

VIII. INTERNATIONAL CONFERENCE

Digital Czech Republic 2023

May 24 - 25

Národní dům na Vinohradech

Prague



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The Future of Mobility



Martin Kolovratník
Deputy, Chamber of Deputies of the Czech Republic
(Czech Republic)

Jiří Pohl
Senior Engineer, Siemens Mobility
(Czech Republic)

Emanuel Šíp
Transport Expert of the Czech Chamber
of Commerce (Czech Republic)

Tomáš Cafourek / MODERATOR
Editor, MF Dnes (Czech Republic)



On May 24, 2023, the Institute for Politics and Society organized an economic forum dedicated to the future of mobility. The main topics of the forum were the transition towards sustainable transport and the mass use of public transport. Jiří Pohl from Siemens Mobility and Emanuel Šíp, working as a transport expert of the Chamber of Commerce of the Czech Republic, spoke together with Martin Kolovratník, a member of the Czech Chamber of Deputies. The discussion was moderated by MF DNES editor Tomáš Cafourek.

Jiří Pohl opened the discussion with the thesis that the current understanding of mobility in the Czech Republic is incorrect. Reducing the debate on progress in mobility to simply replacing cars powered by internal combustion engines with electric cars is wrong. It is necessary to fundamentally change the way we think about the support of both education and investment in terms of multimodal sustainable mobility. However, pressure for a change of approach must come from below, as politicians listen to the voice of citizens.

MP Martin Kolovratník also emphasized that the debate must be about mobility, not necessarily about a narrow section of it. He expressed concern about the ongoing cultural war between political parties leading to the inability to agree on a new desirable form of mobility. Failure to find tools to positively motivate citizens to change their behavior could then lead to unnecessary restrictions, without the state offering an alternative to today's mobility model. MP Kolovratník also highlighted the struggle between administrative units for their particular interests, which, in addition to political struggles, are another obstacle to change and overcome. The state must choose the path of positive motivation for its citizens over restrictions.

Emanuel Šíp clarified the history leading to today's state of mobility, and mentioned that after the Velvet Revolution, owning a car became a matter of status, but to a certain extent in the countryside it was also a necessity due to insufficient physical availability of public transport. According to him, the state should take on the role of a beacon of multimodal sustainable mobility.

Moderator Tomáš Cafourek then turned the debate towards financing and sustainable sources for powering mobility. Thus, he opened a discussion on the topic of who should bear the costs associated with the transition. Martin Kolovratník



mentioned that the transition will put a lot of pressure on the state budget which will have to provide a certain degree of predictability in the area of financing. However, he would resist the transfer of investment to mobility to state mandatory expenditure because the state can never fully anticipate the positive or negative influence of external factors on the ability to maintain its financial plan. Jiří Pohl focused on the need to eliminate dependence on fossil fuels imported from states of geopolitical rivalry. He also mentioned the human rights aspect of the import of oil from the Russian Federation, when by doing so the European Union indirectly finances the Russian military campaign against Ukraine with its oil purchases. Thus, he called for an end to the „fossil party“ and to turn to renewable sources as much as possible. All the speakers then agreed that the fossil party cannot be completely ended in the near future simply by switching to wind and solar energy sources, but that the potential of replacing a high percentage of fossil fuels in the Czech energy mix with renewable sources continues. Martin Kolovratník mentioned the necessity of prudence also towards China, which assists the Czech Republic with its supplying of solar panels necessary for the transition to clean energy, but at the same time quietly creates our new dependence on another nondemocratic regime.

The debate ended with the question of whether or not Europe will succeed in becoming carbon neutral by 2050, as it has pledged. The panelists agreed that this is unlikely to happen. According to Šíp, the goal is nothing, the movement itself is the goal. We should do our best to achieve our goal. Pohl and Kolovratník agreed that the Czech Republic once promised its carbon neutrality at the global level, so it should not resign from its obligations.

