

UNDERSTANDING THE TECHNOLOGICAL TRENDS OF PAST AND PRESENT

SUMMER INTERNSHIP PROJECT BY
CHINMOY KUMAR DAS
ROLL NO: 06633007

GUIDE:
DR. AJANTA SEN POOVAIAH
PROF. RAVI POOVAIAH

INDUSTRIAL DESIGN CENTRE
INDIAN INSTITUTE OF TECHNOLOGY
MUMBAI

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I would also like to thank Prof. Aniruddha Joshi who taught us Interaction Design and helped me understand this subject thoroughly.

APPROVAL SHEET

The Summer Internship Project titled “Understanding The Technological Trends of Past and Present” by Chinmoy Kumar Das, Roll No: 06633007 is approved for partial fulfillment of the requirements for M. Des. degree in Interaction Design.

Signature of the Guide:

CONTENTS

1 About the project	
1.1 Introduction	1
1.2 Process: Research, Design Problem	2
2 Research	
2.1 Interactive Products (1990-2006)	5
2.2 Child Products (1990-2006)	6
3 Observations	
3.1 Interactive Products	28
3.2 Child Products	28
4 Design Problem	
4.1 Problem Definition	28
4.2 Design Solution	28
5 References	28
6 Bibliography	28

ABOUT THE PROJECT

1.1 Introduction

It is my design desire that I will establish my own design setup and that is the reason to search for and understand technology and how to commission the design work. As I'm going to take up project -2 which involves the child and interactive product so it was my prime concern that I should make an intensive research in these areas.

ABOUT THE PROJECT

1.2 Process: Research, Design Problem

To understand trend and technologies I made a vertical analysis of INTERNATIONAL DESIGN journal (from 1990 to 2007) and came up with some remarkable observations. During my research I made a chronological analysis of different products as those were the mirror of the products, released in the western market. To have the sense of those products I made lots of sketches and detailing of the products. Latest product in the market doesn't give the information of latest technologies. Also I wanted to decide upon the material that I want to use in my product. Therefore my aim was to be aware of lab environment for the market which is the upstream part of the work in the industries. For the larger vision of technology I studied journals of Scientific American, IEEE Spectrum, different e-journals, newspaper and website which gave me the impression of landmark discovery, invasive/ non-invasive material, ubiquitous materials, carbon driven technology, wearable product, surgical technology, nanotechnology, thermal sensor, motion sensor, optical sensor, gesture based interface.

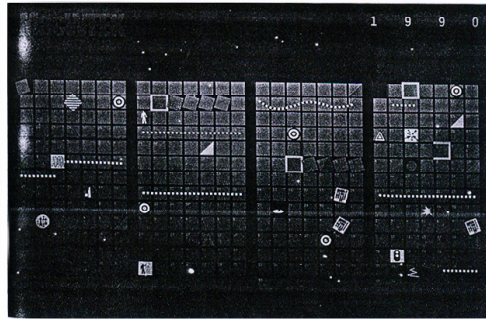
Finally I had been given a design problem which was to design interactive game installation for children.

RESEARCH

2.1 Interactive Products (1990-2006)

1990

Source: ID March April issue



MACWEEK INTERACTIVE WALL CALENDER

Used as a promotional tool MacWeek Magazine, the interactive Wall Calendar was praised for being “utterly appropriate” for its recipients, the magazine’s current and potential advertisers. “I can really imagine this landing on the walls of its intended audience,” said Bierut. “It strikes me as fitting right in with the computer environment.” Sussman noted that, as opposed to other promotional calendars, this one was substantial. “It’s really more of an object than a calendar per se,” she said. In summation, Bierut said, “The piece is beautifully done and very distinguished. And the addition of movable stickers emphasized the idea of interaction, which ties in with the whole idea of using computers.”

CLIENT: MacWeek Magazine, San Francisco, CACONSULTANT

DESIGN: Mauk Design, San Francisco, CA. Mitchell Mauk, designer

MATERIALS/FABRICATION: Silkscreening; Calender Clear Lexan stock; static clingvinyl stickers; Orator and Franklin Gothic Heavy type

RESEARCH

2.1 Interactive Products (1990-2006)

1990

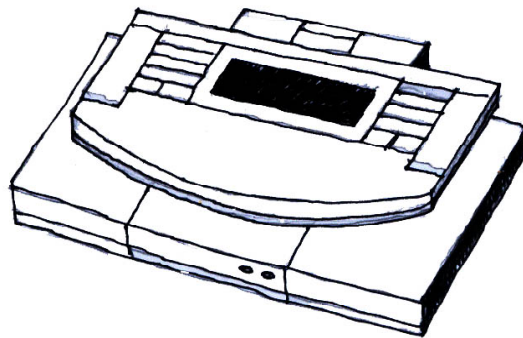
Source: ID March April issue

INTERACTIVE TELEVISION TERMINAL

The idea of television as a strictly passive medium is under reevaluation by companies like interactive Network, which has launched an interactive control device that allows home viewers to “play along” with television game shows, sports events, educational programs and other TV shows. Users subscribe to the service, which is broadcast via radio signals to the cordless interactive control unit. Since no precedent existed for this product, the client brought in a team of development consultants at an early stage, thus allowing designers to make a significant contribution to the product’s final form.

CLIENT: interactive network, CACONSULTANT DESIGN: GVO Inc., Palo Alto, CA

MATERIALS/FABRICATION: Injection –molded polycarbonate terminal body; double shot injection-molded ABS keys and base; molded rubber Qwerty keyboard.



RESEARCH

2.1 Interactive Products (1990-2006)

1991

Source: ID March April issue

HEARSAY VOICE CONVERTER

A product designed to offer telephone communication to the deaf, the Hearsay proposes that synthesized voice technology could allow hearing deficient users to read the simulated lip movement of a non-deaf caller on an LCD screen. A written response would be converted into a synthesized voice, thus allowing the hearing impaired to communicate with anyone calling on a standard phone.

DESIGN: Barry Sween, student, California State University at Long Beach, Long Beach, CA. Mike Kammermeyer, instructor

MATERIALS/FABRICATION: Acrylic-fabricated model.



