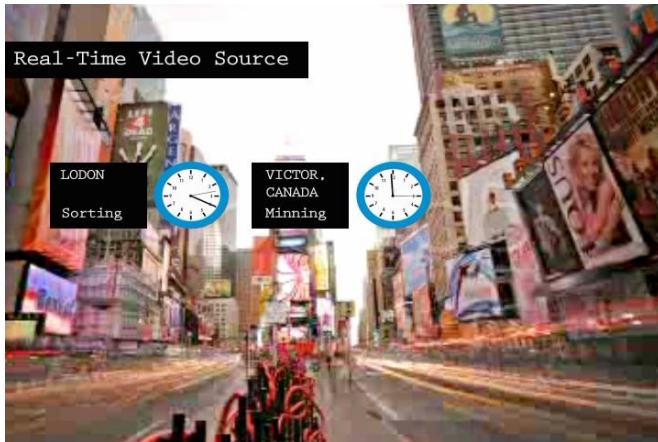


Figure27 #3



Figure27 #4

There will be some words on the bottom, explaining what the people are doing, i.e.” mining or manufacturing, and the location and the local time.



the cameras will capture images during the places' working time. The

Figure27 #5



Figure27 #6

by working images from different places because DeBeers have mines and factories in different time zones.

In the last 30 seconds, this video shows how I choose real time images from mines and factories all over the world. Since I want to capture the images with people working as possible, so

the installation is opened to the public 24 hours a day, so I have to show where I will capture the working images from for every second. Therefore in this part of this video I use Time Square in New York for example. From day to night then night to day, every second will be cover

I showed this video in one of my project's committee member meetings, and I received much feedback from my professors. The improvements I need to make for the next video are:

1. The images show up and disappear so fast that it is not easy to tell what is being shown.
2. Some images which I use to stand for the real time captured images do not look like real time captured, because the camera angles make the images look like were modified.
3. The words are not helping but are even confusing because some names of the locations are names of cities but some are countries.
4. I need to change the rotating diamond video.
5. Use a better background to replace the street view.
6. Make a better walking figure.
7. In the last section of the video, I should not use clocks to describe the idea of different time zones, to avoid confusion.

Version 2

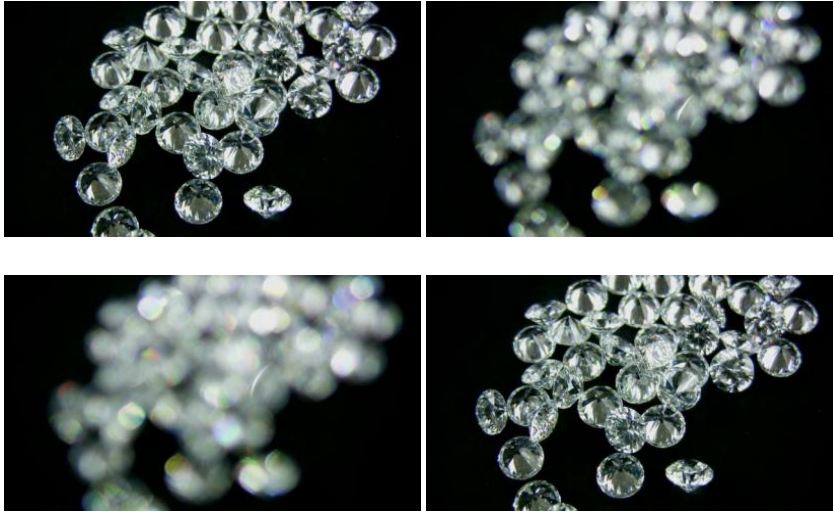


Figure28: New background image of version2 video.

The first change I made in this version is the background of the installation. I changed the rotating diamond video into a video of a handful of diamonds with the repeating lens of focusing in and focusing out. The implied meaning of this background video is that we think we are so clear about diamond, but the fact is we just not so clear about it, please come closer and see clearer.

Here are some snapshots of this video.



Figure29: Snapshots of the version2 video

Another important change I made in this video is the second section which shows the real time image sources. I changed the clocks into running cameras which signify video better.

