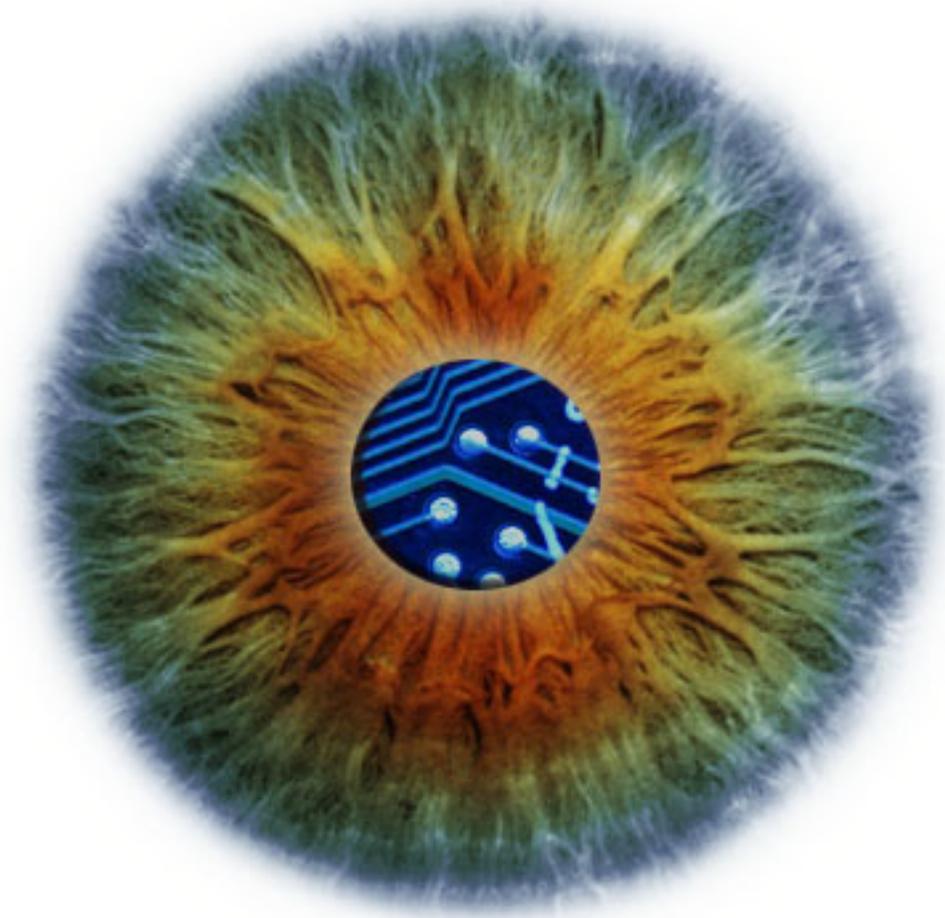


Eyesee Usee

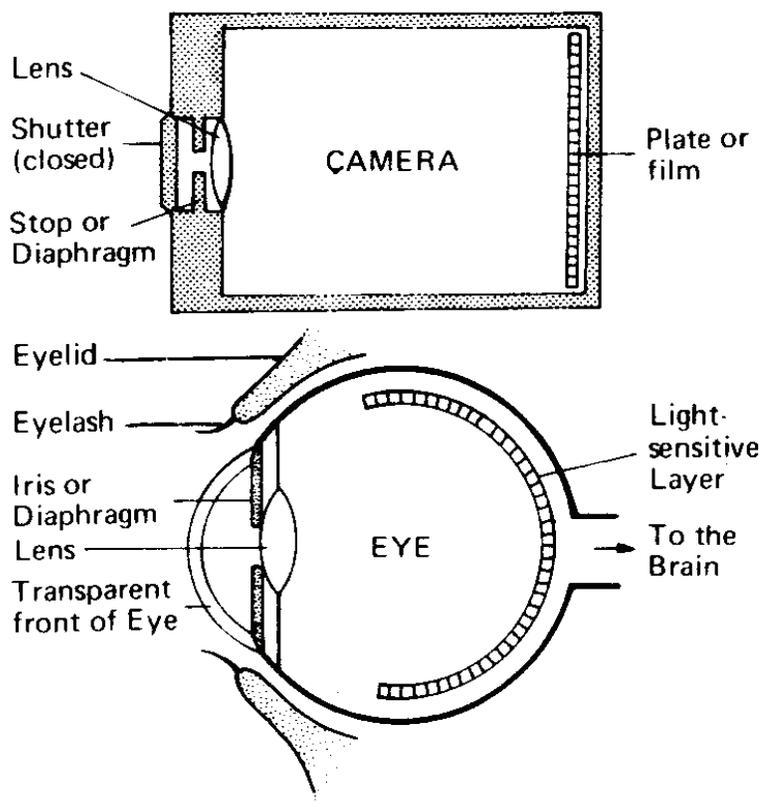
A New Way to See the World:
Through Someone Else



The Technology :

Many technologies exist in this day in age, that replicate human vision. We have the original invention of the camera, and many inventions since such as bionic eyes, virtual video screens inside glasses and much more. Let's start however, with the invention of the camera.

Starting in the late 1020's the idea for camera making was in place, and has been given the name 'Camera Obscura'. The device was a box that had a small opening, that when opened would "project an image of the scene outside upside-down onto a viewing surface."



The eye compared with a camera.

Similarly, camera's that followed had a lens, a shutter and a plate or film onto which the image was displayed or captured. Human eyes work the same way, in that the lens of a camera is like the iris of the eye. The Our eyelids mimic that of a shutter, the back of our eyes manage the amount of light let in, like ISO and our brain is similar to the plate or film.