RESEARCH

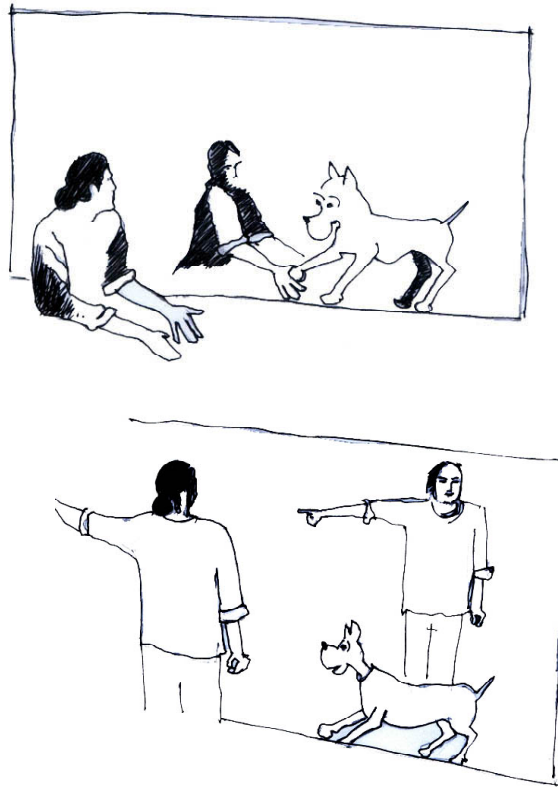
2.1 Interactive Products (1990-2006)

1995

Source: ID March April issue

MIT Media Lab's ALIVE

Researchers at MIT's Media Lab have looked at the ramification of agents from various perspectives. In associate professor Pattie Maes's ALIVE (Artificial Life Interactive Video Environment), the world of agents becomes three-dimensional. Combining ideas about "rules" from artificial life and complexity theory with elements of virtual reality, ALIVE lets people interact with semi-independent agents. The user's motions are "read" by a combination of video and computer. Movements within a 16-foot square make the user a kind of 3-D mouse. On the screen, the so-called "Magic Mirror", there's an odd sense of dislocation as the user sees his or her choppy image interacting with, for instance, a green terrier programmed to "need" petting. A group of agents including a Pappet, a Hamster and a Predator not only react to the user but to each other.



RESEARCH

2.1 Interactive Products (1990-2006)

1995

Source: ID July August issue

Picasso Interactive Documentary

This interactive multimedia piece is designed to integrate the different facets of Pablo Picasso's life and work. Using the program, we can take a look at his personal life and loves; the 20th century would around him; significant cultural figures who made up his circle of friends and colleagues; and last, but not least, his works of art. This piece is not just a retrospective catalogue or database of Picasso's art. In addition to seeking his work, we can listen to his words and those of people around him, getting a glimpse into how he lived from his own perspective, as well as those of his contemporaries. In 1917, for instance, we can choose to examine life with Picasso from his wife Olga's point of view.

i/o 360 Portfolio

"Life an old penny arcade game or a radio dial," was how Cotton described the restrained peek-a-boo quality of the i/o 360 portfolio. Working within a minimal black-and-white palette, the designers' objective was to convey their New York-based firm's identity and services as an interactive design group.

RESEARCH

2.1 Interactive Products (1990-2006)

1995

Source: ID July August issue

American Centre for Design's Interact CD-ROM

The American Center for design's Interact CD-ROM was intended to appeal to a Macintosh-literate, multimedia-aware and visually opinionated audience-namely designers. Its second goal was to create an interface suitable for a diverse range of interactive projects from some 28 designers, including 8vo, P. Scott Makela, daniel Boyarski, Gitta salomon, Aaron Marcus and others. Along with these pieces each designer (or team) submitted an article that was published in an issue of the ACDjournal that accompanied the CD-ROM. The challenge of presenting classic editorial content in an electronic medium was made greater by the need to package multiple articles in an information space that offered additional, but unobtrusive, commentary to the user.

RESEARCH

2.1 Interactive Products (1990-2006)

1995

Source: ID July August issue

Woman at Risk

Carolyn Sherins's graduate thesis project. *Woman at Risk*, uses interactive media to raise public awareness about the danger of HIV infection among women. Designed as a touch screen interface to be housed in a public space, Sherins opens her prototype with an "attract loop" - a self-repeating series of images that dissolve into each other, juxtaposing romantic pictures of couples with startling social messages. Touching the screen stops the loop and launches the program, which subdivides into areas exploring such topics as risk factors, social attitudes and proper prophylactic use. The last section features an inspired choreographic animation of colored condoms that, though irreverent, provides a welcome respite from the seriousness of the topic and succeeds in delivering the necessary information with clarity and purpose.

RESEARCH

2.1 Interactive Products (1990-2006)

1995

Source: ID July August issue

CSCA Interactive Catalogue

This CD-ROM presents an interactive showcase of the winners from last year's Columbus Society of Communicating Arts exhibition. Entry information, video interviews with winners and color photography of over 70 winning pieces are organized in a simple interface that compartmentalizes the screen in elegant and effective ways. While the jurors initially argued that the interface overwhelmed much of the work within, they eventually agreed that it was the most "functional" and "easy to use" of the portfolios submitted.

Body Vision

Body Vision, submitted by Learn Technologies Interactive-Time Warner as an early demo of a massive, navigable 3-D model of the human body, will allow users to fly through body parts at varying levels of anatomical depth. Although this journey is accompanied by multimedia "annotations" that clarify one's path, the jurors agreed that the project's delivery was "crude" and "only a sketch." While extremely promising, they concluded that body vision has navigational issues that remain to be addressed.

RESEARCH

2.1 Interactive Products (1990-2006)

1995

Source: ID July August issue

Encarta

The jurors were impressed by the PC formal graphic sophistication of this CD-ROM. As the grown-up version of the Explorapedia series, Microsoft's Encarta features a revised color palette and simplified typographic scheme for its Windows interface that focuses on better way finding systems and more heightened levels of user feedback.

Joshua Distler Portfolio

Blender Digizine CD-ROM

Highway 61 CD-ROM

Doors of Perception CD-ROM

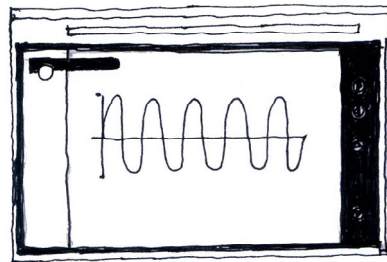
Dazzeloids CD-ROM

RESEARCH

2.1 Interactive Products (1990-2006)

1997

Source: ID June issue



ELECTRONIC MUSIC INTERACTIVE WEB SITE

The Electronic Music Interactive is a Web-based primer for students of electronics, Designed by the New Media Center at the University of Oregon. Electronic Music Interactive offers a rich encyclopedia of electronic music terms; including basic information ranging from the nature of different wave forms to an explanation of filters, oscilloscopes and synthesizers. The encyclopedia exists as a streamlined Director movie, allowing for control over fonts and design normally impossible in HTML. Information is organized in several ways - by topic and categories, and alphabetically. Information on one subject will lead, where appropriate, to other, branching subjects. This is a traditional form for delivering factual information online, and the jury found its implementation here especially engaging, praising the New Media Center for its mix of technology and design in a small package. The jury noted how well the Electronic Music Interactive blended the technology of animation and Director movies with the limitations of the Web, assuming slow Internet connections. "This is a modular, extendible design," Greenblat said, "The tool used to locate topics can shrink or grow according to how much additional information you want. It really is self-adjusting, which is very useful online, with everyone connecting at different speeds."