I showed this video to 8 classmates, hoping to get some feedback from them in order to make a better video for the thesis exhibition. My plan is that I will do a questionnaire survey with the public after showing this video in the exhibition, then make the final version of this design following the suggestions. After showing the version 2 video to classmates, I decided to make these changes:

1. Make the installation longer than before because I need longer interaction to make people realize this installation is trying to tell some stories.
2. I need to redesign the interaction of this installation because it's confusing. People can not see the words and the images clearly enough.
3. I should show more interaction than just walking by because in real life it will happen in a more complex way.
4. I will abandon the second section of the video because it is not helpful to understanding my idea.

Version 3

New Interaction



Figure30: The layout of the new interaction in the version3 design.

I made the screen one time wider than before, with this better displaying condition I redesigned the interaction. I divided the whole screen into some square. Each unit contains one image. In the bottom of each unit there is a black box for the words describing the local time, name of process, and the name of the place. Each unit will show up after the diamond glow swept pass it. After 3.5 seconds the image will disappear but the black box and the words will stay one second longer, so that the words can be seen more clearly.



Figure31: Snapshots of the version3 design video.

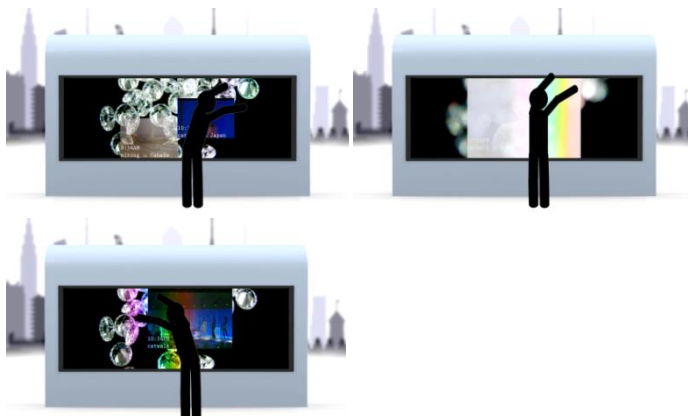


Figure32: Snapshots of interaction in the version3 design.

In this video I have one part which is showing the interaction of someone playing in front of it, and the glow will move in the same direction with the person's movement.

Beside this video, I also have a questionnaire survey to help me collect people's

suggestions.

I got 54 finished questionnaires in total, and one fact is that 52 of these people agree with me that showing the real situation of how DeBeers is working on its career is a convincing way to make people believe DeBeers' business model is healthy.

Have you heard about “Blood Diamonds?”					
YES			NO		
Have you heard about DeBeers?					
YES			NO		
If yes , how do you feel about DeBeers?					
What words do you think best describe this installation?					
How do you feel about it? Feel free to mark more than one.					
Interesting	Attracting	Confusing	Annoying	Inconsequence	Disconcerting
Informed	Happy	Unity	Peaceful	Strange	Bored
Or:					
What do you think this installation is trying to communicate?					
How do you feel about the diamond industry in general after watching the video?					
If DeBeers is willing to expose real time images of its diamond mining operations, will you consider them “blood diamond” free?s					

Figure33: Questionnaire survey

Version 4, Final Version

Improvements inside the installation

First, I made the final decision about the sources of real time captured images.

People think the video is not able to tell the story because of two reasons: the images were picked up from a random place; some subjects of the images are confusing, for example, the catwalk show in Japan.

According to Operating and Financial Review 2008, DeBeers' mining [process mainly operated in Canada, Namibia, South Africa and Botswana.