In more recent technology, artists and scientists have toyed with idea of mixing the two, the human eye, and the camera. Not only does this serve the purpose of utility, helping the blind see, but it opens up an entire rhelm of artistic and creative possibilities.

Bionic eye's are the result of meshing these two rhelms together, and they are currently in the 'eyes' of the public. Recently, in 2009, a one-eyed filmmaker named Rob Spence started collaborating with 'Kosta Grammatidis, John Polanski, Martin Ling, Phil Bowen, and camera firm OmniVision' to create the first, Bionic eye, or in Spence's word, Eyeborg. The eyeborg is a lens, similar, yet thicker than a contact that contains a wireless video camera capable of recording and transmitting a low res video signal to a television screen. An excerpt from an article in IEEE Spectrum entitled, "Eyeborg Bionic Eye Camera Shows Winks and All" by Tim Hornyak, explains this intricate technology:

"The feed from the eye-cam is picked up by a wire antenna that Spence held to his cheek, and relayed to a flatscreen TV in the background. The prototype in the video provides low-res images, but an authentic experience of literally seeing through someone else's perspective. The image is somewhat jerky and overhung by huge eyelashes; a blink throws everything out of whack for a half-second.

Rob Spence demonstrates his bionic camera eye. A wireless camera in a specially designed prosthetic relays a video feed to an antenna that he presses to his cheek. The feed is shown on the screen behind him as a colleague films. Image: Rob Spence



The bionic eye is simply designed, and components are constantly changing. It basically contains a 1.5mm-square, low-res video camera, a small round printed circuit board, video transmitter, and a 3-volt rechargeable Varta microbattery. The components are contained in resealable clear acrylic used in false eyes, but it has two holes for wires to recharge the battery. "I can recharge my eye via USB off my laptop," says Spence."

The creation of this bionic eye is a remarkable step forward in the advancement of technology for human need, and art-sake. Furthermore, another invention that keeps this technology in motion is a more marketed product available for the entertainment of the masses. This technological toy is called the ezVision Video Glasses.

EzVision video glasses are the newest, easiest and cheapest ways to watch videos on a large screen, virtually. "By sticking two tiny LCD screens in front of your eyeballs, the ezVision glasses trick your brain into thinking you're watching a 50-inch screen from about 8.5-feet away. I managed to give these a whirl this week and thought I'd share my experiences. While they definitely give you the sense that you're watching a much larger screen than, say, the tiny one on your iPod, you can't expect the picture quality you'd get from a \$1500+ high def television." (www.technabob.com)



The Device:

With all of these inventions floating continuously in the world of technology and electronics, I propose an invention that joins the many technologies into one, all -purposful creation. Taking the idea of a lens (bionic eye) capable of recording video and transmitting it to a television screen and joining it with the idea of glasses that virtually project an image right in front of the eyes, we create the new hot button topic, ICUC: Eyesees use.

The Eyesees use is a device that is used interactively with two users. Each user puts a contact lens in one eye that is equipped with a video camera and a thin micro screen to display the video footage. The two contacts are wirelessly linked to one another, sending a signal to one another of what is seen by each user. Put simply, User A will be getting video footage of what User B sees, and User B will be getting video footage of what User A sees. (Only in the eye with the contact) Each user still has full vision of the non-contact eye and partial vision of their own environment in the eye fitted with the lens.

The device will still need to have a wireless transmitter which will be the size of a pack of gum that can easily fit into a pocket or wallet. Some transmitters will even be available as watches, allowing the user to track the time elapsed of the video, start, stop and power on or off the device. The screen that displays the image will be microscale, seeing as that human eyes do not focus on large objects so close up. The image will be displayed as full vision, although it will only be a microdot on the contact lens. On a more general note, the video in the contact sends a wireless signal to the transmitter which then sends a signal to the pair of transmitter and contact.

The Exhibition:

The exhibition space will be a stage with two 100" television screens behind the stage. The Eyesees Use will be presented on the main table in front of the screens. One at a time, pairs of interested onlookers will be able to put in the contacts and walk around the space with the other person's vision in their own. Their experience will also be seen by the other people in the space by projecting User A's vision on the TV screen on the right, and User B's vision on the left. Seeing as sharing things that have touched a person's eye is a health hazard, the contact will be soaked in a saline solution after each use, so it can be used again in minutes time.

The Eyesees Use will be able to be experienced at the exhibition site, but will offer pricing and information for home use so consumers can buy the product. It will be fairly expensive on the first wave of production, seeing as this technology has not been created before, and it is the first bionic eye that can be used for recreational use.



The Experience:

With an opportunity to see from the perspective of another human being, numerous options arise of its use. The product could be used for simple education based on perspective, a new way of communicating, a new style of filmmaking, or even to aid the FBI and law enforcement. Imagine, a friend of yours breaks the news that she is having her baby immediately but you are stuck at work. With the Eyesee Usee, you can be witnessing the grand moment through the eye of a friend in the hospital. Since the Eyesee Usee has wireless connectivity, it can wirelessly connect to its partner contact transmitter, as long as there are wireless hotspots available.

The image displayed into the eye will be slightly transparent so the user can still see their own true environment. The image displayed will be a better, more understandable version of what The terminator sees in his bionic eye. Similar to Terminator, the Eyesee Usee can be used in states of undercover investigation by the police or FBI. It would aid in correctly convicting those in our communities by being able to get video footage (undercover) by sending in a "spy" with the Eyesee Usee, or in those cases, Eyespy Uspy.

All around, the Eyesee Usee, can be used in the art world, the technological world, and the community. The Eyesee Usee can do anything the user can think up and that is the beauty of technology, we make it, you use it and transform it.

Citations

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Bionic Eye on Cover: photoshopped by Sarah Hemmert

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