The Impact of Technology and A.I. on our Self-Understanding

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23-09-12 - Talking to robots

Cyborgs

Cyborg is a being that combines both organic and artificial components to enhance its capabilities. Cochlear implants, prosthetic limbs (not all) make a person to be a cyborg. Examples from sci-fi are Terminator, Darth Vader

There is an opinion that people wearing glasses are not considered cyborgs. The term "cyborg" is often reserved for augmentations that involve electronic components. Glasses are relatively simple optical aids that correct or enhance vision without integrating electronic elements directly into the body. So people wearing glasses are not cyborgs :(

Isaac Asimov

Isaac Asimov is a science-fiction writer. He wrote numerous novels, short stories, and essays that had a profound impact on the genre. Moreover, he studied chemistry.

Asimov was from Russian-Jewish family. He was born in Petrovichi, Russia. Then his family immigrated to the United States when he was a young child, and he grew up in Brooklyn, New York. Asimov spoke Yiddish, English and German, but never Russian.

A well-known series by Asimov is the Robot series, which introduced the famous **Three Laws of Robotics**:

1. A robot may not injure a human being or, through inaction, allow a human being to come to harm.

2. A robot must obey the orders given it by human beings except where such orders would conflict with the First Law.

3. A robot must protect its own existence as long as such protection does not conflict with the First or Second Law.

Later, Asimov added a fourth law, but realized it should have precedence over the other three, so it is the **Zeroth Law**:

- A robot may not harm humanity, or, by inaction, allow humanity to come to harm.

Zeerust

The term **zeerust** refers to the datedness of smth in the part, that intended in its time to be futuristic, but becomes outdated as time goes on. It is a thing that was predicte to occur in the future, but did not actually come to fruition in the way they were imagined. The example is flying cars (it was a futuristic prediction in the past; nowadays cars are progressing, but they are far from what was imagined).

The related term is **skeuomorph**. It is a derivative object that retains attributes from earlier iterations of the object, that were necessary in the original but are no longer so. The example is the electric light bulb imitating the shape of candle flames.

23-09-19

The Turing test

The Turing test, proposed by the British mathematician and computer scientist Alan Turing in 1950, is a test of a machine's ability to exhibit human-like intelligence in natural language conversation.

The Turing test has been a fundamental part of the **Loebner Prize competition** (annual competition in AI that awarded prizes to the computer programs considered by the judges to be the most human-like). In the competition, judges engage in text-based conversations with AI chatbots and human participants. They do not know whether they are chatting with a human or a machine.

Eugene Goostman is a chatbot developed in Saint Petersburg in 2001, it is portrayed as a 13-year-old Ukrainian boy. It got the first place in 2021 and the second place in both 2005 and 2008 at the Loebner Prize competition.

René Descartes

René Descartes (1596-1650) is a French philosopher and scientist. He made some contributions to physics. Though his solutions came out to be wrong, his ideas were crucial for further development of physics.

"Meditations on First Philosophy" is one of Descartes' most famous and influential works. The "Meditations" consists of a series of six meditations or reflections, in which Descartes uses the method called **radical doubt** to challenge his beliefs, opinions and knowledge.

The radical doubt leads to the fact that we know nothing, since every thought is constantly in doubt. But we also believe that indisputable thoughts exist. So, in hope of it, the **foundationalism** was developed. Foundationalism holds basic beliefs exist, which are justified without reference to other beliefs, and that nonbasic beliefs must ultimately be justified by basic beliefs.

The phrase **"I think, therefore I am"** first appeared in Descartes' work "Discourse on the Method". Here, thinking is mostly a confirmation of existence, not a cause for it: Descartes can be certain that if he is thinking, then he must exist.

Components of thinking (consciousness, emotions, etc) \todo

Introspection \todo

Introspection = looking inside oneself.

Rationalism and Empiricism

23-09-26

Tacita Dean

Tacita Dean is a British visual artist. Dean's work often explores themes related to memory, time, and place, and she is considered one of the prominent figures in the field of contemporary art.

In 1990s she was famous as a filmmaker. Her works were done in 16mm and 35mm tape, it was the play of light and shadow.

In 2015, the painting "Sunset" was created. It is made in chalk on the blackboard.

Sunset, 2015. Chalk on the blackboard.

LANDSCAPE collection. Chalk on the blackboard

Behaviourism

Descartes thinks you discover your conscious mind by doing introspection. Insights about oneself happen when people ask each other what is going on in their heads and then compare the results. **Behaviorism** focuses on the idea that all behaviors are learned through interaction.

An **inverted spectrum** is a hypothetical concept in philosophy and psychology. It imagines a situation where two people see colors differently, but they don't realize it because they use the same color names.

It's a way to explain the idea that people might experience the world differently, even though they use the same language to describe it.

Behavioral patterns were studied by the Russian psychologist **Ivan Pavlov**. Behavioral patterns include emotional responses, conditioned reflexes (Pavlov's experiment with dogs), habits and routines. This knowledge is used in CBT or Desensitization therapies.

Methodological behaviorism

John B. Watson was a prominent American psychologist. He was a translator of Pavlov.

In his approach, known as **methodological behaviorism**, Watson focused only on observable behavior, ignoring internal mental processes. It worked like a "black box" function converting condition into a response.

One of Watson's most famous and controversial experiments was the **"Little Albert" experiment**. Watson and his collaborator Rosalie Rayner conditioned a toddler to fear a white rat by pairing the rat's presentation with a loud, frightening noise. As a result, Albert started being afraid of objects which remind of the white rat, such as a rabbit and a dog.

This phenomenon was called **Stimulus Generalization**. It occurs when a conditioned response (CR) to a specific conditioned stimulus (CS) also occurs in the presence of similar stimuli.

Radical behaviorism

B.F. Skinner was an influential American behaviorist

Skinner believed that psychology should focus on the study of observable behavior rather than unobservable mental processes. This perspective was consistent with works of John. B. Watson.

What distinguishes Skinner's approach as **radical behaviorism** is his rejection of mentalistic explanations for behavior. He argued that explanations in terms of thoughts, feelings, or mental states were unnecessary and unscientific.

Respondent behaviors are classical responses to stimuli which can be strengthened or weakened by conditioning. **Operant behaviors** are spontaneous behaviors that may or may not become linked to stimuli.

Skinner conducted extensive research on how behavior is shaped by its consequences. Thus, he developed the theory of **operant conditioning**. In operant conditioning, behavior is influenced by the consequences that follow it, whether those consequences are reinforcing (increasing the likelihood of the behavior) or punishing (decreasing the likelihood of the behavior).

Skinner introduced the concept of **reinforcement** of a behavior through reward and punishment. Positive reinforcement = the presentation of a stimulus (reward) for a desired behavior. Negative reinforcement = the removal of an aversive stimulus when the desired behavior occurs (punishment).

Gilbert Ryle is a philosophical behaviorist. His book *The Concept of Mind* argued against the Cartesian dualism. His main belief was that the mind and the body are logically distinct categories.

Descartes believed that the mind is a substance. Ryle said this assumption was a **category mistake**. Terms and the mental should refer not to substance but to processes, or performances, or behaviors.