RESEARCH

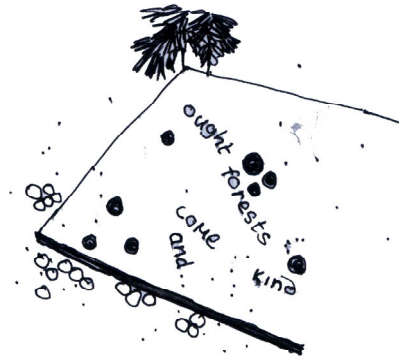
2.1 Interactive Products (1990-2006)

1998

Source: ID June issue

STREAM OF CONCIOUSNESS: AN INTERACTIVE POETIC GARDEN

Set within a miniature garden with flowing water, sand, rive stones and a bench for visitors, Stream of Consciousness, designed by MIT Media Lab students David Small and Tom White, is a computer mediated interactive installation in which visitors use a hand-controlled, bladder-like interface to manipulate words projected onto a pool of water. The words, which imitate the physical behavior of objects floating in a real fountain, can be pushed apart or recombined, causing them to divide and grow into new words.



RESEARCH

2.1 Interactive Products (1990-2006)

1998

Source: ID June issue

INTERACTIVE CHRISTMAS CALENDER

Designed by the Burnett Group Europe as a promotional gift for existing and perspective clients, the company's Interactive Christmas calendar display 24 engaging holiday-themed windows arranged within a colorful singular screen. Similar to a traditional Advent calendar, overlapping numbered boxes upon up into charming vignettes that invite activities such as dressing up a snowman, engaging in bell ringing and watching Yule-inspired video clips.



RESEARCH

2.1 Interactive Products (1990-2006)

1998

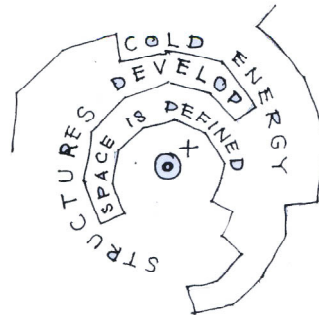
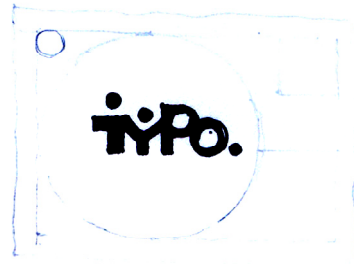
Source: ID June issue

TYPO (CD-ROM)

Brooklyn-based Dialog box created the 3 cd-rom as a modest collection of typographic experiments based on the geometries of the circle, triangle and square. Using animation, sound and video, the disk provides an interactive forum to examine logotypes, letterforms and word construction.

CONVERGENCE FUTURE THEORY (CD-ROM)

ZERO ZERO (CD-ROM)



RESEARCH

2.1 Interactive Products (1990-2006)

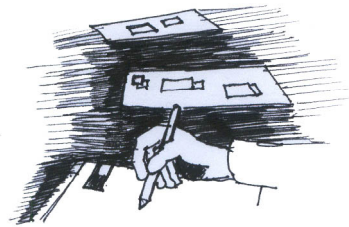
2001

Source: ID May issue

INNOVATING IBM

Based on the principle that good design is good business, IBM recently commissioned the Hollywood design studio Imaginary Forces to create a one-of-a-kind experience for the Center for IBM e-business Innovation in Chicago. Designed to reflect e-business values of openness, collaboration and flexibility, the center offers companies the expertise and interactive technology needed to strategize, develop, implement and manage Web-based e-business. "The center needed to communicate as much in its form as in its content," says Mikon van Gastel, creative director. "the idea of a U-shaped conference table and boring PowerPoint presentation from behind a lectern don't really represent new business process, attitude and cultures that are being introduced by successful e-business. IBM needed to shift gears and create a space that represent a more dynamic, collaborative IBM."

That's where imaginary forces came into play. The team introduced a holistic approach: design, technology and architecture combined to tell a compelling story. The result was a design that features flexibility, transformable spaces and translucent materials to convey openness and opportunity.



RESEARCH

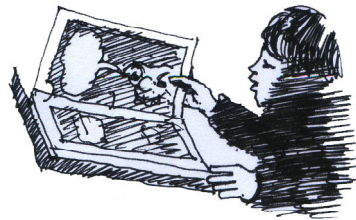
2.1 Interactive Products (1990-2006)

2001

Source: ID June issue

LISTEN READER

The concept of the e-book tends to conjure up a depressing image of growing letters crammed onto a tiny green screen; the smell, the heft and the visual display of bound pages are all lost in the technological overhaul. But Listen Reader succeeds where most e-books fail. Created by the Research in Experimental Documents (RED) group at Xerox Palo Alto Research Center, the prototypical design preserves the experience of reading a book, using technology to enhance-rather than reinvent-what wasn't really broken to begin with. Listen reader hypothesized about how we might read in the future. Ever observant of our innate comfort zones, the project melds digital technology with tactile elements such as a comfy chair, a polished wood reading stand and leather-bound children's book with actual pages. Embedded in the pages are sensors that trigger sounds relevant to each page's content when a hand is brushed over them. Sounds play through speakers located through inside the seat-back's wings.



RESEARCH

2.1 Interactive Products (1990-2006)

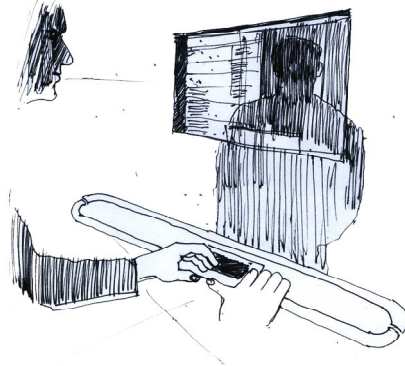
2001

Source: ID June issue

THE DOOR/LIVING MEMORY

As the number of artists create online work continues to grow, museums face the challenge of presenting digital art in the context of larger exhibits without creating a sterile and uninviting environment. The Door, an innovative kiosk designed by Antenna Design New York for the Walker Art Center in Minneapolis, tackles this problem head-on by turning the private experience of visiting Web sites into a public performance. The interface visually connects browser-based pieces with physical objects on display.

The platform is ingenious. An LCD screen and a notebook computer with a wireless internet connection are sandwiched between two one-way mirrors, forming a revolving door. Users navigate through the center's Art Entertainment Web Site by pushing and rotating the door. Every few degrees, a new Web site appears through the mirror, accompanied by the sound of a doorbell ringing. Using a track pad in the door's handle, individuals can easily navigate within each site.



RESEARCH

2.1 Interactive Products (1990-2006)

2003

Source: ID November issue

ANTENNA DESIGN'S INTERACTIVE INSTALLATION

In 1876, when John Wanamaker opened America's first departmental store, the design of the window displays played a crucial role in encouraging a skeptical Philadelphia public to participate in America's nascent consumer culture. More than century later, when shopper's reluctance to enter a store has more to do with a lack of time than a lack of will, shop windows are still designed to seduce passerby- which is why Antenna Design's interactive installation in the windows of New York City's Bloomingdale's, a part of initiative sponsored by Haagen-Dazs following 9/11 was so arresting. For three weeks, the windows on Lexington Avenue were abloom with a row of 32 five-foot-tall neon floral sculptures set against a white spandex backdrop. Motion sensor designed to respond to people walking by triggered the flower's illumination and ambient sound. The effect was random enough to make the action seem autonomous. At Staken's put it, "department store windows are designed to lure you in to buy something, so to have an interactive installation that actually gives something back to you, that reflects your motion out on

the street, is one reason this piece has merit." One of the particular challenges of street-situated installations is capturing people's attention long enough to engage their imagination. Power Flower did both. "New York is a city of perpetual animation.," say the designers in their project description. "In a time of uncertainty, we wanted to celebrate this collective energy that shapes the city, by creating a piece that responds to the public."



