

To the rector, vice-rectors, members of the academic board, deans, and distinguished guests,

I want to thank you from the bottom of my heart for this distinct wonderful honor. The road to today has been made possible by a great deal of luck, “being in the right place at the right time,” and mostly by how the technology has made possible collaboration with a distinguished institution such as The Slovak University of Technology and leading researchers such as Prof. Bielikova.

It is my hope that the honor that you have bestowed to me today will “open the door” to future productive collaboration with your university and address some of the important technological challenges in our mutual areas of interest.

In 1962 Douglas Engelbart posited about the capability of technology to “augment human intellect.” By this he meant increasing the capability of an individual to approach a complex problem situation, to gain comprehension to suit their particular needs, and to derive solutions to problems. I think that the World Wide Web was an excellent first attempt to reach that goal. We aren’t there yet but the future with Artificial Intelligence, Machine Learning, and other such technologies Engelbart’s “augmentation of human intellect” is moving closer.

A great deal has been written about how in the past 30 years Web technology has dramatically changed the face of human society – some for the better and some not as we have witnessed in recent events. As we look back, we can ask “what were our dreams for the Web?” We hoped for:

- Global collaboration, not just between technologists and researchers but between all persons in all walks of life who seek a united voice;
- A positive use of technology to seek maximum benefit to all;
- Empowerment – enabling those who have been disenfranchised in the past, closing the “digital divide” and achieving Internet access as a basic human right;
- Societal change (hopefully for the positive);
- And finally, doing all of this in a system that is free and open from national or corporate restrictions.

As I think about Engelbart’s dream of “augmenting intellect,” it should also be extended to communities. We sometimes hear about “the wisdom of the crowd” and the expectations that some technologies and applications find in it. Like individuals, the crowd is also expected to provide insight into complex problems, understand them, and derive solutions. In the past, crowds have arisen and contributed to some of the dreams of the Web – empowerment and societal change. However, recently, some crowds, namely social networks, have been under attack and compromised and have potentially lost the “intellect” that they might provide.

The Web itself has been under attack by those who wish to capitalize, monetize, and profit from it. Serious issues such as network neutrality and digital rights management are threatening its freedom and suggest a return to the days of “the walled garden” where Internet access is controlled within a corporate framework. I am concerned about the impact that these policies may have upon education and those who live on the other side of the so-called “digital divide.” The Web and the Internet as a whole should not become a victim of its own success.

We now have one, maybe two, generations who have not known a world without the Web. Therefore, in addition to the early dreams that I mentioned, we now have an obligation to those generations and to their dreams. While there have been numerous great successes, and unthought-of applications, there remain significant challenges and much more work to be done. I am confident that this university and its students and graduates will step up to meet these challenges.

During my visit, I look forward to serious conversations about another new area of research that I find just as exciting as I found the early Web. I am referring to the technology behind and the potential of cryptocurrencies and blockchain. To most of the public the mention of these topics invokes a negative reaction due to common news stories about criminal activities, financial loss, and governmental regulations. However, Bill Gates is quoted as saying that “technology is amoral” which means that the misuse or the benefit behind technology depends upon those developing applications for it. So it is, I believe, for cryptocurrencies and blockchain. Cryptocurrencies have the potential to provide the disenfranchised, unbanked, and exploited citizens of the world with a viable financial system. Access to such a system could allow them to better the lives of themselves and their families. Cryptocurrencies aside, I believe that one of the lasting legacies of this discussion is the blockchain or distributed ledger. The ability to have datasets available to all but with strong security and integrity has potential in many diverse applications. It could allow personal data to be closely managed by its owner and potentially avoid the current issues recently seen in Facebook. Individuals will genuinely own their identity and be able to negotiate its use. While this may sound like an unreasonable dream, I must remind you that so was “the world’s information at your fingertips” that the Web provides and personal computers in households.

In closing, I want to thank you once again for the honor that you have shown me. It will be my distinct privilege to be associated with this outstanding university for the remainder of my career.