

ALGORITHMS AND THEIR ROLE IN
CONTEMPORARY DIGITAL MEDIA BUSINESS

PREDICT THE FUTURE

LESSON 4

“

**If you want to know the
future, look at the past.**

”

Albert Einstein



Let's dig into the timeline!

The democratisation of the Internet

1990



The democratisation of the Internet was favoured by the creation of the first search engines in the late 1990s that sorted out content available on the Web, filtering out what did not meet certain conditions.

At the same time, it was search engines that enabled **both professional and amateur content creators to reach wide audiences** (the 'many-to-many' model) on a global scale, while users gained easy access to various resources scattered over the network.

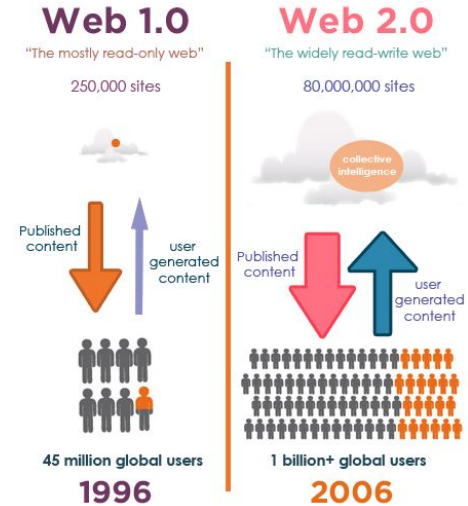
Commercialization


2000



As search engines, websites, free e-mail accounts, and blogs, grew dynamically, technology companies found that as a new, productive space for their investments. And after that the second wave of Internet development called **Web 2.0** or 'app economics and mobile revolution' began. For deeper learning, [see this](#).

1. Commercialization did not give rise to many of the anticipated technical and operational challenges.
2. Entrepreneurs quickly learned that the Internet access business was commercially feasible.
3. This happened for a variety of economic reasons.
4. The academic model of Internet access migrated into commercial operation without any additional new equipment suppliers.
5. The money became the gateway for content.





With high belief of greater democratisation of the network, in reality became something different. Many companies observed a correlation between profit and data, as the data provide specific information about the needs of consumers, customers, started era of **data as a form of capital**.

“At large companies, we sometimes launch products not for the revenue, but for the data. We actually do that quite often [...] and we monetise the data through a different product,” Andrew Ng, co-founder and former director of Google Brain, former vice president at Baidu, as well as co-founder of the educational platform Coursera, in a public speech, given in 2017.

Data as a form of capital

2005





Data integrated in algorithms

2010 and now



As many companies observed that the data collecting is very beneficial, so the collecting, categorization, future prediction and other tasks were entrusted to algorithms.

Main point here is without saying that algorithms are necessary for a device to perform its functions, but they serve to collect, accumulate, categorize data, with the aim of predicting the consumer's next steps, thoughts, wishes.

Algorithms cannot work without data, and raw data is a myth.

In the social world, human-processed and analysed data allows people to exist, interact with or avoid others, or anticipate specific phenomena and make decisions. Data is generally defined as raw, unprocessed and symbolic information related to individual elements of reality. Raw data is a myth and in fact they do not exist, because their value is always dependent on the context.




Datafication is a common phenomenon nowadays, covering various spheres of human life: relationships, location, emotions, interactions, behaviors, political, religious, cultural, sexual preferences, etc.

It is one of the important features of deep mediatisation, i.e. the process of infinite media penetration into our life and social life, on which many business companies and start-ups operating in the field of sharing economy base their business model. In treating data as a specific field of technological colonisation, they contribute to the 'capitalisation of life without limit'.

Datafication

Nowdays





In the social sense, the algorithm does not mean an encrypted procedure that is used to solve the problem by transforming the input data into the desired output, but includes a number of elements:

INFRASTRUCTURE AND COMPUTING NETWORKS, OF WHICH ALGORITHMS ARE A PART



PUBLIC APPLICATION PROGRAMMING INTERFACE PEOPLE WHO DESIGN AND OPERATE THE ALGORITHMS



DATA (AND USERS) ON WHICH THEY OPERATE



INSTITUTIONS THAT PROVIDE THESE SERVICES



AND FINALLY USER BEHAVIOUR, BUSINESS MODELS AND POLICIES


ALL THIS IS PART OF THE AUTHORITARIAN GOVERNANCE



Can we say that now is the Era of Judging Machines?

Sociologist Zeynep Tufekci with this phrase explains the era in what we live. That algorithms are like machines what calculate not just how to quickly sort a database, or perform a mathematical calculation, but to decide what is 'best,' 'relevant,' 'appropriate,' or 'harmful' to users.

We don't need to have any real discussions to know and evaluate people in many areas of life. Everything is judged by those machines, by algorithms.



Algorithms will continue to spread everywhere but if every algorithm suddenly stopped working, it would be the end of the world as we know it.

We have already turned our world over to machine learning and algorithms. The question now is, how to better understand and manage what we have done?





What are the pros and cons?

Algorithms are very efficient. However, sometimes the application of algorithms created with good intentions leads to unintended consequences.

- better understanding of how to make rational decisions (can be used for difficult choices and problems);
- connectivity (connect to what we like, want - people, films, products, etc.)
- manipulation attempts;
- not understanding how algorithms programmed into everyday actions and decisions;
- presence of algorithms in everyday processes is so great and mostly hidden from public view.

For more reading about pros and cons [click here!](#)



References & Links

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