

The Internet as a labyrinth: a failed cognitive enhancement

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Overview

Functional-augmentative vs. welfarist cognitive enhancement

Information overload and perception/attention

Compulsion and distraction by design

Misinformation and the task of understanding

The Google effect on memory

Conclusions



We **are not suspicious** about the Internet, but only **skeptical** about different claims expressing the capacity of the Internet to **enhance human cognition**.

1.

Cognitive enhancement



Functional-augmentative approach -> something would qualify as an enhancement "insofar as it improves some capacity or function (such as cognition, vision, hearing, alertness) by increasing the ability of the function to do what it normally does" (Earp et al. 2014).

Bostrom & Sandberg (2009), "**the World Wide Web** and e-mail are among **the most powerful kinds of cognitive enhancement** software developed to date"

Persson & Savulescu (2008), "connection of minds and information through **the internet** seem the most realistic means of **substantial cognitive enhancement**"

Allen Buchanan (2014), numeracy, literacy and **computers** are among **the best kinds of cognitive enhancements**

Welfarist approach

Views linking the Internet with cognitive enhancement (functional-augmentative paradigm) are wrong -> shift to welfarist approaches to enhancement

Welfarist stance = "any change in the biology or psychology of a person which increases the chances of leading a good life in the relevant set of circumstances" (Savulescu, Sandberg, and Kahane 2011, 7)

The Internet can improve our well-being by limiting the intake of information we need for a particular task, thus reducing information overload and the potential for distractions.

What is cognition & enhancement?

cognition is the process of organizing and managing information and it includes **acquiring** (perception), **selecting** (attention), **representing** (understanding) and **retaining** (memory) information and using it to guide behavior (reasoning and coordination of motor outputs)

a method of improving the performance of various cognitive subsystems without correcting a pathology of the concerned subsystem

2.

Information Overload

state of affairs where a person is **overwhelmed** by the information useful to her context, leading to a situation where she cannot discern between **reliable** and **unreliable** pieces of data.

FACTORS

an increasing rate of producing new information,
lack of structure of information

the ease of transmission and duplication of information over the Internet

an increase of channels for transmitting information,
contradictions and misinformation in the available data



3.

Compulsion and distraction by design

The contemporary Web is designed to bring about compulsive behaviors (Schulson 2015). Design and engineering are more important than the informational content



THIS
IS A
DISTRACTION

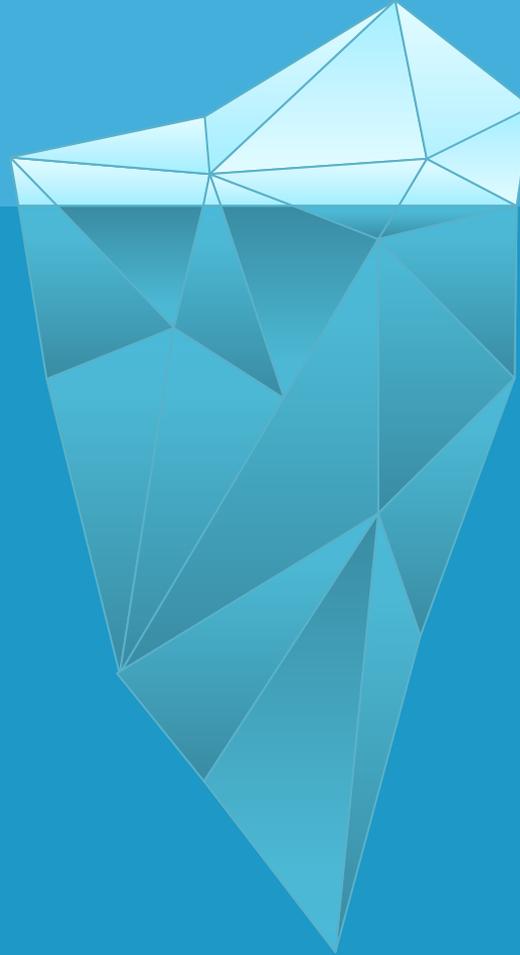
Captology is the design, research, and analysis of interactive computing products (computers, mobile phones, websites, wireless technologies, mobile applications, video games, etc.) **created for the purpose of changing people's attitudes or behaviors**

