A Dystopian Preview of How Visualization will Adapt to the Split of Society in ”Have” and ”Have-Not”

Philippe Goffin, and Pascal Goffin

Abstract—We are writing the year 2100, due to excessive usage of monitors human eye capability has dramatically diminished and the ability to speak has vanished. Humans are wearing digital glasses to see the world and get predictive information, and are communicating through instant thought messaging captured by neuro-captors. This evolution has plunged our society as we know it into a have and have-not society where the rich can chose what they want to see and the poor are submerged and flooded with biased information with the sole goal of making the rich richer and the poor poorer.

Index Terms—Dystopia, digital glasses, walls as displays, society change.

It is the year 2100, the excessive usage of displays like desktop computers, smartphones, tablets and smartwatches in daily life caused a generalized decline of the human eye capability, all people are wearing glasses, in fact digital glasses. Now, this may sound awesome to geeks and tech gurus, since it will introduce ubiquitous visualizations. Whenever information is visualized it will be projected onto the digital glasses. The visualizations will use the latest breakthrough in information visualization, like aggregated and small-scale visualization, as there is not a whole lot of space available on digital glasses. In case the human needs more space the visualizations can be off-loaded on to any flat surfaces in vicinity by a simple touch gestures. This is possible because the materials used for the walls can sense touch gestures and act as a display of any size needed, only limited by the size of the wall itself. The digital glasses act as an interface between the wall and the human. However, there is also a dark side to these ubiquitous visualizations as they will lead to a systematic global brain-wash.

The digital glasses will be two-ways, reacting on direct neuro-input from the user like providing information on his current thoughts, but also recognizing the objects the user is looking at as well as his intentions. This two-way communication allows to blend in predictive context information onto the glasses. Of course this information will not be neutral, but tempered by marketing measures motivated to rise sales number of the big world-dominating corporations.

At the same time as the technology has evolved the society has also evolved. There are the have persons who possess wealth and higher education. Opposite to that we have the have-not persons who only have the minimum to survive and through that only have basic education.

Lets go back to the technology side and its predictive nature. Imagine as an example, a have person that is looking at an empty soda can in a park. This person will get the option to choose from information as diverse as the companys stock exchange value or the composition of the soda and its effect on human health. Opposed to that, the have-not person will for example get the following context informations driven solely by marketing and the intention of making money: This soda can was bought at McBurger. The next McBurger is 15 meters from here. Today the Super Whopper Burger is only 10$ with this soda for free. This split in the society is made possible because have people can buy glasses apps that update the basic functionality of the digital glasses which is providing information and visualizing it. These advanced glasses apps cost a lot of money and provide features as diverse as filtering of content depending on given criteria or aggregating the data to provide a better overview and through that give the means to let the person decide on what he wants.

Due to the constant access to a display other features characterizing todays human being will evolve. The most significant being the interaction between humans. The speaking knowledge will vanish, being replaced by continuous instant messaging, not typed but thought and captured using neuro-captors on the head. Mood, feelings and desires will be captured by wearable sensors measuring data points as diverse as the blood pressure, heartbeat, skin sweat and brain waves. These data points will be analysed, interpreted and finally visualized. The visualization will happen either on the digital glasses or using embedded LEDs in the clothes worn by humans. Again, the ”have” people will be able to buy special apps to visualize specific feelings, like level of anxiety, allowing them to get a very deep view of the opposed persons state of being.

Of course not all will be dark, problems can be instantly solved by thinking about the problem. The neuro-captors of the digital glasses will process this information, deliver search results through the glasses and offer follow-me instructions to solve the problem or offer an option to directly call an expert of the topic to solve the issue.

At this point, we point out that the type of visualizations will not have greatly evolved from 2015 on to now. The big changes will occur in how visualizations are accessed and controlled, from a tactile to a sole neuronal interface, where thinking is sufficient to communicate and instigate the generation of the necessary visualizations.

- *Philippe Goffin is with ETH Zurich. E-mail: philippe.goffin@ethz.ch.*
- *Pascal Goffin is with Inria. E-mail: pascal.goffin@inria.fr.*