Amae Apparatus

Jonas Loh (German, born 1981) Design Interactions Department (est. 1989) Royal College of Art (UK, est. 1837)

2010
Aluminum, wood, leather, galvanic skin response (GSR) sensor, smoke grenade, switch, and glass tube
13 3/4 x 7 7/8 x 5 1/2» (35 x 20 x 14 cm)

The suppression of feelings in the workplace in the hope of greater professional success, notes designer Jonas Loh, has led to unusually high rates of employee suicide; a particularly troubling statistic comes from France Télécom, where 23 employees ended their lives over the span of 18 months in 2008 and 2009. To counteract this stifling and dangerous social conundrum, Loh created the Amæ Apparatus, which makes a person's feelings explicit. Loh calls it an early-warning system for stressed-out people, soliciting sympathy and allowing assistance to be provided in a timely manner.

Amæ, whose name comes from a subtle Japanese concept describing the desire for attention and care from a person of authority, is worn like a backpack and interprets the wearer's stress levels through a skin sensor; color-coded smoke erupts from a spout in a canister to alert coworkers to various emotional states.

Animal Superpowers: Ant and Giraffe

Chris Woebken (German, born 1980) and Kenichi Okada (Japanese, born 1980) Design Interactions Department (est. 1989) Royal College of Art (UK, est. 1837)

2008
Ant: fiberglass, virtual-reality glasses, and microscopes; giraffe: PVC, mirrors, and voice changer
Ant: gloves: 3 3/4 x 6 5/16 x 8» (9.5 x 16 x 20 cm), helmet: 9 3/8 x 12 3/16 x 7 11/16» (24 x 31 x 19.5 cm); giraffe: 18 1/8 x 8 11/16 x 9 3/8» (46 x 22 x 24 cm)

Animal senses, like our own, have evolved in reaction to specific contexts and survival needs, and they often go above and beyond the limited sensory capacities of humans. Birds, for example, use magnetic fields to determine their migration routes, ants communicate via scent trails, and dogs can sense impending earthquakes. In an effort to make these abilities comprehensible to us, Chris Woebken and Kenichi Okada have designed a series of experiential sensory enhancements for children. The ant apparatus, a helmet with gloves attached, displays the world through an ant's eyes: microscopes in the gloves magnify minuscule surface details to 50 times their regular size and transmit the images to the helmet. The giraffe device raises the wearer's line of sight, simulating for a child the physical perspective of an adult, and also deepens the voice. Although these prototypes were specifically made as responses to the curiosity of children, in a broader sense they present us all with ways to stretch our own limited human interactions with the world.

Avatar Machine

Marc Owens (British, born 1982)

2008
Various materials and electronics
Dimensions variable

An avatar is a digital persona, often experienced from a third-person perspective: the player controls it but simultaneously views it as if hovering a few feet behind. Avatar Machine is a wearable apparatus (including a camera on the back) that simulates the third-person gaming experience in real space, down to the spiky helmet, padded torso, and armored gloves. During tests of Avatar Machine in public locations, Owens observed that some users brought gaming behaviors to real life, taking bigger steps and swinging their arms. This mashing of boundaries between virtual and physical worlds suggests a future path for gaming technologies.

Becoming Animal

Stephen Spyropoulos (Greek and American, born USA 1980) and Theodore Spyropoulos (Greek and American, born USA 1976) of Minimaforms (USA and UK, est. 2002)

2007
Installation with animal masks (Perspex, neoprene, rubber, wood, and LEDs), projections, microphones, speakers, and camera-recognition and custom software

In the interactive performance Becoming Animal, participants are invited to engage with Kerberos, the mythical three-headed gatekeeper of the underworld, and with each other. Players stimulate and communicate with the three heads of the beast, triggering behavior-based interactions and exchanges. Kerberos's three heads respond autonomously, each conveying a range of emotions through gesture, facial expression, and sound. This performance, which bridges the real and the virtual, was developed for the Faster than Sound Festival in Suffolk, England, in 2007.