RESEARCH

2.1 Interactive Products (1990-2006)

2003

Source: ID November issue

LAND DESIGN STUDIO'S PETER HIGGINS

When Urbis, a museum about contemporary urban life, opened last year in Manchester, England, it was Land Design Studio's Imaging the City, an interactive installation on the top floor, that stole the show. The London based audiovisual design studio created a work that invites visitors to explore a range of creative responses to the concept of the city. Images representing projects by architects, artists, filmmakers, photographer, and authors are projected onto a sleekly undulating polycarbonate armature. The pictures stream horizontally across the surface of a structure housing an intuitive electromagnetic interface. With a Minority Report- style sweep of the hand, visitors can select of 128 items from menus labeled "City of Emotions", "City of Pleasures," "City of Imaginings," and "City of Senses." Digital fractals drawn from the item's source image are transferred onto an overhead panoramic screen where a fantastic future city is built in real time by the combined activity of the community of museum goers. "Our ambition is to provide intuitive interfaces (sensory devices) that encourage memory learning through cognitive engagement and an entertaining experience," say the installation's designers. The jurors were drawn to the installation beauty and facility. Hughes enjoyed its self-explanatory nature. "As a piece of exhibition design it appears to be very accessible. It's a table you walk up to. There are big pictures to choose from and no visible technology on the table itself." The metaphor of "creating a built environment out of cultural references" resonated particularly with Stakenas.

RESEARCH

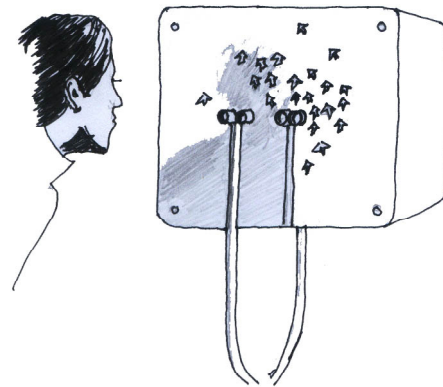
2.1 Interactive Products (1990-2006)

2003

Source: ID November issue

INTERACTIVE INSTALLATIONS FOR NEW YORK CITY GALLERY ENVIRONMENT

Antenna Design made Day Six, an interactive installation that plays on the creation myth, for a New York City gallery environment. Inside the white walled space, visitors were presented with a pair of abstracted metal nostrils suspended in front of a bathroom-sized mirror. As Stakenas described it: "When you blew through the double nostril you would see, in your own reflection, digital icons coming out of your mouth like breath. After blowing and blowing you'd have to take a breath and then all of a sudden all of the icons were sucked back into your mouth." According to Antenna, the act of watching yourself exhaling and inhaling a random selection of icons representing qualities such as youth or beauty is "a humorous commentary on our desire to improve ourselves through the use of technology." As with much of their work, Antenna use simple, low-tech designs to push the distinction between identity in the physical world and the virtual world. In developing Day Six, Antenna toyed with a one of the classic dilemmas of any kind of interactive installation in an exhibition context: How much do you tell the visitor? "The discovery is actually an important part of the process." says Stakenas.



RESEARCH

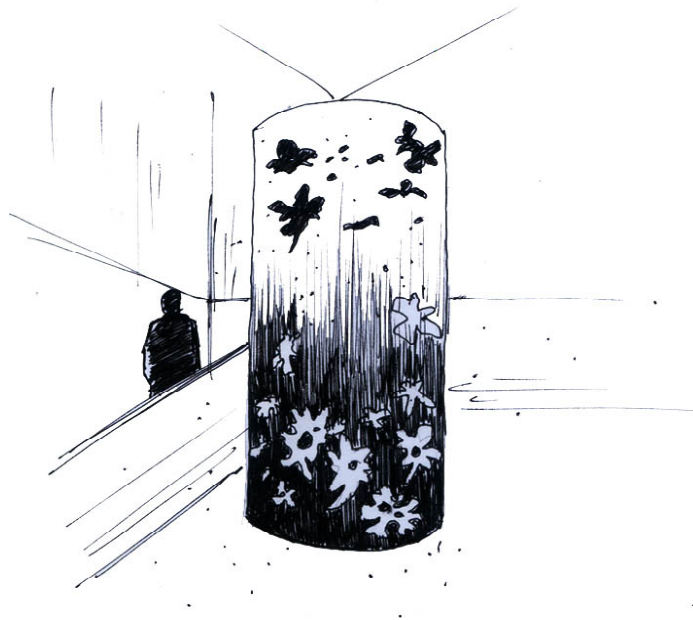
2.1 Interactive Products (1990-2006)

2004

Source: ID July August issue

CHERRY BLOSSOM

Developed for the Cooper-Hewitt, National Design Museum's second Triennial exhibition, Cherry Blossom was a semi-cylindrical installation on the stairwell. Visitors to the renowned Carnegie mansion, where the museum is housed, triggered sensors on the on the Beaux-Arts staircase that produced a flurry of digital cherry blossoms accompanied by ascending or descending tones from embedded speakers. When the staircase was empty, the swirling blossoms faded into a silent snowfall, suggesting that human interaction alone can animate and warm a space. The experience, jurors agreed, was delightful and transformative-not only of the museum's notoriously overpowering interior, but also of the simple act of climbing stairs. "Really ingenious," said Ockman. "It's so appealing in the way it took over the stairwell from the Tiffany chandelier to the ground."



RESEARCH

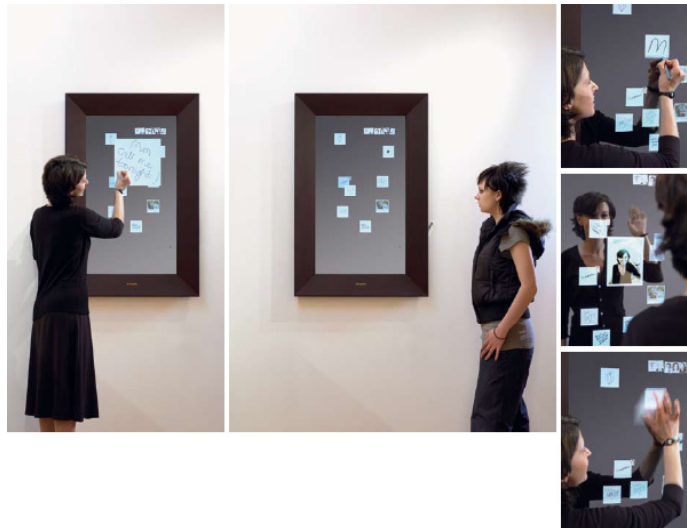
2.1 Interactive Products (1990-2006)