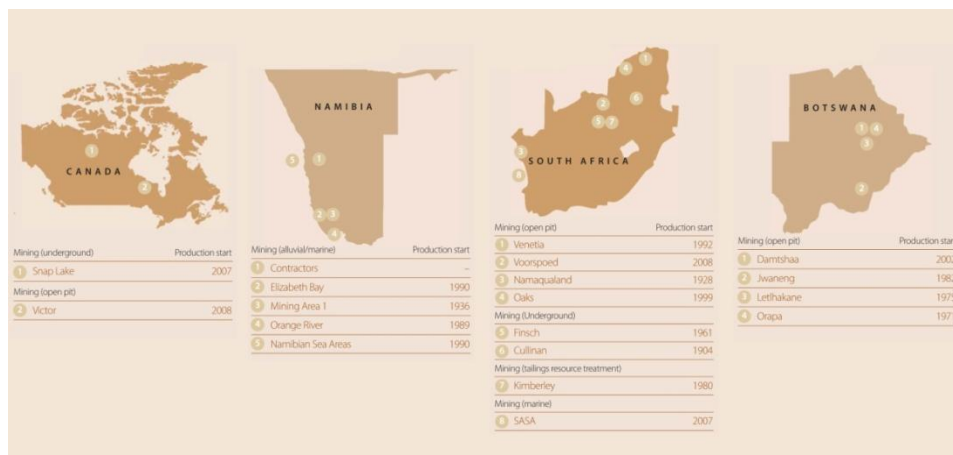


Figure 34: The main mines of DeBeers in worldwide. The DeBeers Group. Operating and Financial Review 2008. DeBeers. 2008. Web. 27 Jan. 2009.

Spots being showed above are the locations of the mines. I then decided to 'setup' cameras just in the mines, factories, health care centers and educational facilities which were sponsored or established by DeBeers. I will categorize these images by countries. In every eight seconds, I will show images from areas in one country. In the other eight seconds images will be

picked up from areas in another country. The cycling countries will follow this order: Botswana, Namibia, South Africa, Canada.

How can I still make sure that every image shows up on the installation is in the location's working hour? I decided not to. The reason for this change is that showing an empty factory, which is no doubt an good working environment, will enable people know how DeBeers is doing its job.

Second, I added the DeBeers' logo and slogan on the upper-right hand corner of the screen, hoping that it can tell the brand story better.

Medium of this interactive installation

The display device could be The 46" NEC MultiSync X461UN.

The 46" NEC MultiSync X461UN is about to revolutionize how LCD video walls are perceived. Its screen-to-screen distance between two neighboring displays is 7.3 mm. The display, which is ideal for digital signage and broadcast applications, can be deployed in video wall matrices of up to 10x10 (100 displays), creating a total surface area of approximately 645 sq ft. The barely discernable transition gap between displays ensures a homogenous picture across the matrix.



Figure35: Sketch map of combination of The 46" NEC MultiSync X461UN. By author

The size of each 46" NEC MultiSync X461UN is 40.4 x 22.8 x 5 in, and I am using 8 of them (4 x 2).

So the size of this design will be 161.6 x 45.6 x 5 in

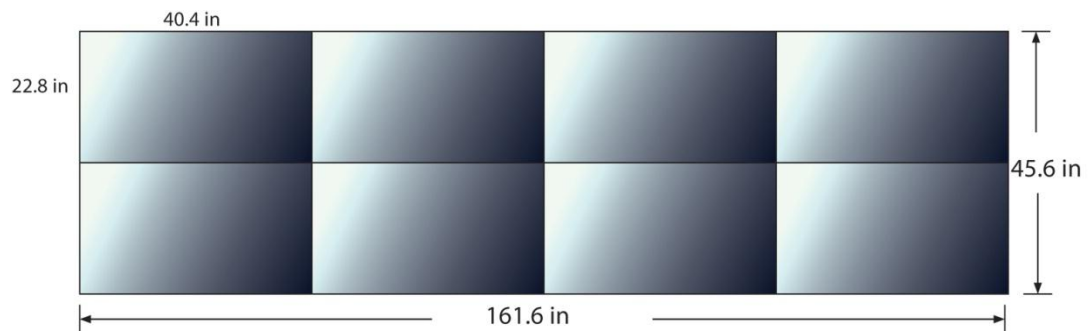


Figure36: The size of combined displays. By author.

The combined screens have a screen-to-screen distance between two neighboring displays of 7.3mm. Because of these visual “lines”, I need to design the layout of the whole picture in order to avoid the lines covering the words.

To show the content of interactions better, I am going to add some zooming in and zooming out effects in the video.

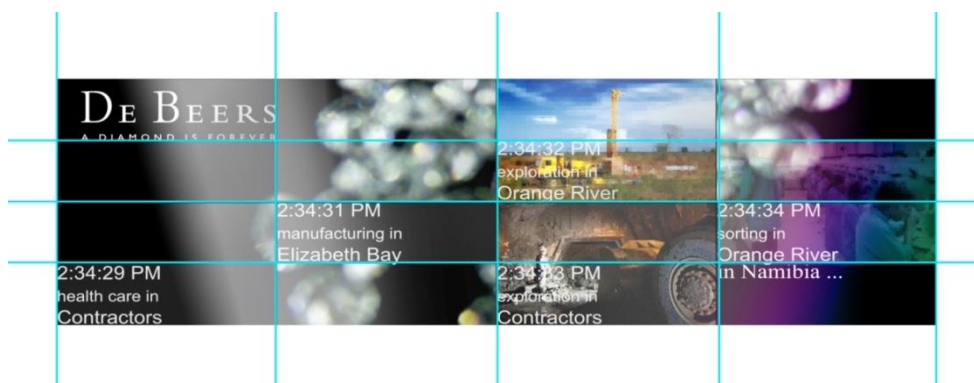


Figure37: The layout design for the whole screen. By author.