PANEL

Keynote Speakers



HLAVNÍ REČNÍCI



Mykhailo Fedorov

Deputy Prime Minister for Innovation, Education, Science and Technological Development; Minister for Digital Transformation of Ukraine, Government of Ukraine (Ukraine)



Ivan Bartoš

Deputy Prime Minister for Digitalisation; Minister for Regional Development, Government of the Czech Republic (Czech Republic)



Karel Havlíček

Vice-Chairman, Chamber of Deputies of the Parliament of the Czech Republic (Czech Republic)

Minister for Regional Development and Deputy Prime Minister for Digitization Ivan Bartoš, at the beginning of his speech, emphasized the important role that artificial intelligence has taken this year. Bartoš remarked, „This year is a significant turning point and revolution in the field of modern technologies, especially thanks to the very rapid development and subsequent introduction of artificial intelligence into practice.“ According to Minister Bartoš, the key is to realize that artificial intelligence has enormous potential, which must be used in our benefit. If we manage to grasp artificial intelligence correctly, it will significantly improve our living and economic standards. Minister Bartoš is convinced that we must be progressive in this area, but also careful, so that artificial intelligence serves us for our benefit, and not for harm. „It must be sensibly regulated lest it cannot be abused and is not the cause of invasion of privacy or does not limit human rights. On the other hand, we must not stop the potential of innovation with excessive regulation,“ stressed Minister Bartoš.

Another key challenge is the digitization process of state administration. To achieve it, the new Digital Information Agency was established. According to Minister Bartoš, it is important that the goals in the field of digitization are achieved stably and efficiently, regardless of who is in charge of government or external influences, such as the current economic crisis. In connection with the increasing rate of digitization, the role of education and especially the teaching of digital skills, which will play a fundamental role in the labor market, is crucial.

In conclusion, Ivan Bartoš emphasized that cooperation at the level of not only state institutions but also the private sector, academia, non-profit organizations or municipalities is key to a successful digitization process. The common goal is a clear, fast and user-friendly state with its services available to all citizens.

In his speech, the Deputy Speaker of the Chamber of Deputies of the Parliament

of the Czech Republic, Karel Havlíček, emphasized that we are currently entering the fourth industrial revolution, which is mainly connected with the advent of artificial intelligence. Artificial intelligence offers not only opportunities and new possibilities, but it also comes with risks. According to Karel Havlíček the main risk is represented by the impact of artificial intelligence on the labor market, for which it is essential to prepare for properly. Furthermore, according to Havlíček, in connection with the rise of artificial intelligence, we as a society will have to properly deal with challenges in the field of ethics, legislation, and politics, „for example, there is a dangerous potential for influencing elections, which we can already observe in the United States.“

It is clear that artificial intelligence poses many challenges and questions that need to be solved effectively and correctly. Therefore, according to Deputy Chairman Havlíček, the key issue is legislative adjustment, not at the national level, but rather at the European



level. The Artificial Intelligence Act is being prepared within the European Union, which will set the basic rules for the use of artificial intelligence. Therefore, it is important „that the Czech Republic plays a central role in the Acts preparation because as a country we have a lot to offer in this area. Even according to the latest surveys, the Czech Republic is in first place in the field of introducing new technologies associated with artificial intelligence.“ Therefore, it would be a shame not to seize the opportunity and lose a favorable position in the field of artificial intelligence.

In his speech, the Minister of Digital Transformation of Ukraine, Mykhailo Fedorov, briefly outlined the role of digital technologies, which are crucial in war-torn Ukraine. Since the beginning of the conflict, dozens of new projects have been implemented, such as a facial recognition system helping to detect war criminals, communication tools, and digital war bonds that support the state's budget. In the field of state administration, more than

fifty new online public services have been implemented over the past year, and more will be added over the course of this year. The aim is to make all major public services and digital documents fully digital. „No paper, no bureaucracy, no corruption.“

Fedorov further drew attention to the importance of the IT business, which during the Russian invasion became the only sector that continues to develop, create jobs and sustain the state's economy. IT entrepreneurs are the target of the Ukrainian government's support.

Digital technologies are not only actively used in the war conflict, but also contribute to the maintenance of the country's economy and create hope for the post-war reconstruction of the country. Fedorov believes that technology will ensure building a better and safer future for Ukraine.