2006

Source: <http://www.simplicityhub.philips.com>

In Touch, PHILIPS PRODUCTS

A family message board on which to leave or send and receive informal communications Hung in any place that everyone in the house passes by daily, In Touch aids unprompted and ephemeral communications amongst family and friends. This interactive, touch-sensitive mirror enables people to send and receive notes, drawings or video clips, and acts as an interactive alternative to scraps of paper stuck to the fridge. In Touch aids the creation and the exchange of a variety of messages - handwritten text, drawings, snapshots or video clips. Use the dedicated stylus or the tip of your finger to create, view and rearrange the messages you and others have posted to each other directly onto the board, or remotely from another location. Send them to family or friends simply by dragging and dropping them onto the image of the recipient. New messages appear on top of previous messages and darken them slightly; the older the message, the darker it becomes until, after a couple of days, it disappears automatically. Reorganize the messages displayed by moving them around with the tip of your finger. Tap on a message to enlarge it.



RESEARCH

2.2 Child Products (1990-2006)

1990

Source: ID July August issue

**COMPUTER INTERFACE FOR CHILDREN
RHODE GEAR CHILD'S BIKE SEAT**

1993

Source: ID March April issue

HIGH TECH CARTOONS

1995

Source: ID July August issue

COOPERATIVE LEARNING CLASSROOM

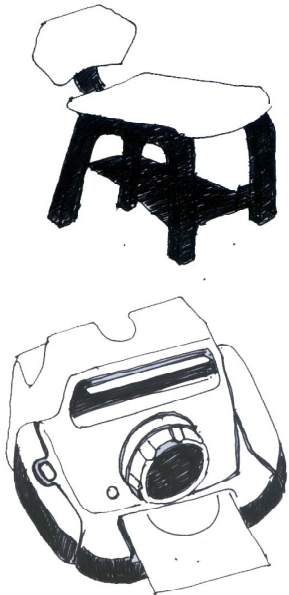
Source: ID November issue

TOY STORY

1996

Source: ID November issue

BABY PAPARAZZI



RESEARCH

2.2 Child Products (1990-2006)

1997

Source: ID January February issue

SUPER DUPER MARIO

Nintendo, the company whose product named a market, reentered the competitive melee of consumer electronics with its Nintendo 64 (N64) game system. Using hardware created by 3-D specialist Silicon Graphics and flouting convention by not including a CD-ROM drive, the \$199 device raised a bar of innovation on several levels.

The N64's three-dimensional computing ability left most personal computers in the dust, allowing designers and developers to create entirely new kinds of video games. As a showcase for this power, Nintendo's first N64 game, Super Mario 64, was nothing short of amazing. The characters and environments are all rendered in 3-D in real time, providing a vivid game world.

It was once the military industrial complex that drove technology- the pioneering 3-D work was done for flight and tank simulators. These days, it's the entertainment industry that's on the cutting edge, putting remarkable graphics capabilities into the hands of game designers-and kids.

RESEARCH

2.2 Child Products (1990-2006)

1997

Source: ID July august issue

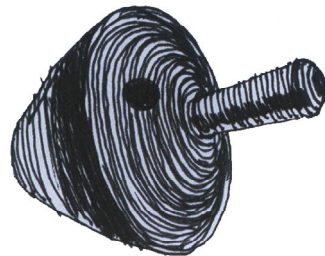
Simple Gifts

Friedrich Froebel, who originated the idea of kindergarten in the 1830's, devised a set of 20 gifts to be given to children in increasing order of complexity. The first gift was a simple crocheted ball that represented both the totality of the universe and the individuality of the objects and people. This was followed by a sphere, cylinder and cube that introduced basic ideas of platonic geometry. he considered it the most profound of the gifts, claiming that to understand it was to understand kindergarten.

Sit and Spin Children's furniture

Zillions of dollars are spent on children's toys but usually it is observed that kids would rather play with pots and pans. this design responds to and legitimizes the youthful propensity to turn mundane artifacts into toys, providing both a functional and purely whimsical object for kids of various ages to claim as their own.

Sit and spin is comprised of four discrete parts that can be variously assembled to construct either a chair or a spinning top. After assembly, younger children can sit and twist (as in their nature) on the stool doing their favorite activity, while, for older children, the product offers a top of outsized proportion that makes spinning extra fun. This piece, with its fine wood finish, is useful, attractive and has a keepsake quality. It reflects how kids actually interact with objects.



RESEARCH

2.2 Child Products (1990-2006)

1997

Source: ID July august issue

FUN SOUND EDUCATION TOY

An educational toy designed to ignite the creativity of four-to-six-year-olds by encouraging them to build their own instruments and create their own music. Fun sound was a resounding success among the jurors, who were taken by "how simple and nice idea it is."

A colourful waist belt holds the various components of the product, which can be put together to make several different instruments. Two interchangeable wheels are included, one with preset tunes, the other offering merely notes of the musical scale. The child begins with the preset wheel and advances onto the scale wheel to create his or her own tunes. The bright and gleaming pieces make the kids interact with and explore it.

Design: Martin Lotti

Materials/Fabrication: High-density polyethylene, recycled polyethylene, injection molding.



RESEARCH



2.2 Child Products (1990-2006)

1997

Source: ID September October issue

DRIVING MISS SPIDER

The relationship between children and bugs has always been complex—a mixture of fear, fascination and affection. Author and illustrator David Kirk has seen these contradictions at work in his young daughter, Violet: “Once a carpenter ant bit her hand,” recalls Kirk. “Then she started screaming more because we killed it.”

Violet's interest in bugs was the inspiration for Kirk's enormously successful series of children's books, *Miss Spider's Tea Party* and *Miss Spider's wedding*, which have captured the fancy of bug-loving children enough to sell over a million copies worldwide. A third book, *Miss Spider's New Car* was released. The Miss Spider phenomenon has become a juggernaut, complete with clothing, toys and even a movie deal.

RESEARCH

2.2 Child Products (1990-2006)

1997

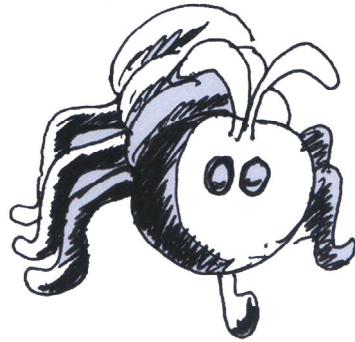
Source: ID November issue

KISS ARMY REACTIVATED

The band that originated shock rock is getting a whole new set of action figures. The dolls are being designed and marketed by Todd Mcfarlane, creator of the popular upstart comic spawn, who insists they be called “action figures-not dolls.

CATCHING COOTIES

In 1948, William H. Schaper, an avid Minnesota angler enamored of bugs, carved the first cootie out of wood while whittling fishing lures. The kid’s game was made by simply updating a Victorian parlor Game, and when he introduced the first set in 1949.