Call Me, Choke Me

Gunnar Green (German, born 1978) Design Interactions
Department (est. 1989) Royal College of Art (UK, est. 1837)

2008
Leather, aluminum, plastic, and electronics
1 1/2 x 6 1/4 x 5 7/8» (4 x 16 x 15 cm)

This device, a collar designed to be worn around the neck, ties mobile-phone activity to the practice of erotic asphyxiation. With each phone call or text message, whether or not it is picked up or responded to, the collar tightens. The callers and senders are unaware of the game but still part of it. The pleasure and pain of being constantly sought after—normally expressed with frequent neurotic glances at our device screens and by hypocritical and empty complaints about feeling drained—are embodied by Gunnar Green in a sadomasochistic contraption that subtly demonstrates one of the tenets of contemporary interaction. The wearer can loosen the collar at any time by pulling a string.

GlowCap

David Rose (American, born 1967) of Vitality (USA, est. 2004)

2010
ABS
Bottle cap: 4 3/4 x 2 x 2» (12 x 5 x 5 cm); night light: 4 7/8 x 3 3/4 x 2 3/8» (12.5 x 9.5 x 6 cm)
Vitality, USA

Numerous studies tell us that patients are often unreliable about taking medications, both in clinical trials and in the treatment of chronic illness. David Rose has tackled this issue with his GlowCap system, which employs both reminders for the patient and communication with pharmacies and doctors to ensure that prescription medication is taken properly. GlowCaps fit most standard prescription bottles and, once programmed, use light and sound to signal when it is time to take a pill. The GlowCap knows when the pill bottle has been opened and keeps track of the bottle's status via a wireless network.

If the bottle is not opened at prescribed times, the patient receives a reminder by phone. GlowCaps also communicate with pharmacies about medication refills and send regular e-mail updates to family, caregivers, or doctors.

Devices for Mindless Communication

Gerard Ralló (Spanish, born 1984) Design Interactions Department (est. 1989) Royal College of Art (UK, est. 1837)

2010
Acrylic and electronics
Reiterative Communication Aid: 7 x 10 1/4 x 12 5/8» (19 x 26 x 32 cm); Personal Adviser for Reintegration: 8 1/4 x 11 3/8 x 13 3/8» (21 x 29 x 34 cm); Conversation Challenger: display: 3 x 6 3/4 x 3 1/4» (7.5 x 17 x 8.4 cm); device: 3 x 2 5/8 x 3 7/8» (7.5 x 6.6 x 10 cm)

Gerard Ralló imagines what sort of help we will need with communication in the future as certain skills are strengthened by developing technology and others erode. The Reiterative Communication Aid addresses the fact that we would be better off without most of the idle conversations we find ourselves dragged into. The device, worn around the neck and displaying a screen, tracks the wearer's conversations over time; once a back-and-forth pattern is established, the screen provides automatic answers to mundane questions so the wearer does not need to. Conversely, the Personal Adviser for Reintegration preserves the habit of what the designer calls "sporadic, banal conversations with no aim behind them" for future generations who have lost the ability to engage in small talk. It, too, is worn around the neck, with the display screen positioned so the wearer can quickly read prompts for benign topics and tepid questions, thus ensuring the survival of polite conversation without requiring the user to think. The Conversation Challenger embodies the designer's theory that our access to unlimited information will cause us to lose interest in each other as human beings. The device listens to a conversation and offers related content culled from the Internet, forcing a choice between another person and the machine. With it, the designer asks if it is "really possible for someone [to] be more interesting than everything else?"; the Conversation Challenger's answer is generally "no."

Earshell

Key Portilla-Kawamura (Spanish and Japanese, born Spain 1979), Ali Ganjavian (Azerbaijani and Iranian, born Iran 1979), and Pablo Carrascal (Spanish, born 1984) of kawamura-ganjavian (Spain, est. 2006)