PANEL

Digital Economic (R)evolution



Ivan Bartoš
Deputy Prime Minister for Digitalisation; Minister for Regional Development, Government of the Czech Republic (Czech Republic)



Karel Havlíček
Vice-Chairman, Chamber of Deputies of the Parliament of the Czech Republic (Czech Republic)



Vladimír Dlouhý
President, Czech Chamber of Commerce (Czech Republic)



Jan Blažek
Chairman of the Board, Bankovní identita, a.s. (Czech Republic)



Simona Kijonková
Founder and CEO, Packeta Group (Czech Republic)



Markéta Přenosilová / MODERATOR
Chairman of the Board, Europe Startup Nations Alliance (Czech Republic)

We are currently standing at the crossroad of the future of our economy. Although the Czech labor market can rely on permanently low unemployment, new challenges are coming, especially associated with advancing digitization, automation, and robotization. With many rising challenges, the Czech Republic needs to adapt in order to ensure a prosperous economy.

Digital economic revolution or evolution?

The discussion was opened with the question of whether we are facing a digital economic evolution or revolution. Simona Kijonková, founder and executive director of Packeta Group, believes that this is a process of evolution because although the changes are fast, it is still a continuous development. According to her, the most recent change in the market was due to the COVID-19 pandemic and the subsequent economic crisis associated with the war in Ukraine. The Deputy Speaker of the Chamber of Deputies of the Parliament of the Czech Republic, Karel Havlíček, leans towards the definition of evolution, because it is a natural development, although in a given time of change it may seem like a revolution.



Minister for Regional Development Ivan Bartoš evaluates the process as evolution and highlights the Czech footprint in the development of artificial intelligence, together with Czech start-ups, companies and universities. The President of the Chamber of Commerce of the Czech Republic, Vladimír Dlouhý, assesses the adaptation of Czech entities as an evolution with elements of „revolutionary leaps.“ Nevertheless, these elements must also be regulated. According to him, Czech companies, especially the smaller ones, are not fully prepared for that evolution, although pressure is being exerted on their transformation. Jan Blažek, Chairman of the Board of BankID, evaluates the progress in digitization as evolution. Concluding from his experience gained abroad that the transformation does not take place in leaps and bounds. He describes the transformation in the following words: „The process has several stages, first comes the technology, then companies start learning the potential benefits of implementation, followed by internal processes and an appropriate investment cycle.“

Digitization of the state

The speakers subsequently also touched on the issue of digitization of the state. Ivan Bartoš was confronted with the project of a Czech digital wallet, but he himself believes that a truly revolutionary solution will be the concept of a European digital wallet, not a national one. He perceives the biggest obstacles to be the physical implementation itself. Simona

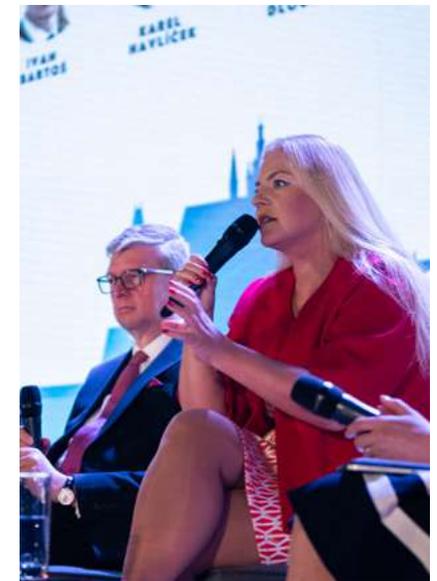
Kijonková considers the digital wallet to be a project of the future which, according to her, could be implemented in the short term from a technical point of view, but she sees obstacles of a procedural nature. Karel Havlíček fears that the whole project could fail due to the unwillingness to push the digitalization of the state through the legislative and transformation process at all cost.

Moderator Markéta Přenosilová asked the panelists a politically sensitive question about the obligation to digitize citizens' communication with the state, specifically the introduction of the obligation to participate in the project of “Datová schránka”. Jan Blažek and Simona Kijonková agreed that the obligation would not be necessary if the state dedicated sufficient funds in the promotion of its digital tools. It is necessary to show and explain to citizens the advantages of the project, which are indisputable. Karel Havlíček expressed the opinion that he would not be afraid to mandate the use of digital tools. The state would thus avoid a situation similar to the one from the time of the COVID-19 pandemic, when entrepreneurs were completely unprepared to communicate with the state digitally.