Location of the installation

The locations for this installation might be some middle or high-end enclosed shopping malls, or the main business or shopping districts in highly developed cities.

People living outside of big cities like New York City seldom walk. Because this interactive installation is reacting to people walking by and because the target consumers are people who can afford diamond jewelry, high-end shopping malls in suburban and busy high-end shopping districts in well developed cities are good locations for this interactive installation.



Figure38: Images of locations

Background picture of the new simulation video

I went to a mall near the Rochester Institute of Technology (RIT) campus and took a photo of a long wall to make it my simulation video's background.



Figure39: Background images of the new video

Green Screen video Technic

In order to have a best simulation, I decided to use real people as actors rather than cartoon figures. I invited three people to the GCD department's Green Screen room to make the raw material for my video.



Figure40: The use of Green Screen video Technic

The Final Video

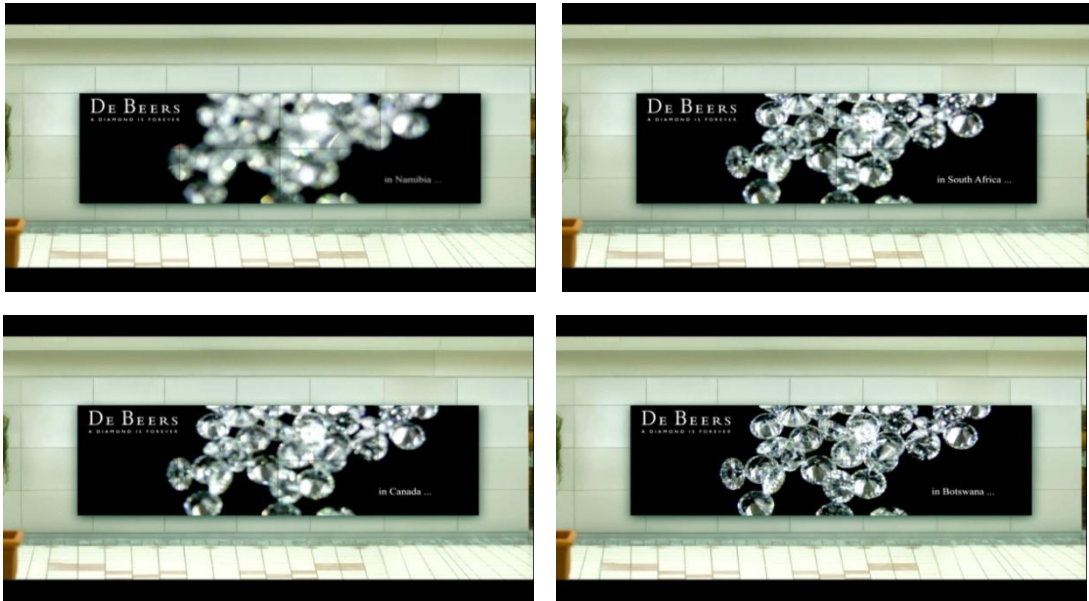
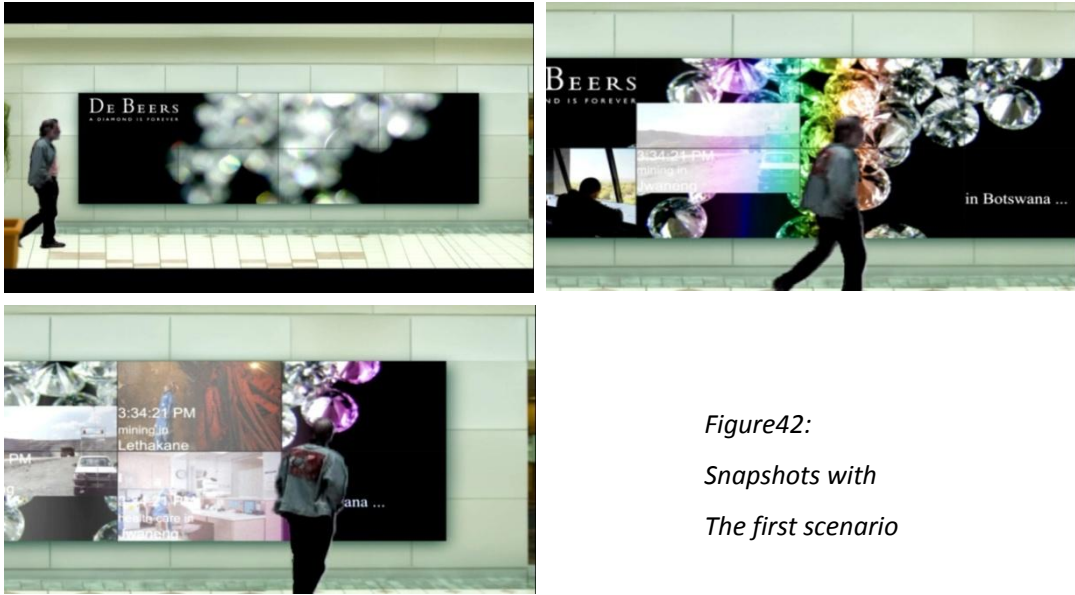


