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# Hypercept: Speculating the Visual World Intervened by Digital Media

**Jiabao Li**

Harvard Graduate School of Design  
48 Quincy St.  
Cambridge, MA 02138 USA  
[stephlijiabao@gmail.com](mailto:stephlijiabao@gmail.com)

**Honghao Deng**

Harvard Graduate School of Design  
48 Quincy St.  
Cambridge, MA 02138 USA  
[hdeng@gsd.harvard.edu](mailto:hdeng@gsd.harvard.edu)

**Panagiotis Michalatos**

Harvard Graduate School of Design  
48 Quincy St.  
Cambridge, MA 02138 USA  
[pmichala@gsd.harvard.edu](mailto:pmichala@gsd.harvard.edu)

## ABSTRACT

Human perception has long been influenced by technological breakthroughs. An intimate mediation of technology lies in between our direct perceptions and the environment we perceive. Through three extreme ideal types of perceptual machines, this project defamiliarizes and questions the habitual ways in which we interpret, operate, and understand the visual world intervened by digital media. The three machines create: Hyper-sensitive vision – a speculation on social media’s amplification effect and our filtered communication landscape. Hyper-focused vision – an analogue version of the searching behavior on the Internet. Hyper-commoditized vision – monetized vision that meditates on the omnipresent advertisement targeted all over our visual field.

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**Figure 1: Hyper-sensitive vision (top),  
Hyper-focused vision (middle), Hyper-  
commoditized vision (bottom).**

The site of intervention is the visual field in a technologically augmented society. All the three machines have both internal state and external signal.

## KEYWORDS

Wearables; Speculative Design; Augmented Reality; Vision; Tactile Art; Soft Robotics

Video 1: <https://youtu.be/L4rbfNRSN7s>



**Figure 2: Viewing American presidential election map with red allergy. Left: expand. Right: shrink.**



**Figure 3: Symptoms: tendency of overreact, politics of anger, filtered communication landscape, severe symptoms may include total separation and isolation from the red world.**

## HYPERALLERGIC VISION SYNDROME

The modern society has observed an increase in allergies and intolerances. Hypersensitivities are emerging not only medically but also mentally. Technology has this mutual reinforcement effect that people tend to become less tolerant because they interact even less with people who have different backgrounds and opinions just because of the structure of the Internet's ability to connect selectively and to filter information. Digital media as mediator reinforce people's tendency of overreacting through viral spread of information and amplification of opinions, making us hypersensitive to our social-political environment. Similar to patterns of intolerance to signals that we see with our immune system, we also see with our mental responses to our environment, to mental stimulation, and to the distribution of the sensible. Under the current social-political media condition, we device more and more structures in order to aggressively filter this environment both in terms of digital media and in terms of physical interactions like what we eat. By creating an artificial allergy to redness, this machine manifests the nonsensical hypersensitivity devised by digital media.

The helmet can be worn in two modes: nocebo mode and placebo mode. In nocebo mode, the helmet is a machine that gives you the experience of sensory hyper allergy. Whenever you are exposed to red, the red expands in your visual field. This effect is similar to social media amplification: digital media has this effect, when you are looking into something that bothers you, you tend to find other people that share the same emotion, and then you exchange messages, memes, photos, and become more and more angry. That's why we are living in the politics of anger. People tend to find like-minded people; thus, a trivial issue get amplified and becomes intolerable. In placebo mode, the helmet becomes an artificial cure to this allergic. Whenever one encounters red, the red shrinks. This is similar to the filtered communication landscape caused by digital media, where we can unfollow the people with different opinions, and remove them completely from our communication channel.

Overtime, this allergy becomes a form of identity. What people are allergic or intolerant to may be totally nonsensical, or do not have a scientific base, like the gluten free diet, or intolerance to certain political views. This kind of hyper allergenic environment undermines social interaction. Everyday life becomes so intolerable, because there are so many signals that cause extreme reactions. People end up in a green room where everything is green, to isolate themselves from the red world. Everybody else in the room has the same allergy. This intolerance causes them to congregate

**Figure 4: The front part of the helmet contains a first surface mirror, Fresnel lens, and a see-through mirror. With a phone in front, the lenses create an augmented reality experience.**

**Video 2:** <https://youtu.be/IOEvmTMtyHI>

with like-minded people to try to make everything agreeable. In fact, there are many rooms in the world, some are totally red, and some are entirely green. They are completely separated and the people inside one room never cross path with the other. Human communities become hyper fragmented and separated, they cannot find channels of communication between each other.