2010
Polypropylene
1 1/2 x 3 1/8 x 3 3/4» (3.9 x 8 x 9.4 cm)

"We [have used] earrings as symbols of distinction since time immemorial," the designers of kawamura-ganjavian tell us, "however they are not particularly useful items." In response they have designed the Earshell—a sound-enhancement device that is also an elegant adornment and dramatizes the interest of the listener.
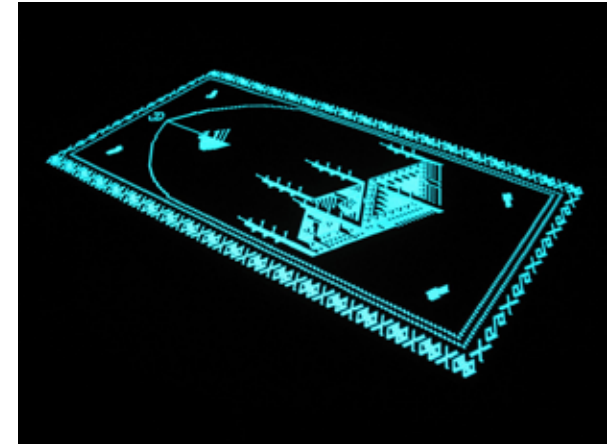
El Sajjadah

Soner Ozenc (Turkish, born 1980) of Soner Ozenc Product Design Studio (UK, est. 2006)

2005
Electroluminescent sheet
27 5/8 x 47 1/4» (70 x 120 cm)

A Muslim's prayer rug ensures that the space for prayer, which takes place five times per day, is clean and separated from other activities. Soner Ozenc has created a rug that points the praying person in the direction of Mecca. He embedded in the rug a compass module that connects with electroluminescent printing on its surface; the carpet pattern grows brighter and brighter as it is turned in the correct direction.
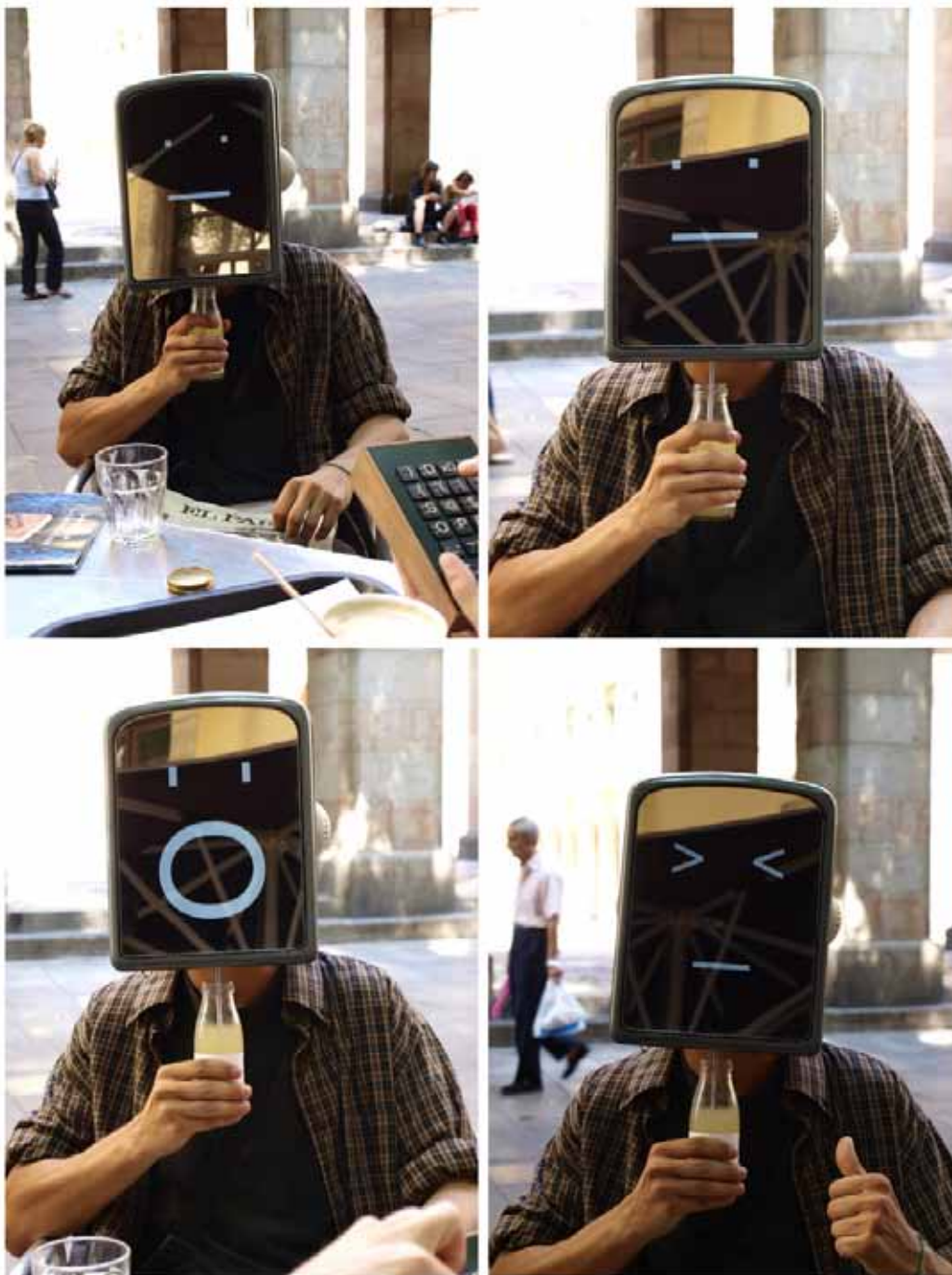
Expressions Dispatcher

