

# DIGITAL TRANSFORMATION JUST AROUND THE CORNER

**Kamil Śliwowski** of the Information Society Development Foundation explains how the current reach and scale of the Internet entail a new stage of civilization – irrespective of what technologies ultimately gain the widest popularity.

## How is the Internet now different from what it was 15 years ago?

**KAMIL ŚLIWOWSKI:** At the moment, 60% of the world's population is connected to the net. Back in 2007, the share of people with Internet access was just over 20%. We may feel like some online services have been with us forever, but most of them are at most barely two decades years old: examples include Wikipedia and Google. The most noticeable changes result from the rise in the number of Internet users over the last 15 years – the Internet is now a mass phenomenon, so it has become commercialized. People often see it not just as a possible alternative to physically going to a public office or going shopping, but actually as their first choice for how to perform such tasks. This process began earlier, but it was sped up by the pandemic. Despite appearances to the contrary, online shopping had not been explored by too many Polish buyers before 2020. According to data from Statistics Poland and the OECD, many people who had never shopped

online before switched permanently to this channel in that period. Even if some have shifted back to offline shopping and other activities, they have retained the digital competencies they acquired. Changing practices have also resulted in a similar, rapid rise in skills in other areas, such as communication, education, and remote working. The ability to study or work a job entirely via a computer connected to the Internet is a very important option for both employees and employers. It may not be possible in every profession, but it has marked a significant cultural shift for many companies. At the same time, many people have noticed that the Internet allows them to do the same work in a completely different way.

## Are there any differences between how various activities were done in the past and how they are being done now?

Here, we're moving on to the second major change I wanted to point out, alongside significantly better



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access to the Internet. We have the same needs as before, but we are satisfying them in a completely different way. People who were present online more than a decade ago could do various things out of their own initiative, on their own. They created the areas where they wanted to share something, such as company websites. Today, there are many ready-made services designed to meet a variety of needs.

There is one more element of online shopping that is very important. Online shopping now involves trading not only in goods and services, but above all in information about us ourselves, our personal data: our shopping preferences, what we buy, how, where, and how often, and our motivations. This represents a completely new commercial value, which creates opportunities for new businesses to emerge.

When I think about online safety, I come to the conclusion that many of today's threats did already exist 15 years ago, but their scale has changed. Ten or more years back, a severe data leak might have involved the data of several thousand, or even several million people. But just few years ago, a leak of data from Facebook affected 800 million users. So a much larger share of the population is now at risk of having their data or virtual money stolen. Dangers related to data or identity theft now affect me as much as my parents, who rarely use the Internet. Whether they like it or not, they are part of this world, too. They don't

„Calm” technologies should be less immersive and less demanding of user attention

have to be active online for some institution to come into possession of their data, which are by definition exposed to a certain risk.

#### **What are the chances that data security will improve in the near future?**

We can currently see two trends related to the mass-scale availability of the Internet. Both the European Union and China are especially active in terms of regulating the Internet “on the fly,” so to speak, especially when it comes to data administration and the development of technologies that affect our lives, health, and daily activities. We have learned how to regulate road traffic, for instance, and so now we are trying to do the same with the Internet. Approaches to solving this problem vary depending on the country. The European Union has pioneered strong data protection using detailed regulations. China has opted for very strong regulation of the tech giants there, in the name of not

only personal data protection, but even public health (for example through limits on the use of online games for underage users). This is very often done by means of party intervention in the activity of specific companies and their executives. In the United States, in turn, discussions are regularly held on the topic of regulation, but they are typically shelved at the last moment for fear that they might hurt leading American businesses.

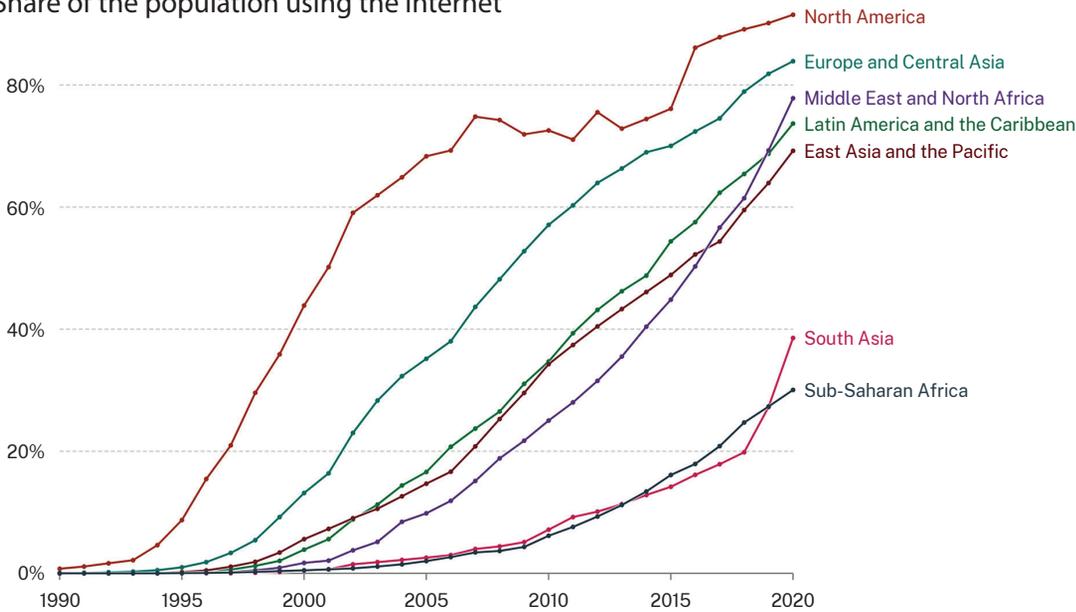
In addition, we must bear in mind that we are entering an era of highly advanced technologies based on artificial intelligence and algorithms designed to make our lives easier. I like to cite attachment to passwords as an example. Most people are convinced that online safety involves having good, strong passwords, and that it is important that we change them regularly and do not share them with others. This rule appears very commonsensical. However, many people are surprised to find out that in a year or two, maybe several years at most, the entire Internet will be trying to eliminate passwords. We will no longer have to remember them or use them to log in. Despite popular belief, they actually offer a very low level of security. We can now see the arrival of solutions related to biometrics and device-based identity verification. We will access various services based on our location or codes (some banks are already using this technology). Major websites such as Google are already moving away from passwords. For reasons related to the gigantic number of Internet users, these changes are necessary and aimed at enhancing security.