RESEARCH



2.2 Child Products (1990-2006)

1997

Source: ID November issue

EXTREME MACHINES

There is no Japanese superman. Nor a Japanese Batman, Daredevil or Spiderman. Perhaps it was Japan's defeat in world war II that explains why the Japanese don't build their heroes from humans, or even super humans. Instead they look to machines: Japans great postwar, pop culture heroes are robots.

Though mechanical robots first appeared in Czech Karl Capek's play Romulin's Universal Robots in 1923, no culture has embraced the robot as thoroughly as the Japanese. From Gigantor to Voltron, Transformers to Gunbuster, Japanese comic-book illustrators, animators and toy designers have shown a fondness for monumental, Statue of Liberty-sized, metal-and titanium golems that employ an array of fanciful weaponry.yet, inherent to the concept of endowing a mechanical creature with human-like potential is the chance that the soulless robot will develop a will of its own, pull a Frankenstein or a Hal and turn on its creators.

In order to avoid such possibilities, Yoshiyuki Tomino and Kunio Ogawara, director and designer, respectively, of the movie Mobile Suit Gundam, put soul into the machine. In their 1979 animated film, an overpopulated earth establishes a series of space colonies. When a rebel space colony attacks our planet, the earthlings fight back with a series of Mobile Suit Gundams-vast, impenetrable, four -story, 60-ton robotic "suits" powered by humans within the Gundam's armored chest cavities. The films success prompted Japanese toy company bandai to produce an army of snap-together robot kits and action figures that represent not soulless buckets of bolts but high-tech extensions of noble human warriors.

RESEARCH

2.2 Child Products (1990-2006)

1999

Source: ID May issue

KIDS STUFF

With scarcely a recognizable modernist icon in sight, the curators and designers responsible for “Design Worlds,” now on view at the Children’s Museum/Museo de los Ninos in san diego have conceived an exhibition that emphatically presents design as a verb. To this end the leaf blower, the farming of organic cotton and the U.S. Mexican border are among the surprising examples explored by designers and artists invited to introduce children to the subject of design.

The key to engaging children lies in action, and “Design Worlds” offers ample opportunity for young visitors to engage in actual design activities, be then physical, conceptual or some combination of the two. For instance furniture designer David Frobes’s contribution, “ChairBoatNiks,” presents an assortment of threaded wooden spindles and bases shaped variously like surfboards and potato chips. Children are invited to combine these elements to create objects that suggests furniture but which may just as easily be cars, forts or sculpture.

Lisa krohn’s “Design-o-Mat” presents alluring consumer products with a sly invitation to consider aspects of their conception, fabrication and use. Each display is accompanied by a dial with graphic icons that signify characteristics of the object: Is it mechanical or electrical? used by an individual or a group? conceived as a sort of designer’s Skinner Box, It rewards the viewer with a playing card depicting a given object when the icons are correctly aligned on the dial.

RESEARCH

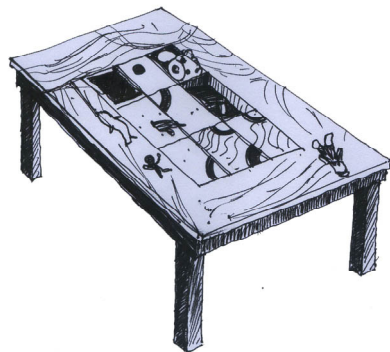
2.2 Child Products (1990-2006)

1999

Source: ID June issue

GOORU EDUCATIONAL SYSTEM

The concept computer has taken many forms in recent years- wearable, portable, invisible-but few have been as simultaneously charming and ambitious as Gooru a system for elementary-school children. Springing from the trend that has children more of their time in school and parents working longer days, this concept for customized learning introduces a responsive multimedia toolkit designed to help teachers and parents keep track of child's progress. Gooru consists of two main parts: a wired backpack with a removable flexible LCD screen and the "Gooball," a translucent communication device with a built-in two way camera. The Gooru can be worn , using a three- point harness, or attached to the backpacks screen-which in turn can be clipped onto a flexible articulating stand, allowing the child to adopt a variety of learning "positions"



TRINCA INTERACTIVE TABLE AND STORAGE UNIT

RESEARCH

2.2 Child Products (1990-2006)

2001

Source: ID April issue

TOY STORY

A look at four decades of classic toy design.

Every year , thousands of new toy designs are introduced into the marketplace. Of those, only a handful will become part of the collective consciousness. These classics help define the childhood memories of entire generations. And some-like the etch a Sketch and Barbie-become full fledged cultural icons.

1950s

Magic 8 Ball

The psychic powers of the Magic 8 Ball come from an icosahedron-a 20-faced polyhedron-that floats inside a cylinder of blue liquid. If you are questioning fate, this tongue twisting object offers 10 positive answers, five negative ones and five neutral.

Play-Doh

Play-Doh started as a non toxic wall paper cleaner in 1956. the compound creators began marketing this much loved sculpting medium as a toy. Originally it was only available in off-white.

Barbie

The all time best selling version of this iconic doll was totally Hair Barbie which featured hair from the top of her head to her toes is more than 10 million units worldwide.

RESEARCH

2.2 Child Products (1990-2006)

1960s

Etch a Sketch

With exception of slight changes to the knobs. Etch A Sketch has remained virtually the same for 4 years. It was originally called L'Ecran Magique, which means "the magic screen."

G. I. Joe

Breaking the stereotypes that boys don't play with dolls, an 11 ½ inch tall G. I. Joe became the worlds first boys' action figure in 1964.

The game of life

"Goat eats prize orchids! Pay \$3000." That's just one of the fates awaiting you on the squares of this classic game, designed by Reuben Klamer in 1960.

RESEARCH

2.2 Child Products (1990-2006)

1970s

Uno

Uno has been printed in 18 languages and sold in 30 countries. It's considered the most popular card game in the United States.

Atari 2600

Considered state-of-the-art in 1977, the Atari 2600 had a 1.19 megahertz processor and 128 bytes of RAM. It's most fondly remembered for such games as Pac-Man, Frogger and Space Invaders.

Rubiks Cube

Invented in 1974, Rubiks Cube was the brainchild of Erno Rubik, a lecturer in the department of interior design at the academy of Applied Arts and Crafts in Budapest. The genius of the cube lies with interior mechanism, which allows it to remain self contained whole throughout user manipulation.

RESEARCH

2.2 Child Products (1990-2006)

1980s

Nintendo Entertainment system

Nintendo began as a Japanese playing-card company and dates back to 1889. The Nintendo Entertainment System (NES) hit the United States in 1985 with the popular games Duck Hunt and Mario Brothers.

Transformers

Each robot in the popular Transformers line morphed into something else-such as a car, truck or gun-with a few quick moves. A cartoon and comic book featuring the robots helped heighten the line's popularity.