The debate then turned to the good practice of introducing digitization. Jan Blažek mentioned the complex legal arrangements connected with the regulation of digitization. It is important to use-case, i.e. to analyze what a citizen or company really needs and not to prepare digitization tools only from the table. Simona Kijonková emphasized the need to have a consistent coordinator of innovative solutions. A person who pushes to keep the

implementation time frame, ideally the same person as the project owner.

At the end of the debate, the speakers outlined several issues that we will have to focus on in the near future in the field of digitization. Simona Kijonková highlighted the need to retain highly qualified workers from the IT sector in the Czech Republic. Jan Blažek appealed for the protection of mental health and our data. „We will have to learn how to deal with new technologies intrinsically and how to protect our personal data.“ Ivan Bartoš and Vladimír Dlouhý emphasized the need for public education and technical higher education in order for the Czech start-up scene to have qualified employees.



Recommendation

- The Czech Republic should create an environment that is attractive to highly qualified workers from the IT sector.
- For the implementation of digital solutions it is important to use-case, i.e. the analysis of what the citizen or company really needs and not to prepare digitization tools only from the table.

Tomorrow's Life and the Rise of Artificial Intelligence



Ondřej Kovařík

Member of the European Parliament
(Czech Republic)



Vladimír Mařík

Director, Czech Institute of Informatics, Robotics and Cybernetics, CTU (Czech Republic)



Alžběta Solarczyk Krausová

Research Fellow, Department of Private Law, Institute of State and Law of the Czech Academy of Sciences (Czech Republic)



Josef Holý

IT expert, co-author of the podcast *Canaries in the Net* (Czech Republic)



Daria Hvižďalová / MODERATOR

Member of the Management Board, 42 Prague (Czech Republic)



Recently, in the Czech environment, the center of attention in the field of artificial intelligence has been focused on so-called language models, especially ChatGPT. Although this chatbot arouses conflicting feelings in the public, according to the speakers, it is primarily a tool for handling data, which is supposed to make people's work easier. According to Jiří Holý, IT expert and co-author of the podcast "Kanárči v síti", the arrival of ChatGPT and other similar models will have a significant effect on the labor market. „I cannot say how quickly we will see the impact on the labor market, but it is already clear that the middle class will be influenced the most. Not only workers in administration, state administration or students, but all office professions, and the so-called knowledge or creative industry, they will all use artificial intelligence for their work. We don't have to worry that ChatGPT and similar models will take away people's work, it is rather an assistant that will somehow influence and change the form of their work.“

Development of artificial intelligence in the Czech Republic

In connection with the previous debate, the director of the Czech Institute of Informatics, Robotics and Cybernetics of CTU, Vladimír Mařík, reminded the audience that Czech researchers also play a significant role in the development of artificial intelligence, and in particular of ChatGPT. „In the Czech Republic, we have a very good scientific base of people who deal with this development. I dare to say that the Czech Republic is very good at research and development of artificial intelligence. However, I am concerned that in ten years we may no longer be able to talk about domestic development at all, because long-term funding has been withdrawn from artificial intelligence research.“ Therefore there is a risk that if the state does not support Czech scientists financially, experts will go abroad to work for companies that will be able to pay them adequately.

Alžběta Solarczyk Krausová, head of the Center for Research and Innovation and Cyber Law of the Institute of State and Law of the Czech Academy of Sciences of the Czech Republic, supplemented the debate with a note regarding the legal anchoring of artificial intelligence. „Companies, in their pursuit of rapid development and innovation, often do not think about the consequences and legal implications of using artificial intelligence. Sensitive data and personal data may then be leaked. That's why we need to properly deal with this issue legislatively as soon as possible.“

Cooperation in the field of artificial intelligence

The speakers agreed that in the field of international development of artificial intelligence, Europe is located between the two main actors, i.e. the USA and China. At the level of business, innovation, production or prediction, Europe should try to catch up with China and keep up with it. On the contrary, when it comes to the social impact of artificial intelligence, we should look for our own solutions that meet our democratic values. The question remains whether Europe should retain its uniqueness in the field of artificial intelligence development, or whether to consider cooperation with the US.

At the end of the debate, the speakers agreed that a key aspect in relation to the use of artificial intelligence is education. It is educational institutions that should focus on properly teaching the next generation to use the benefits that the boom in artificial intelligence brings and to prevent its incorrect use or even abuse. The central role in this issue should be played by the state, which must ensure that the issue is included in the curriculum and that teachers are properly trained and able to use artificial intelligence themselves, for example, in teaching.