#### **What are now the greatest hopes related to the development of the Internet?**

They have been very ambiguous in recent years. Personally speaking, I myself am a supporter of anti-technology trends, consistent with the trend towards what are called “calm” technologies. In a sense, they are a step back, as they are headed in the direction opposite to what e-commerce wants, which is for us to spend more and more time online, use social media more and more often, and so on. The purpose is to use these solutions precisely to exercise our minds, invest in quality relationships and personal development. Importantly, these technologies should be less immersive and should require less user attention. This is now a niche trend, but it stands a chance of expanding very quickly. We should put down our phones more often, and use them only when we need to, when we have an important reason to do so. I'd like technology to improve our health, to help us build our well-being. My hope is that this will happen.

If I were to talk about the business hopes pinned on the Internet in the near future, there is a lot of discussion now about more and more spheres of activity getting shifted online. Examples include the booming popularity of the cryptographic technology of non-fungible tokens, or NFTs. Cryptography can

### Share of the population using the internet

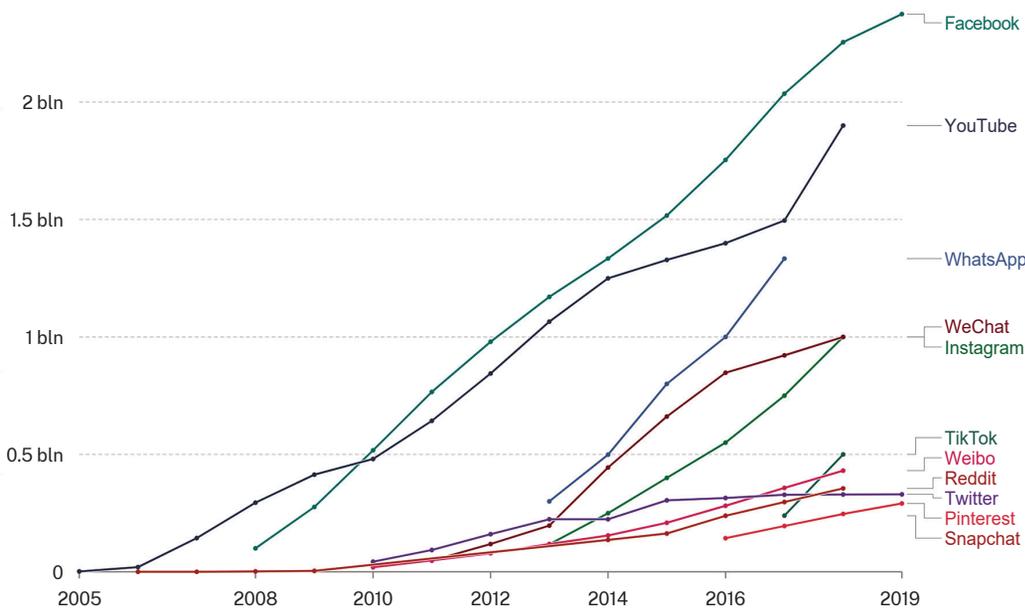


Source: International Telecommunication Union (via World Bank)

OurWorldInData.org/technology-adoption/ • CC BY

Internet users are defined as individuals who have used the Internet in the last three months. This can be done via a computer, a cell phone, a personal digital assistant, digital game television, etc.

### Number of people using social media platforms, 2005–2019



Source: Statista and TNW (2019)

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Facebook measures monthly active users as those who have logged in during the past 30 days

be used not only in the financial sector, but even in the arts. For online creators, this is a risky but also promising path for earning money, for example, thanks to the creation of the collections of purely digital objects. In a nutshell, this is not only about buying shares in digital assets such as art, but also about facilitating the digital certification of documents. It will be possible to move the legal aspects of the ownership of digital assets online more efficiently. This could transform what we think about art and its monetization. This would also change a lot in the law, because we

would stop relying on legal documents and start using technology instead, making it possible for essentially anyone to regulate it. Such an approach now seems abstract and unacceptable. But it could be applied to shares in businesses, real estate, and digital services without the need to involve a brokerage firm. All activity would be managed by online exchanges. This would be less expensive, faster, more democratic (by providing access for more people), and automated.

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