Introduction

It wasn’t me, the computer did it!” Lack of technological knowledge and insight often results in this frequently heard moral objection expressed towards computers, and it is a very inspiring one. The computer has marched in, invaded, influenced and taken over our daily lives faster than anyone could have imagined. People have adapted their way of living to the presence of computers to such an extent, that it is now considered completely normal to use computer generated data as a foundation to base important decisions upon. In fact, the behavioural pattern that people display much resembles indications of obedience. It is plausible that people put blind trust in this computed data overruling rational thinking and/or common sense.

In the 60’s when electronics were introduced, it was assumed that electronic appliances would never be regarded as a legitimate authority for human beings. Nowadays electronics are wide spread, be it driving a car, using the telephone, making dinner with a microwave oven. We think that technological devices, the computer in specific, have evolved beyond the earlier mentioned assumption and can be regarded as a legitimate authority. To test if this hypothesis is correct we have developed an application to see if obedience can be obtained through implementation of Human Computer Interaction Methods.

We want to investigate if a computer can be observed as a legitimate, or even malevolent, authority, and to what extend people obey computer generated data. To be more precise we want to know which elements of human computer interaction, interfacing and usability are of influence when making decisions based on computer generated data. Moreover we want to determine what influence fake data has on the actions and conducts being taken.

Definition & Hypothesis

Definition of Computed Obedience: Willingness to submit to an electronic device, with a predetermined set of instructions, overruling rational thinking.

Note: A deviation should be made to determine if the willingness is either wanted or unwanted. It is interesting if subjects submit to an electronic device that involves some form of personal gain, but it is much more interesting if they willingly obey electronic devices without any form of personal gain present.

Hypothesis:

We assume that people have nowadays become so used to computerized apparatus that they put blind trust in the correctness of the information it provides, affecting their analysis and decision making and commons sense, overruling natural scepticism. Regardless of social, cultural or educational background, we expect the adolescent target group to be more obedient to computer generated data than middle-aged or elderly target group, since they grew up with the computer in their presence.

Example of Computed Obedience

In our perspective GPS based Car Navigation Devices like TomTom are the ultimate example of human willingness to obey computer orders. We simply trust that the data presented by the device is true. Consumer satisfaction research performed by the dutch consumers television program Tros Radar points out that 56% of the participated GPS navigation users indicated that they have previously received faulty directions from their systems.

- 9% got stuck on a dirt road
- 10 % opposite side of the road
- 18% completely lost
- 20 % dead-end road
- 8 % private property

Personal gain & The agentic state

The information provided in the previous paragraph supports our theory that people are generally willing to obey orders assigned by computers as long as it involves a factor of personal gain. In case of the presented example the personal gain would be that a user is directed to the desired location without the hassle of having to study the roadmaps. Obtaining obedience without a form of personal gain present, requires a process referred to in science as ‘shifting into an agentic state’. The philosophy behind this process is that participants are being put in a situation that enables the to relinquish responsibility to a perceived authority and follow his or her orders without regard to their morality. The three rudiments that collectively form the agentic state are pressure, gradation and punishment.

Obedience through interfacing

Sequential process: Repeatedly executing the same assignment several times makes us become experienced with a task quickly. The fast learning curve in combination with the slow increment of the value being withdrawn from the learners account makes us become more obedient to the computer.

Clear indicators:

It’s easier for the participant to keep track of which tasks needs to be fulfilled at a certain moment during the experiment, diverting participants from rational thinking and common sense.

Unclear functionality:

Unclear, bulky functionalities and an overload of unnecessary information, as presented by the withdrawal generator, makes it harder for participant to rationalize about the intents of certain actions.

Computed voice synthesis motivations:

Voice synthesis motivations are being applied to contradict with ones morality.

Loss of identity:

The participant will be addressed by the computer by the role that they comprise within the experiment, namely ‘Teacher’.

Formal use of colors:

Most prominent computer application interfaces use grey and white as base-colors (e.g. Microsoft Office, Adobe CS). The colored items used in these applications emphasize the extra functionalities the program has to offer, but they do not divert attention from the working area.