Recommendation

- Educational institutions will play a key role in the right approach to the use of artificial intelligence. The state should therefore oversee the thorough training of teachers and correctly set the legislation related to this issue.
- The state must consider investing more money in artificial intelligence research. With the current state of funding, there is a risk that experts working in the Czech Republic will leave to work abroad and the Czech Republic will thus lose its favorable position in the field of research.

The Future of Work and the Economy in the Age of Artificial Intelligence



Veronika Pribán Žolnerčíková
Research Fellow, Institute of State and Law of the Czech Academy of Sciences (Czech Republic)



Vladimír Mařík
Director, Czech Institute of Informatics, Robotics and Cybernetics, CTU (Czech Republic)



Ondřej Šteffl
Founder and Director, Scio (Czech Republic)



Helena Horská
Chief Economist, Raiffeisenbank (Czech Republic)



Karel Havlíček / MODERATOR
Vice-Chairman, Chamber of Deputies of the Parliament of the Czech Republic (Czech Republic)

At the beginning of the discussion, Veronika Příbaň Žolnerčíková highlighted the work of Czech scientists in the field of artificial intelligence research, which has moved forward over the past few years. On the other hand, Příbaň Žolnerčíková admitted that the legislative situation in the Czech Republic has not changed much in recent years. „The legal remedy of issues surrounding artificial intelligence will significantly help and facilitate the work of its developers, therefore it is appropriate for the state to start dealing with the legislative side of the matter as well.“ Furthermore, according to Příbaň Žolnerčíková, in the field of artificial intelligence development, increased attention should be paid to its ethical and social impacts.

Vladimír Mařík also drew attention to the excellent work of scientists in the field of artificial intelligence. „Few people know this, but in the Czech Republic we have a very good base of people who are significantly involved in the development of artificial intelligence. For example, Czech scientists were also involved in the creation of Chat GPT. I dare to say that the Czech Republic is very good at research and development of artificial intelligence. However, I am concerned that in ten years we may no longer be able to talk about domestic development at all, because long-term funding has been withdrawn from artificial intelligence research.“ According to Mařík, there is a risk that if the government does not support research financially, experts will go to work abroad.

Helena Horská presented the potential of artificial intelligence in the labor market. „We can already see that population is declining, thus generations entering the labor market now are smaller in numbers than before and we can expect this trend to continue in the next few years. More precisely, about 60,000 fewer people enter the market every year. Meanwhile, we have to deal with constant technological progress. I consider myself a realist and a pragmatist - if we want to maintain the existing welfare, sustainable pension system and other aspects of social welfare state, we need to implement new technologies. In occupations that are repetitive and do not have a greater added value, we can increase labor productivity with artificial intelligence.“ According to Horská, labor migration, which is now even stronger as a result of the war in Ukraine, will not solve the situation in the labor



market. The migration will cover approximately the gap caused by a shrinking population corresponding to just one year of labor.

Ondřej Šteffl contributed to the debate with his view on the relationship between artificial intelligence and education. According to him, it is first necessary to properly train teachers in the field of artificial intelligence and modern technologies. „Teachers need to be freed from the fear of artificial intelligence. Only then can we properly teach children to use artificial intelligence. There is no need to fear it and deliberately avoid it, on the contrary, our children need to be able to work with it properly because it will accompany them for the rest of their lives.“ However, Šteffl added that if we do not specifically focus on schools in the socially and economically disadvantaged regions, the advent of artificial intelligence may lead to an even intensified social cycling, and the privileged children of wealthy parents will be significantly better off.

VIP TALK

The Impact of Modern Technology on Mental Health



Barbora Pšenicová
Director, Nevypušť Duši, z. s. (Czech Republic)



Marek Adler / MODERATOR
Headmaster, Be Open Primary School (Czech Republic)



The issue of mental health has recently become one of the most discussed topics, especially in connection with the COVID-19 pandemic. The transfer of everyday activities to the online world does not only facilitate and speed up our normal activities, but to a large extent, it also relieves us of the need to interact with people. This can have very negative consequences not only for adults, but especially for children and adolescents.

