AI 빅데이터 MBA과정

데이터 마이닝 2

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Digital Ethics

Digital ethics is the field of study concerned with the way technology is shaping and will shape our political, social, and moral existence.

As Rafael Capurro puts it in his 2009 paper *Digital Ethics*:

> Digital ethics or information ethics in a broader sense deals with the impact of digital Information and Communication Technologies (ICT) on our societies and the environment at large.

The main topics of digital media ethics or digital (information) ethics are intellectual property, privacy, security, information overload, digital divide, gender discrimination, and censorship (Ess, 2009; Himma and Tavani 2008).

Case study

In December 2015, the FBI attained the iPhone of one of the shooters in an ISIS-inspired terrorist attack that killed 14 people in San Bernardino, California. As part of the investigation, the FBI attempted to gain access to the data stored on the phone but was unable to penetrate its encryption software. Lawyers for the Obama administration approached Apple for assistance with unlocking the device, but negotiations soon broke down. The Justice Department then obtained a court order compelling Apple to help the FBI unlock the phone. Apple CEO, Timothy Cook, publicly challenged the court in an open letter, sparking an intense debate over the balance between maintaining national security and protecting user privacy.

Apple and its supporters, including top technology companies such as Google and Facebook, made the case on several fronts that the court order threatened the privacy of all individuals.

- First, according to Apple, the order effectively required the company to write code, violating its First Amendment right to free speech by forcing the company to "say" something it did not want to say. Previous court cases had already established computer code as legally protected speech.
- Second, such a backdoor, once created, could fall into the wrong hands and threaten the privacy of all iPhone owners.
- Finally, it would set a dangerous precedent; law enforcement could repeatedly require businesses such as Apple to assist in criminal investigations, effectively making technology companies an agent of government.

AI Ethics

Hype Cycle for Artificial Intelligence, 2021
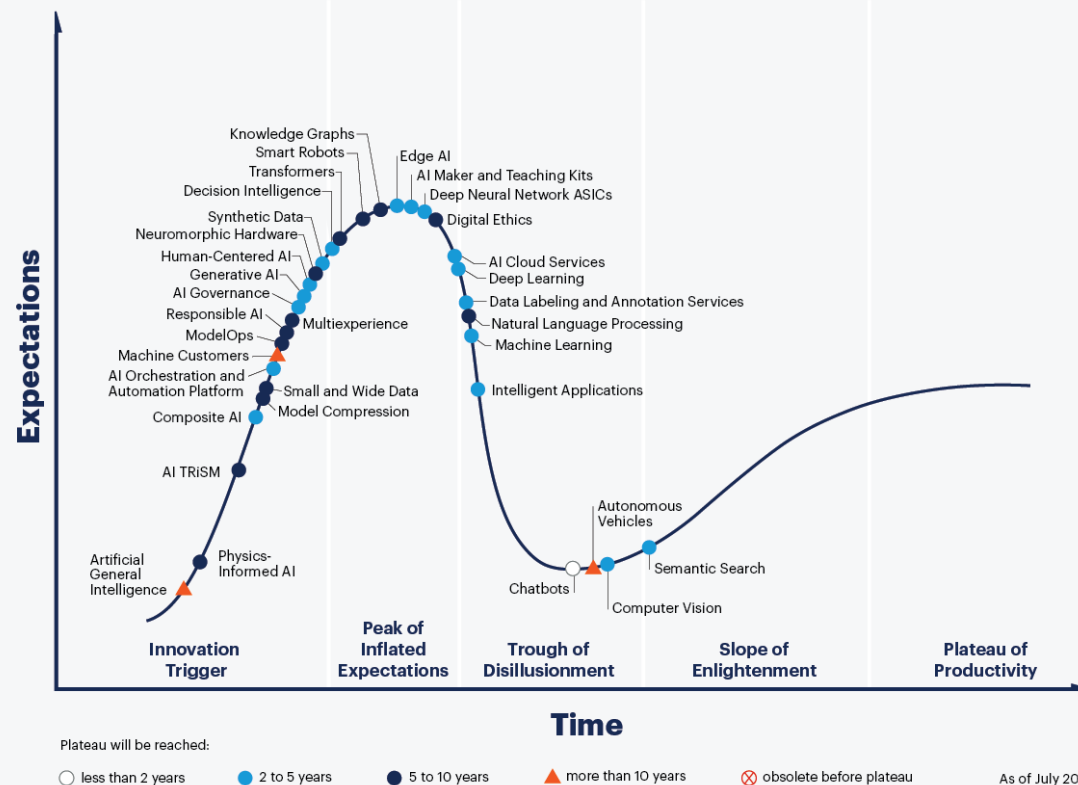
AI Trends

• Operationalizing AI initiatives

• Efficient use of data, models and compute
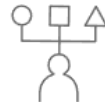
• Responsible AI

• Data for AI

AI Ethics

The purpose of AI is to augment human intelligence

At IBM, we believe AI should make all of us better at our jobs, and that the benefits of the AI era should touch the many, not just the elite few.

Data and insights belong to their creator

IBM clients' data is their data, and their insights are their insights. We believe that government data policies should be fair and equitable and prioritize openness.

Technology must be transparent and explainable

Companies must be clear about who trains their AI systems, what data was used in training and, most importantly, what went into their algorithms' recommendations.

- Machine does not learn.
- Machine does not know its ignorance.

(Biased) **Data (Input)** ⟶

Output ⟶

Biased Algorithms ⟶ (Biased) **Answer**

AI Ethics