He-Man

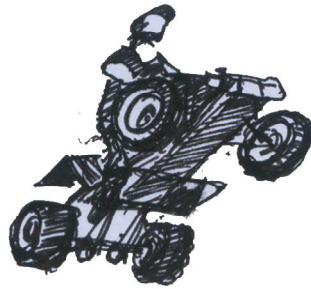
He-Man's good vs. evil battle against villain character Skeletor led to \$400 million in sales in 1985. Unfortunately, the brand's popularity was short-lived, leaving Mattel with warehouses full of unwanted toys.

RESEARCH

2.2 Child Products (1990-2006)

2003

Source: ID February issue



UPS AND DOWNS OF ONLINE GAMES

Multiplayer online games are nothing new to PC community. Even Sega attempted to bring Dreamcast games to the Internet a couple of years ago with its short-lived Sega.net service. But the best new development in videogame systems this century came last fall, when Xbox and Playstation 2 launched online gaming console gamers a chance to compete in tournaments, build massive multiplayer perpetual worlds or enjoy head-to-head combat against an opponent from the other side of the globe, just like their Pc gaming counterparts.

But turning the living room into a gaming and chat room opens the door for videogaming's worst features. Most of the problems online pc gamers already complain about-lack of privacy and a bombardment of push advertisements-will only get worse. With Xbox Live,for example, other subscribers can track what you play and when you play it.

RESEARCH

2.2 Child Products (1990-2006)

2003

Source: ID April issue

TRUCKKIDS

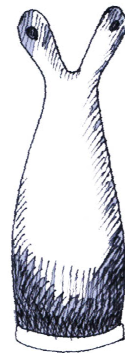
Truckkids, a new line of children's furniture from New York-based Truck, comprises the friendStool, X-Table, X-Chair and RockinChair. Designer Jennifer Carpenter says she fashioned the pieces so kids can build the furniture themselves. All the pieces are powder coated composite wood, which has no VOCs in the finishing process.

2003

Source: ID May issue

CANDELOO

Candeloo! Vessel's portable night light for kids, is a pair of 6 inch-tall rechargeable lights that glow or pulse. The lights turn on when pulled from their base and start to recharge once they are put back. Made without exposed electrical contacts, the polycarbonate lamps are available in green and blue or fuschia and orange; and orange;



RESEARCH

2.2 Child Products (1990-2006)

2003

Source: ID June issue

BESPOKE

“BESPOKE” by Martin Bone, exploits cellulose’s malleability with eyewear that can be customized to fit the buyer’s head. Cellulose is an expensive, high-end plastic. Extruded as a plate, shaped with heat it takes on certain irregularities. As a result, objects made with cellulose tend to feel personal and handmade.”

Bespoke prototypes a new eyewear buying process. This frame, which wraps around the back of the head rather than connecting over the nose, can be individually tailored like a suit or gown. The malleability of cellulose allows a reseller to mold the frame to the wearer’s head. And using a laminating technique unique to cellulose, the designers incorporated layers of copper and wood into the plastic, to show how well cellulose interacts with other materials.



RESEARCH

2.2 Child Products (1990-2006)

2004

Source: ID July August issue

Good Night and Baby Zoo

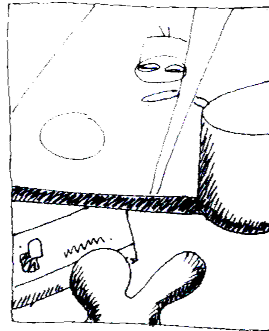
Kids can recompose their rug patterns by moving around this zoological collection's cordless night –light. They can place the LED disk so its pretend water bowl for a cheetah or an egg for an owl, or the light's six inch-wide silvery lid can serve as a bedtime mirror. It is designed by Laurene Leon Boym for Flos, the wool rugs come in 10 different pictograms and the lights can be switched to amber or blue to evoke suns or moons. Kids can make their own designs.

Client: Flos S.P.A.A, Bovezzo, Italy

Design: Boym Partners INC. New York

Materials: Vegetable- dyed wool, injection molded polycarbonate, LED with chrome aluminium cover

Software: Adobe-Illustrator, Graphite



RESEARCH

2.2 Child Products (1990-2006)

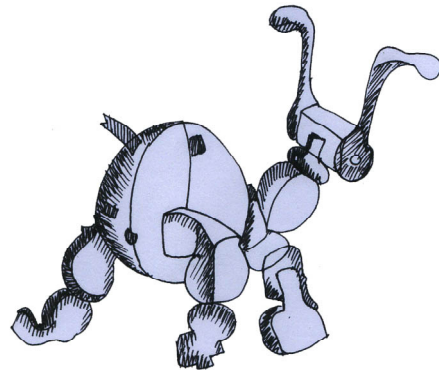
2004

Source: ID September October issue

TOPOBO

Topobo, a 3D constructive assembly system that can record and play back motion, was designed by Hayes Raffle and Amanda Parkes for a Tangible Interfaces course in which students explored the physical embodiments of computational media. The system's ten pieces are linked with Lego Technics connectors. Nine are passive and one has a built-in motor to make a dynamic connection. By snapping together a combination of the colourful, multishaped components, the user constructs biomorphic forms like animals and skeletons. To Program a sequence of behaviors, press a button on the active piece, then push , pull, twist the creature. Switch the action piece to playback mode to watch the motion repeated.

Hayes Raffle and Amanda Parkes Massachusetts Institute of technology Cambridge



RESEARCH

2.2 Child Products (1990-2006)

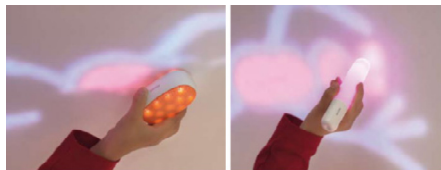
2006

<http://www.simplicityhub.philips.com>

Drag & Draw, PHILIPS

It makes sense for young children to move and explore the world creatively. Not only are children today attracted at an early age to video games and television but, in many of their families, both parents work. Busy parents are often tempted to use television and video games to keep their children occupied while they recuperate at the end of the day. Unfortunately, children who spend too much time in front of a screen are more likely to be overweight because they don't move enough around and stay active, while very young children, denied the opportunity to talk and play with others regularly, will suffer from reduced early brain development. Drawing for development. At age two or three, imagination and exploration play an important role in a child's quest to learn about and understand the world. Toddlers are creative explorers and drawing is one of the many languages they use to 'talk' about their surroundings, both to themselves and to others. They begin by using simple shapes to construct simple objects then, as they get older, their visual system expands and they start to add detail and complexity to drawing. At around age five, depending on the child, a sense of pattern emerges, with houses, trees and families telling familiar stories.

A more natural form of expression than writing, drawing also helps relieve children's frustrations, reduces stress, and encourages thought and communication through the 'telling' of visual stories. It's also a vital factor in stimulating and nurturing creativity.



OBSERVATIONS

3.1 Interactive Products

ID introduced a new section as “INTERACTIVE MEDIA” in their December 1994 (THE 1995 DESIGN SOURCE BOOK) issue as there were huge interactive products yet to come to market.