Activities of children and adolescents in the online space

The discussion began with a summary of basic data on the topic of children and adolescents in the online space. Barbora Pšenicová, director of the organization Nevypust' duši, pointed out that over 80% of children and teenagers in the Czech Republic spend far more time in the online world than they would like. Over 60% of them are driven to such behavior by boredom. Moderator Marek Adler asked whether we have overall data on the behavior of adults in the online space or even more targeted data on the behavior of parents of inquired children. „We assume that children and young people need the support of adults in order to properly navigate in the digital environment, but we know that in the eyes of young people over 85% of parents do not show interest in what their children are doing online,“ answered Barbora Pšenicová. Furthermore, she mentioned a survey authored by her organization, according to which the majority of adults consider a long time spent in the online space as not concerning.

Following the provided data, the moderator asked about the risks associated with using the online space. Pšenicová mentioned excessive time spent online as a great risk. „Today we already know that there is a link between a long time spent in the online space and an increase in depressive and anxiety syndromes. However, we should not forget about radicalized content, cyberbullying, or sexting.“ The moderator then asked what drives young people to spend time in the online space, if it poses such risks. Pšenicová concluded that it could be sadness or loneliness. However, she also mentioned the phenomenon of FOMO, which is characterized by the fear of missing out, during the time we are offline.



Technology and mental health care

Technology does not pose only risks. Pšenicová highlighted several applications that can help with breathing exercises or record our mood. She also added that the online environment reduces the barrier of access to therapy. „Recently, we witness a wild spread of online therapy which makes therapy available even in regions where it is lower accessible of medical care. It is also a variant suitable to people with social phobias.“ The moderator and the guest agreed that modern technologies are only tools, and it is up to every individual how they decide to use them. What can be perceived as an advantage of technology can quickly become a disadvantage due to inappropriate use.

At the end of the discussion, the moderator asked about the paradox of the online world allowing us to have everything and everyone at our quick disposal, but at the same spending too much time in front of the screens of our devices makes us lonely. The guest does not see the situation as paradoxical and claims that: „We should start taking care of mental well-being in a slightly different way than merely relying on technology. Modern technology is not a silver bullet.“ She mentioned seven everyday recommendations that could lead to the improvement of mental well-being. For adults, following these recommendations it is about conscious decisions and priorities, but for children, it requires the attentiveness and interest of parents.

Recommendation

- To be interested in how our children spend their time in the online space. For adults, following these recommendations is about conscious decisions and priorities, but for children, it requires the attentiveness and interest of parents.
- Parents themselves should follow the rules of psycho-hygiene. The healthy soul of a child begins with the healthy souls of parents.



DEMOKRATICKÉ SPOLEČNOSTI V ONLINE PROSTORU?



DAVE LEICHTMAN



JAN MACHÁČEK



JAKUB HORÁK



ONDŘEJ MALÝ

PANEL

The Erosion of Democratic Society in the Online Space?



Dave Leichtman
Director of Corporate Citizenship, Microsoft (USA)



Dominika Hajdu
Stream Director, Democracy & Resilience, GLOBSEC (Slovakia)



Jan Macháček
Chairman of the Board, Institute for politics and society (Czech Republic)



Jakub Horák
Marketing Specialist (Czech Republic)



Ondřej Malý / MODERATOR
Independent consultant and analyst (Czech Republic)

The boom in digital technologies brings not only significant positives but also a number of negatives - one of them is disinformation. Although there has been the spreading of false information since ancient times, with the advent of modern technologies and the online space, the influence and speed of spread has increased significantly. Therefore, in today's world disinformation represent a threat that has a significant potential to weaken a democratic society.

Disinformation and regulation

Although disinformation has a destructive effect on the development of a democratic society, it is not always simple to find a common strategy to tackle it. In this context, Dominika Hajdu, head of the Center for Democracy and Resilience at the GLOBSEC think tank, and Dave Leichtman, director of corporate civic responsibility at Microsoft, argue that there is a fine line between censorship and tackling disinformation. „If someone deliberately looks for disinformation and conspiracy theories, they will always find them, we can't just ban them all, we also have to defend freedom of opinion,“ pointed out Dave Leichtman. He also explained that we can simply divide disinformation into two types - the first, which is created primarily for profit, and the second, ideological, which mostly comes from abroad, and which has a real potential to threaten democratic principles.

