Quantifying intelligence using aspects of machine learning

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Intelligence has been defined as many different things, and each of these definitions have allowed us to quantify or understand intelligence in a different way. Intelligence for a particular individual, in the past, has been defined to be the knowledge gained, accomplishments, ability to understand other individuals, your community/society, an ability to reason, and much more. The idea of trying to quantify intelligence or measuring intelligence was first introduced by the field of phrenology, and Franz Joseph Gall who is known to be the founder of the field. Franz Joseph Gall wanted to try study the localization of the mental functions in the brain by observing skull sizes, and facial features of people. Even though the field of phrenology wasn't ultimately success, some of the concepts such as attempting to quantify intelligence intrigued the scientific community.

Intelligence and why create a framework for intelligence?

How people have quantified intelligence in the past - IQ tests. Done by powerful individuals for gains (help recruitment for military).

"Artificial Intelligence (AI) was the first large scientific community, established already in the mid 1950s, working on problems that require intelligence to be solved" (Włodzisław, 1).

Quantifying and defining intelligence and frameworks around it became important when

Hawkins is an electrical engineer, and hasn't had any professional experience in neuroscience. His framework approaches the problem from an engineer's perspective as well as

his personal study of the research done on the cerebral cortex to formulate his framework.

Jeff Hawkin's Intelligence

Intelligence in the Machine Learning community with just a mathematical training

References

[1] Hawkins, Jeff, and Sandra Blakeslee, *On Intelligence*. New York: Henry Holt, 2005. Print.

[2] Duch, Włodzisław. "What Is Computational Intelligence and What Could It Become?" Challenges for Computational Intelligence. 2007: n. pag. Print.