Figure41: Snapshots of the final video

In the beginning 32 seconds, nobody will interact with the installation. : I made this part for the purpose of showing that every 8 seconds, the location of the images' source will change. In the down-left of the screen there is the name of the country which the images come from.



*Figure42:
Snapshots with
The first scenario*

The first scenario comes into the scene. He noticed the interaction happening between him and the installation. But perhaps his lack of interest in the topic of diamond caused him to walk away without paying too much attention.

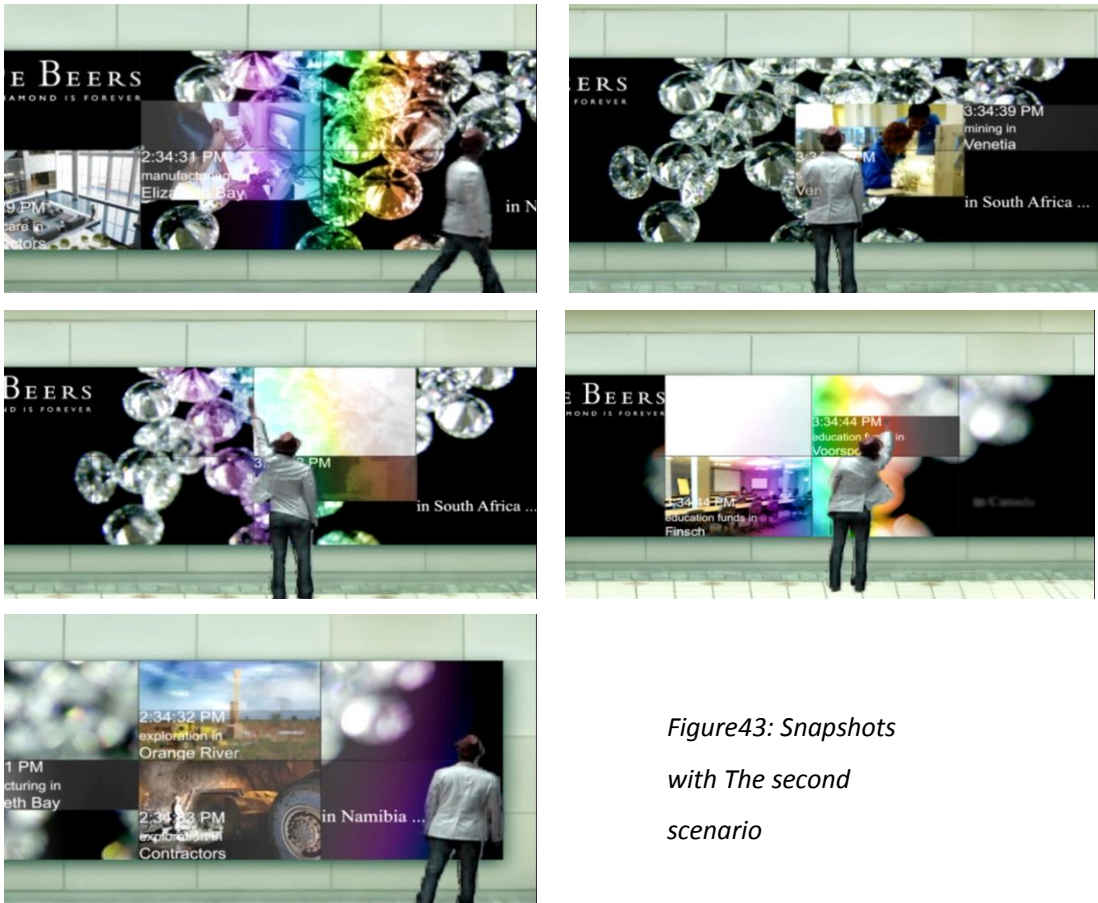


Figure43: Snapshots with The second scenario

The second scenario is as young man. He noticed the interaction and was interested in it, so he went back to the middle of the screen to play with it.

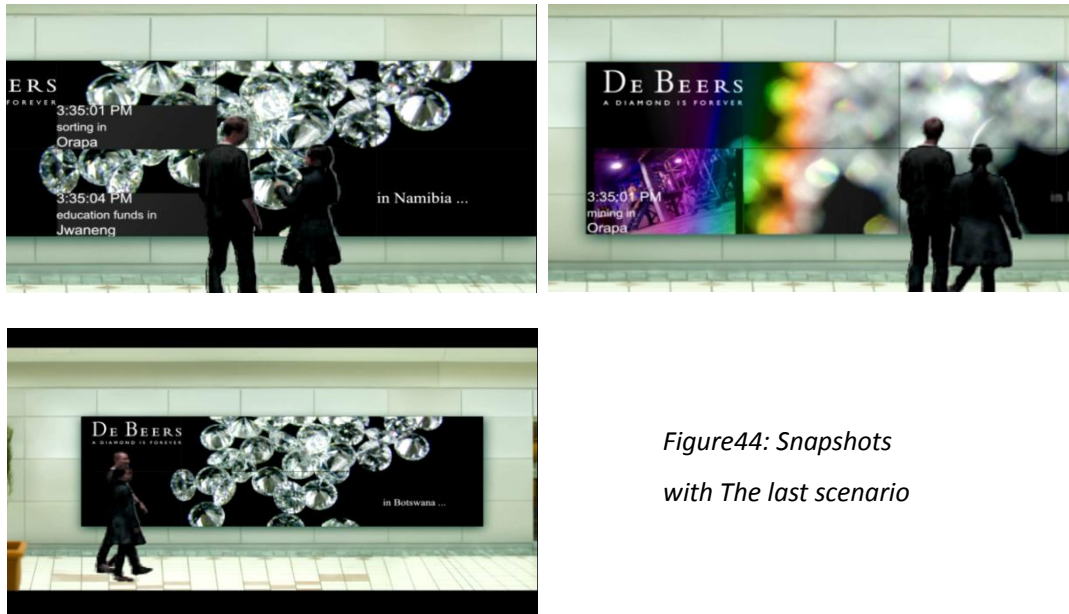


Figure44: Snapshots with The last scenario

The last scenario is a couple. They notice the interaction and talk about the diamond.

Accomplishments & Implication

Summary

To prove the statement I made in the introduction section, "the use of interactive installation as an advertising medium, further more, and how we can use interactive installation to communicate with consumers better than traditional advertising medium to build a relationship between consumer and product", I explored deeper application of interactive installations as an advertising medium. Beyond eye-catching, I proved that interactive installation potentially can bring new meanings to advertising, a stronger relationship between products and consumers.

In this project I also associated social responsibility with interactive installations in this project. I am trying to help the growth of healthy business model with the use of two way communication which was build up by interactivity technologies.

What did I learn from this project

I learned the skills of researching information about companies. I applied some industrial design principles into this project: By doing tests with people, I used the principle of user-centered experience when I was making decisions of the scale

and size of the installation. Also when I was designing the interaction of the installation, I also used some principles of user-interface as guidelines.

Implication for future research

Making simulation videos is the way I used to test this idea with people. By doing this I showed to people how the interactive installation works and how the installation is interacting with people. In the future I will make working mock-up if I have adequate budget and computer programming techniques.

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