Synopsis – Biometric Recognition

Introduction

Biometric recognition is seeping into an increasing amount of technology and through this expansion becoming an integrate part of our lives. Our past exposure to biometric recognition range from watching an action hero steal the eye of the villain to gain access to his secret base and stop Armageddon, to watching Sherlock Holmes-type detectives dust off fingerprints and thereby catch the culprit. Both scenarios are dramatic and thereby very opposite our present day use of biometric recognition. Most of us, in western society, use biometric recognition on a day to day basis simply as a tool of convenience. This daily use of biometric recognition creates a situation that theorists Boaz Levin and Vera Tollman describes as the individuals "digital identity and physical body become closely entangled". (Levin, B. & Tollman, V.) Clearly our perception as a society of biometric recognition has shifted, but why has it shifted this way? In a world where privacy and data logging are topics often discussed in mainstream media and cases like the Cambridge Analytica scandal receive huge media coverage, the controversial sides of biometric recognition seems to have gone under the radar. One could imagine someone criticizing google or amazon for logging data and in the same moment unlock their phone by registering their fingerprint without seeing the paradox in this combination. In this paper I will explore why we see this absence of critical thinking regarding biometric recognition and discuss what consequences biometric recognition might have for human computer interaction.

Defining biometric recognition

To begin this exploration, I will summarize the history of biometric recognition for the reader, since I believe this can help to understand how the public opinion on biometric recognition has evolved and how events or media have influenced this evolution. To explore this subject, I have found the book "Biometric Recognition: Challenges and opportunities" which was created by the National Research Council. Using this text will require critical thinking since it is obvious that a book written by the National Research Council will contain a certain bias. This text also contains a very thorough walkthrough of the technical aspect of biometric recognition, which I will use to

compare the actual possibilities of biometric recognition to the common perception of its functionality.

Issues of Security

One of the most common misconceptions regarding biometric recognition is that it has an infallible level of security. This might seem like a somewhat technical matter, but it has great consequences for how we use it and how we perceive it. The common perception of biometric recognition is that it is checking whether or not the user of the device is you, but in reality it is simply checking how similar the scanned material is to you. This distinction becomes important both in regard to security but also to how we see our interaction with these devices. To explore this, I will use the previously mentioned book “Biometric Recognition: Challenges and opportunities” but also other sources like theorist Louise Amoore who works with the borders biometric technologies create.

Authorship

Through interacting with these biometric technologies a large amount of data about the user is created. This collection of data is quite interesting through the lens of authorship, since it raises the question of who owns this data. The pattern of a fingertip is unique and therefore it might seem obvious that the owner should be seen as author, but is this the same after it has been scanned? We would not claim that we own a photo simply because our face was in it, so why is our fingerprint any different? Or is it a question of ”picture” versus ”scan”? To explore this I will use the classic text ”The Author as Producer” by Walter Benjamin and discuss what it brings to this issue.

Cases

To relate these conceptual thoughts I will try to analyze the effects of biometric recognition is two cases. The first case is regarding Syrian refugees and how they are both registered through biometric fingerprint systems and also have their irises scanned for use in their retrieval of UN

supplies. This case is interesting because it highlights both benefits and challenges with using biometric recognition. Some of these refugees welcome the technology, while others burn off their fingerprints to prevent the authorities from registering them. The other case will be the expanding amount of surveillance in China, where biometric recognition is used to map where individuals go. I am still exploring this case, but I hope that it will provide a perspective on situations where biometric recognition is used on a large scale in a non-emergency situation.

Real-time Streams – Real-life Streams?

Finally I will try to explore more conceptually how biometric recognition affects human computer interaction. To do this I will use the text Real-Time Streams by David Berry since it handles how the web has evolved but also how the perception of the web has evolved. I will then discuss how biometric recognition fits into this evolution and what effects it might have in the further evolution of human computer interaction. On the same note I will discuss how incorporating biometric data in these technologies changes the perception of the technology. In David Berry's text he says:

> ”Importantly, the user is expected to desire the real-time stream, both to be in it, to follow it, and to participate in it, and where the user opts out, the technical devices are being developed to manage this too.”

When he says that the user is expected to want to be in the real-time stream, he probably means to be in it in a mental capacity, but biometric technologies enable this exact kind of ”entering” the real-time stream. Earlier in the text he describes the web as an ecology of data streams, and my thought is that biometric technologies allow the user to add something biological to this digital ecology. This mixture of biology, technology and the user is essentially what this entry will be centered around.

References:

National Research Council, ”Biometric Recognition: Challenges and opportunities”

Amoore, Louise, ”Biometric Borders: Governing mobilities in the war on terror”

Benjamin, Walter, ”The Author as Producer”

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Websites:

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Last checked on the 27/04/18 at https://transmediale.de/content/bunker-face

”UNCHR, IrisGuard to launch EyeCloud to assist refugees with biometric banking”

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