Gerard Ralló (Spanish, born 1984) Design Interactions Department (est. 1989) Royal College of Art (UK, est. 1837) 2010

Aluminum, acrylic, foam, fabric, and electronics

helmet: 11 3/4 x 8 7/8 x 12 3/4» (30 x 22.6 x 32.5 cm); remote control: 3 7/8 x 3 1/2 x 1 1/4» (10 x 9 x 3.5 cm)

Gerard Ralló's Expressions Dispatcher puts our reactions to daily situations into the hands of someone else—a life coach of sorts. The device is a two-part system—a helmet equipped with a screen that covers the wearer's face and displays various emoticons, and a remote control device in the hands of an expert who follows the wearer around and has complete power over which emotions are displayed. The responsibility for creating our self-image and how we are perceived is thus passed to an individual who is removed from our immediate emotional state and can analyze an appropriate response.
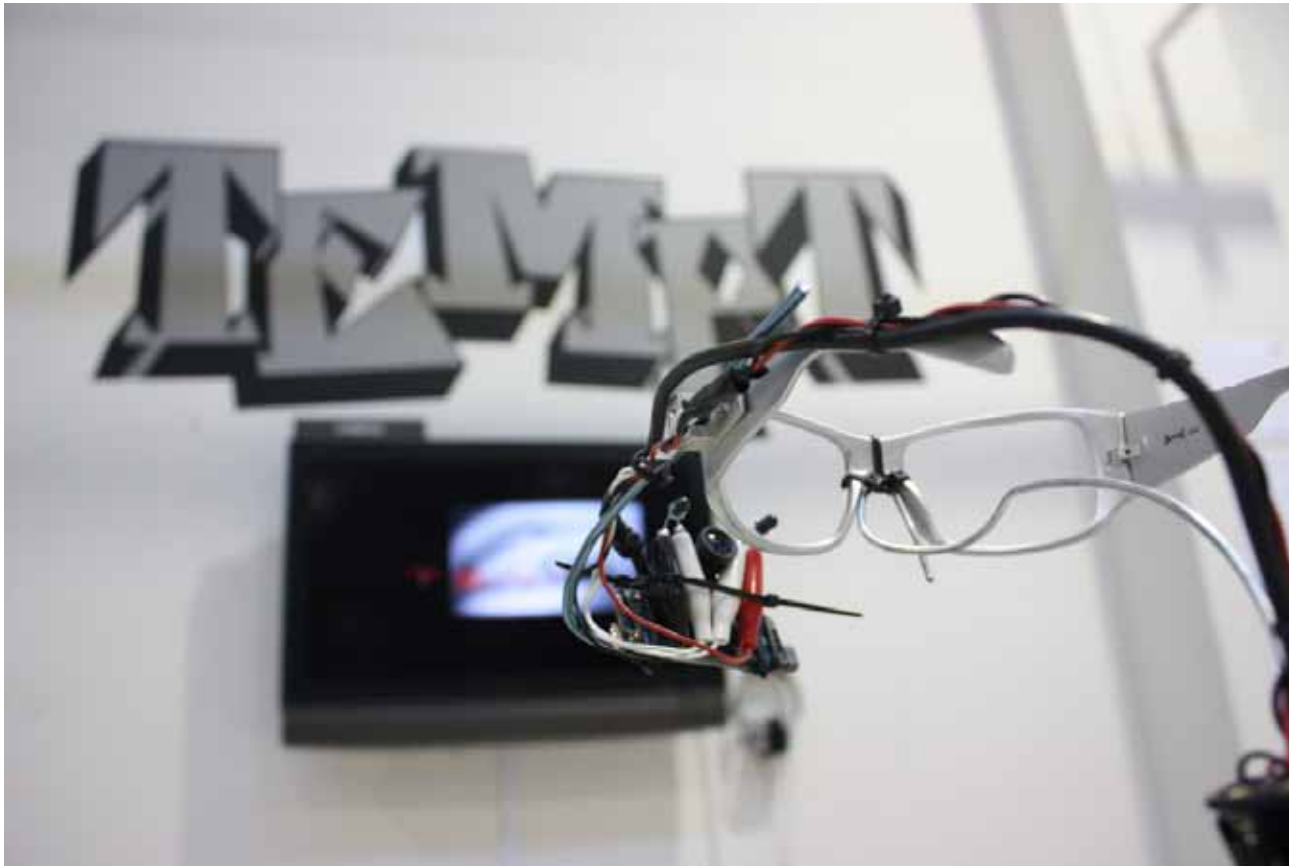
EyeWriter