OBSERVATIONS

3.1 Child Products

In 1997 there was a sudden rise in interactive products for kids. It was very crucial year where stress was given upon the interactive toys and games. The reason behind this was that in this year there was sudden boom in the video game market and it was capturing the toy market. If there was no new development in the toy market then the video game market would certainly get hold of the toy markets. Therefore new kinds of toys that had been developed had new features of interactivity in it; which could amuse, engage and encourage children to play with it.

DESIGN PROBLEM

4.1 Problem Definition

Theme: Air Pollution:

Task: To work on an interactive game-driven installation for children between the ages of 8 -12. The intention is to make them aware/conscious about the theme of 'Air Pollution'. The subject of air pollution may be addressed from any of these angles: causes, effects or remedies (or all, if you are attempting a systemic model)

Design constraints: The installation needs to be

(i) playful

(ii) interactive (ii) sensorially-driven (media-rich), etc.

Operationally, it should be

(iv) multi-user driven. Which means that, several players should be able to play together in a co-operative and collaborative environment.

Playing together would mean playing with each other in physical proximity (on the same computer, since children in India do not own computers individually).

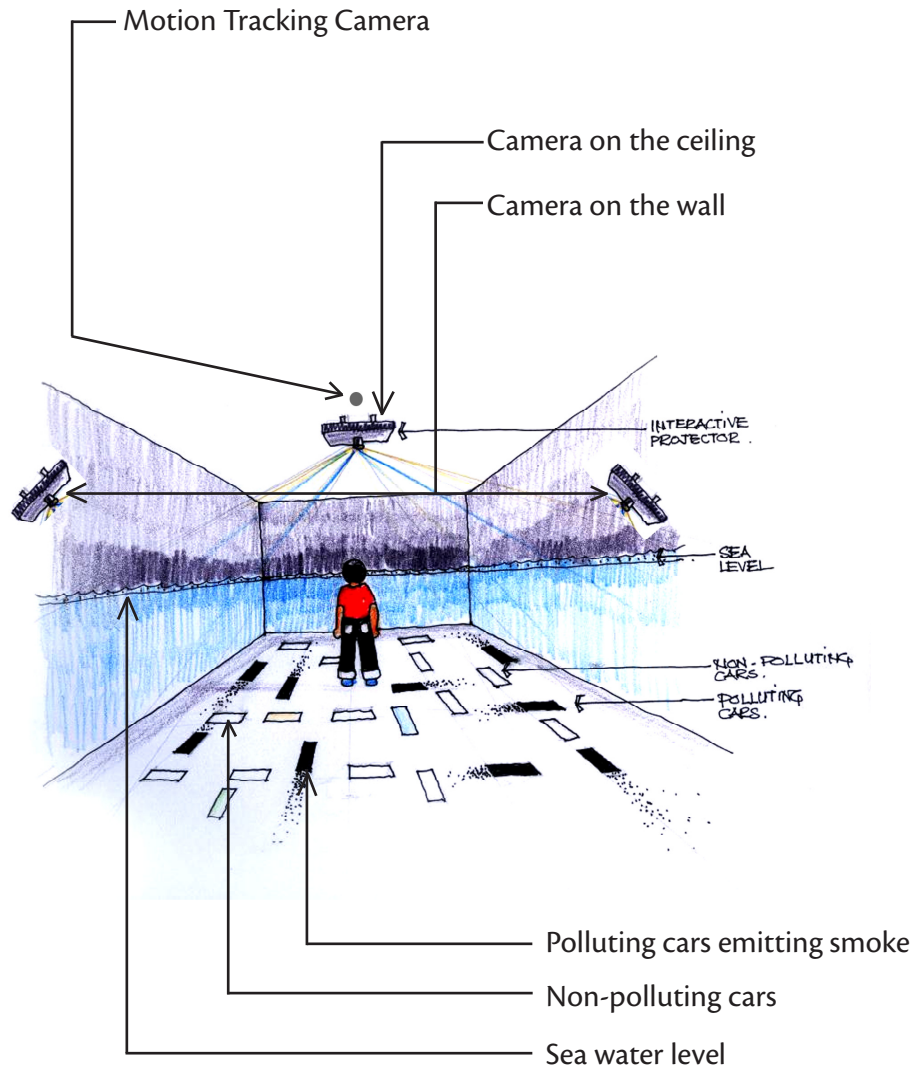
User group bias:

(v) preferably for children who come from middle class backgrounds and lower and hence extremely culturally rooted.

Technology:

Of your choice

DESIGN PROBLEM



4.2 Design Solution

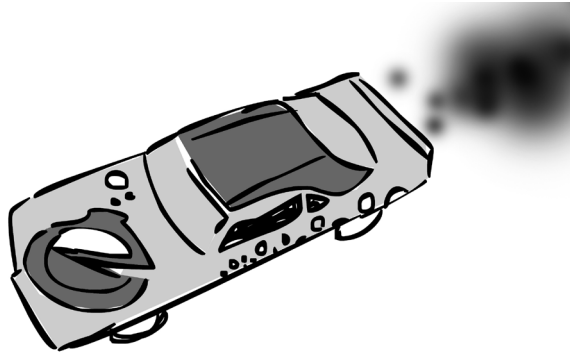
Theme: Air Pollution:

This project is an interactive game-driven installation for children between the ages of 8 to 12. The intention of this game is to make children aware about the hazards of 'Air Pollution'.

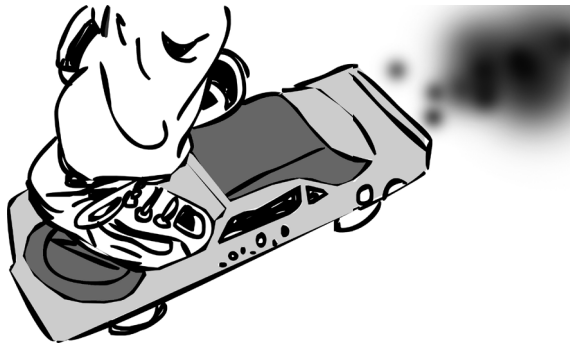
Set up for this installation: Three projectors are fixed at specific points on the wall and ceiling. These projectors project the images of polluting and non-polluting moving cars on the floor and the image of sea water level on the walls.

Scenario: Polluting and non-polluting cars are moving on the floor. The polluting cars are emitting hazardous gases in the environment. The child has to jump on these cars. After the child jumps the car turns into a tree, which symbolizes that one of the solutions for the problem of Air Pollution is to grow more trees. The child wins the game if he is successful in vanishing all the polluting cars from the floor in the given time. If the child is unsuccessful in vanishing a single car the sea water level on the wall rises, which signifies that the pollution is one of the causes of global warming and the ice caps are melting which eventually is the factor for rise in sea water level. The sea water level also rises as the time passes in the game signifying that we need to take action on this problem as soon as possible. If the level of water rises above the height of the child the game is over.

DESIGN PROBLEM



Polluting car emitting smoke.



The Child stamps on the polluting car.



Car vanishes and a tree pops out.

4.2 Design Solution

Theme: Air Pollution:

The advantage of this game is that the kids understand the consequences of Air pollution in a playful and activity based manner. They don't need to read and learn these issues to realize the hazards of air pollution, which can be boring at times.

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