focus

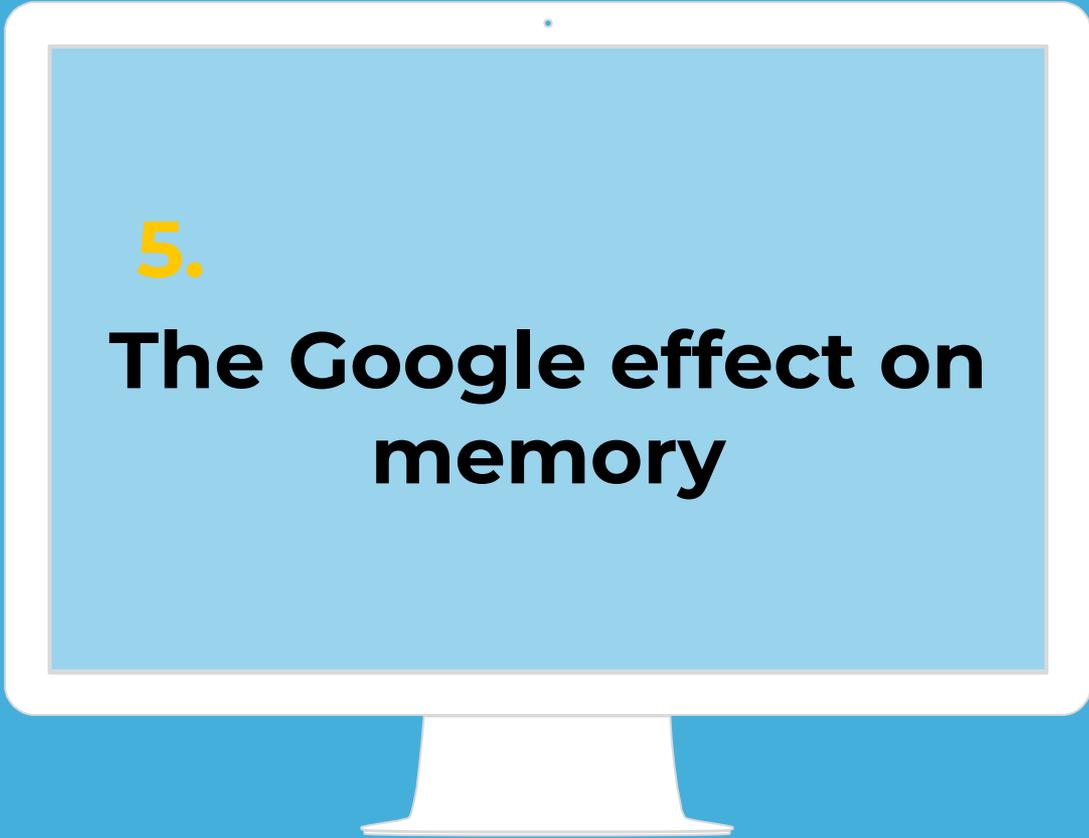
4.

MISINFORMATION

World Economic
Forum Risk
Report (2013) -
misinformation
on online media
is one of the most
threatening
phenomenon
that society has
to deal with.



Because
misinformation
online, there is also a
growing concern that
consumers take the
information at face
value, allowing
anecdotal life stories
to prevail over
scientific-based facts.



5.

The Google effect on memory

The Google effect refers to a tendency of users of storing less information in their biological memory because they know that information is available on the Internet, more precisely they know where to access it.

Conclusions

Our claim is that due to our limited cognitive capacities, and our inability of dealing with vast amount of information, we are unfit to navigate through the information labyrinth that is today's Internet. Thus, we should aim at devising some digital equivalents of Ariadne's thread, more precisely some means of guiding us to the center of the labyrinth, where the potential of enhancement lies, and back out of it.

THANKS!

Any questions?

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