Zach Lieberman (American, born 1977), James Powderly (American, born 1976), Evan Roth (American, born 1978), Chris Sugrue (American, born 1978), TEMPT1 (American), and Theo Watson (British, born 1981)

2009
openFrameworks and custom software, eyeglasses, PlayStation Eye Camera, IR pass filter, IR LEDs, battery clip, resistor, zip ties, and flexible metal wire
7 3/4 x 5 7/8 x 1 7/8» (20 x 15 x 5 cm)

In 2003 TEMPT1, a Los Angeles–based graffiti artist and activist, was diagnosed with amyotrophic lateral sclerosis (ALS), which soon left him entirely paralyzed except for his eyes. The EyeWriter research project was born as a collaboration among TEMPT1, the members of Free Art & Technology (FAT) lab, the openFrameworks community, and Graffiti Research Lab (GRL), with support from the Ebeling Group production company, the Not Impossible Foundation, and the MFA Design and Technology program at Parsons The New School for Design, New York. The team equipped a pair of inexpensive eyeglasses with eye-tracking technology and custom-developed software that could capture TEMPT1's eye movements. From his hospital room, wirelessly connected to a laptop and laser-tagging apparatus installed in downtown LA, the artist can paint graffiti tags in color, which are then projected at a superhuman scale in real time— so that viewers see the glowing tag as it is created—on buildings. The hardware, software, and assembly instructions are in the public domain, so that the power of these creative technologies is widely available, eventually leading to a network of, as the designers envision, "software developers, hardware hackers, urban projection artists, and ALS patients from around the world who are using local materials and open-source research to creatively connect and make eye art."

Here to there

Adi Marom (2015)

This project was created for the 2015 Tribeca Film Festival's Interactive Playground.

Tribeca Film Festival's Digital and Interactives team invited Second Story to participate in the 2015 TFI Interactive Playground.

The Project was an experiment using wearable technology as a new medium for immersive storytelling.

The idea was to use story and technology to provoke a conversation about the future of storytelling.

We created an environment where festival audience could weave their own narrative experience in a completely non-linear and spatial way. They discovered the story through wearable devices and actors. The actors wore custom helmets (Transmitters) that transmitted the story to the audience. The audience had the freedom to explore the festival space while wearing custom headphones (Receivers). When a the headphones came into proximity with the helmets, parts of the story were revealed. Aided by the choreography of the actors, the audience experienced a non-linear narrative built from their proximity and interactions with the different characters.

The goal with Here to There was to really rethink wearable technology beyond fitness and the Internet of Things and smart homes—to imagine a future of dynamic environments that are responsive to our presence and our location in space.