### TACTILE VISION

Vision works well when we have an overview of the total system, but the way we search in digital media is through little steps, from link to link — a tactile experience as we feel the landscape. We can never see it as a whole because it's not a continuous space. Instead, we look through a pinhole and build up everything without an overview. This searching function enables us to reduce the amount of chance and encounters, so we can just directly search for something in an extremely focused way and filter out everything else. This wearable is the extreme version of us possessing only one sense for one thing. With a pneumatic system made of silicon that reacts to the sensing of light in front of both eyes, the wearer gains stereovision to distinguish directions for navigating in space. Depriving all other sensory experiences and leaving only one signal channel, this hyper-narrow, focused, and filtered vision is an analog version of the searching behavior on the Internet.

When surfing the Internet, there are two modes of being there: one is wondering around, which happens a lot at the beginning of the Internet. One can easily get lost in the vast landscape of information. As media becomes more efficient in delivering information, it gives us the tool — searching — to limit this wondering, hence we become more focused and targeted.

The anglerfish lives in what is easily Earth's most inhospitable habitat: the lonely, lightless bottom of the sea. They have a piece of dorsal spine tipped with a lure of luminous flesh that protrudes above their mouths like a fishing pole, which lures the prey close enough for the anglerfish to devour them whole. Similar to the predation behavior of the anglerfish, the high intensity light sprouting from the middle of the mask is a cue, or a lure, for others to find them in total darkness. Light, the single signal here, is a communication channel and a trap. Only responding to single stimuli may be an efficient way to find things but may also be a very easy way to get trapped or fooled.

**Figure 5: Searching for light with tactile vision.**

**Figure 6: A pneumatic system made with elastomer that inflates/deflates in various speeds according to the intensity of light.**



**Figure 7: The eye is a surface, a map, a landscape, an agency to convey the inner status of oneself.**

**Figure 8: On each side of the eye is a photodiode and a pneumatic system made with elastomer. The mask breathes gently when light is far away and rapidly when light gets closer. Like our eyes, the distance in between the two sensors forms a stereovision. Thus, the location and depth of the upcoming light can be determined.**

**Video 3:** <https://youtu.be/5zrxAmf8rc>



**Figure 9:** The reflective mirror reflects the environment. You become what you see.

**Figure 10:** In make money mode, advertisements fill everywhere. You can earn money by looking at these advertisements. At the same time, your eyes languish.

**Figure 11:** In spend money mode, advertisements disappear, and money drops accordingly. You have commercial-free time until the money drops to zero so that you can contemplate the world. Your eyes are refreshed.

Similar to searching, when you are only interested in one thing and only looking for it, you lose the capacity to see things in context to make more informed decisions. Like moth into flame, this hyper specialized vision, with light as the only stimuli, is very efficient, but also very easy to be tricked.

Responses from people trying to find each other with this tactile stereovision: “You really have to move in space to achieve the incremental understanding of what is your relationship to the stimuli you respond to.” “The tactility of the elastomer and the fuzzy light kind of invite a sensory intimacy and eroticize the human relation to reality.”

## COMMODITIZED VISION

“There are ceaseless bombardments of advertising nowadays. Images are converted into endless commodities manufactured to postpone boredom; humans in turn are commoditized. [1]” “From television to newspapers, from advertising to all sorts of mercantile epiphanies, our society is characterized by a cancerous growth of vision, measuring everything by its ability to show or be shown. [2]” The commodification of the visual field requires observers to rapidly consume visual information. The downside is an extreme information overload packed into the visual field to optimize each second. It prevents us from any kind of contemplative relationship to the world. The meditative relationship of what we observe is no longer possible; everything has an overlay of commercial information trying to extract value from us. The visual field is a commodity with real estate value. By creating a tension between meditative and consumptive state, this machine contemplates how augmenting the visual field with new technology can affect our relationship with the world.

This perceptual machine has two modes: Make Money mode and Spend Money mode. The gradient of the two modes are not equal. It takes more time to make money than to spend money, forcing you to look at advertisements longer to have a more time of freedom. You have to manage your time in the world between looking at what you want and what makes money. Everyday activity becomes hampered by the necessity to convert vision into a moneymaking enterprise. Unfortunately, even when you have the ability to do these activities, you have to do it in a rush, because you don’t have enough capitals.

Once the technology is able to colonize the site itself, we have no choice anymore. More efficient viewer becomes more efficient labor. Like Juhani said: “Perhaps, freed of the implicit desire of the eye for control and power, it is precisely the unfocused vision of our time that is again capable of opening up new realms of vision and thought... The technological extensions of the senses have until now reinforced the primacy of vision, but the new technologies may also help the body to dethrone the disinterested gaze of the disincarnate Cartesian spectator. [1]”

## REFERENCES

- [1] Juhani Pallasmaa. 1996. *Eyes of the Skin*. Academy Editions, London.
- [2] Michel de Certeau, 1988. *The Practice of Everyday Life*. University of California Press, Berkeley.