I leveraged my product design expertise to create visually distinctive wearable devices. Exaggerated bubble shapes redefined the body's silhouette, and the translucent material exposed the enclosed technological components as well as the user's own body. The different form-factors for the Transmitters and the Receivers accented each's purpose. The Transmitters were oversized dome-shaped helmets that acted as beacons signaling a focal point of transmission for participants. The Receivers were oversized headphones emphasizing the act of listening, which is key to the experience. In contrast to how headphones in public space become barriers between us and our surroundings, in Here to There the Receivers were meant to enable the audience to be present and connected to their immediate surroundings and to others in the experience.

The physical design and the experience delighted the crowd and provided plenty of photo ops.

Here to There took social media by storm (with many selfies with the headsets) and the project was prominently featured in the Tribeca Film Festival's "Daily Wrap Up" video.

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Hyperreal Everyday Life

Michiko Nitta (Japanese, born 1978) Design Interactions Department (est. 1989) Royal College of Art (UK, est. 1837)

2006
Headphones, CD player, foam, and electronics
7 7/8 x 5 7/8 x 5 7/8» (20 x 15 x 15 cm)

This device alters the way in which we view our lives, transforming our mundane everyday activities into epic achievements by adding a thrilling sound track and cropping the wearer's vision so that life has the proportions of a movie screen.
http://www.michikonitta.co.uk/3_hyperrealeverydaylife.html

Wifi Dowsing Rod

Mike Thompson (British, born 1981)

2007
Wood and electronics
approx. 18 7/8 x 6 1/8 x 5/8» (48 x 15.5 x 1.5 cm)

The Wifi Dowsing Rod provides comfort to people who may be overwhelmed by current technologies. Mike Thompson has adapted the familiar form of a divining rod—believed in the past to be able to locate underground sources of water— into a tool that seeks out and indicates the strength of the unseen wireless signals that are all around us. Thus a tool of the past is evoked in fulfilling the needs of the present

Short++

Adi Marom (Israeli, born 1974) Interactive Telecommunications Program (est. 1979) Tisch School of the Arts (est. 1965) New York University (USA, est. 1831)

2010
Aluminum, electronics, and Arduino and HTML software
Elevated: 7 x 4 3/4 x 9 1/2» (17.8 x 12 x 24.1 cm)

Designs by Adi Marom and Hans Hemmert explore how daily functions and especially face-to-face communication can change simply by tweaking and tinkering with people's height. Marom's robotic footwear extends and contracts via an iPhone application, so that the wearer becomes taller or shorter to fit various needs and moods— from reaching a higher supermarket shelf to smelling a flower on a tree branch; height thus becomes what the designer calls an "interactive variable."

SMSlingshot

Christian Zöllner (German, born 1981), Patrick Tobias Fischer (German, born 1980), Thilo Hoffmann (German, born 1980), and Sebastian Piatza (German, born 1985) of VR/Urban (Germany, est. 2008)

2009
High frequency radio, Arduino board, laser, batteries, plywood, and ash wood
14 3/16 x 8 5/16 x 1 5/8» (36 x 21 x 4 cm)

The SMSlingshot marries the traditional weapon with digital technology, splattering information onto facades and other surfaces that then serve as public screens. The battery-powered device is a wooden slingshot with a display screen, keypad, and laser. Users can store and type text messages and then release the slingshot to blast them onto surfaces, where they appear within a splash of color and linger as long as the performers decide, and the text is tweeted at the same time. VR/Urban considers the SMSlingshot an intervention against increasingly commercialized urban space, which is thus reclaimed and occupied through virtual tags. The device fuses a prehistoric tool, vibrant urban art, and innovative technology into a product that encourages interaction, information, and empowerment in the city.

Touch Hear

Design Incubation Centre (est. 2006) National University of Singapore (Singapore, est. 1980)

2008
Finger implant: optical characterrecognition system and network transmitter; ear attachment: text-to-speech system and network receiver
Finger implant: 3/8 x 3/8 x 1/8» (1 x 1 x 0.2 cm); ear attachment: 3/16 x 5/16 x 1/8» (0.5 x 0.8 x 0.2 cm)

Looking up unfamiliar words while reading is disruptive, creating a break, however momentary, in narrative flow. The Touch Hear text-recognition dictionary (unfortunately still a concept) renders the task built-in and seamless, requiring only the scanning of a finger implant over a word or phrase to bring up related information, such as meaning and pronunciation, into a small device attached near the ear. Touch Hear explores a way for technology to enhance human capacity in an everyday activity.