Marketing specialist Jakub Horák further differentiated between these types. „We have to realize that a large part of the disinformers are not some sophisticated, Russian-controlled propagandists, but people who make money from spreading often bizarre news through advertisements that are linked and placed on their websites. The bigger the nonsense, the faster it spreads and the more money they earn. That's why advertising banners must stop being placed on websites spreading disinformation. Once they're not there, people won't make money from it thus there will be less disinformation.“ The creation

of disinformation is often not an ideological matter, but a financial one. The fight against the second type of disinformation, i.e. those that aim to spread dangerous ideologies among the citizens, requires a more sophisticated way of fighting.

Dominika Hajdu, who was questioned whether or not disinformation needs to be regulated, answered affirmatively, “The problem is that misinformation spreads up to six times faster than fact-based information because it arouses outrage, anger and other negative emotions. Even if we correct the given information retrospectively, it is too late, because the space has already been flooded and true information will only reach a fraction of the people.“ Although fact-checking is rather a reactive matter, according to Jakub Horák, it is an important tool that can function as preventing some from falling for misinformation. However, it is very important to distinguish between what is false information and what is just a different opinion on a matter.

The role of social networks

Jan Macháček, chairman of the board of directors of the Institute for Politics and Society, has repeatedly drawn attention to the connection between misinformation and social networks. It is on these platforms that misinformation spreads and reaches the vast majority of people.

However, according to Macháček, the main threat to a democratic society is the



growing polarization, which is deepening in the online space through social networks. „Social networks' algorithms are set up to pit people against each other. Therefore, they argue about things online instead of having a substantive debate about the issue.“ Therefore, social networks should not only reveal the way their algorithm's function, but should also be responsible for the content they spread. Just like the mainstream media such as newspapers, social networks should be sanctioned if they spread false or otherwise harmful content.

Tackling the spread of disinformation

An important point of the debate was the question of the strategy of combating influential disinformation. According to Dominika Hajdu, it is important to proceed through legislation. „We should use existing laws created to suppress the spread of hatred,

incitement to violence in the offline world and apply them effectively in the online space as well.“ Jakub Horák added that when choosing a legislative path it is always important to take into account who rules and has the power to say, what is and what is not true. Jan Macháček sees the solution in the work of the security services rather than in legislation. They should monitor and trace the money flow behind the spread of ideological disinformation and hold responsible persons accountable.

At the end of the debate, the speakers concluded that the development of artificial intelligence poses a great risk in the context of disinformation. Especially if we are talking about artificial intelligence, which is being developed by non-democratic states like Russia or China. It is therefore necessary for developers and companies involved in the development of artificial intelligence to be aware of the possibility of abuse of artificial intelligence.

Recommendation

- Disinformation content needs to be demonetized - actors who spread disinformation and harmful content should not be able to promote their content through advertisement and placing paid advertising banners on websites.
- Social networks should take responsibility for spreading content on their websites, we need to talk about ways to encourage them to do so.
- The state should adopt legislative measures that will regulate the spread of harmful and disinformation content. However, a distinction needs to be made between what is disinformation and what is just a different opinion.

When We're Replaced by Robots...



Helena Horská
Chief Economist, Raiffeisenbank (Czech Republic)



Michal Šmíd
CEO, Amazon (Czech Republic)



Megi Mejdrechová
Co-founder and CTO, RoboTwin (Czech Republic)



Jan Vetiška
Head of the Department of Robotics and Robots, Institute of Manufacturing Machines, Systems and Robotics, Faculty of Mechanical Engineering, VUT Brno (Czech Republic)



Ladislav Maixner
Chairman, Czech-Moravian Society for Automation (Czech Republic)



Vojtěch Kristen / MODERATOR
Editor, Info.cz (Czech Republic)



The growing influence of modern technologies is particularly evident in the labor market of so-called traditional professions. Many activities, especially in the manufacturing sector, are performed by machines and robots already, and this trend is expected to continue in the future. In this context, the question arises of what to expect from the increasing level of automation and robotization, and how to prepare for it.

The rate of robotization in the Czech Republic

The discussion began by quantifying robots per capita. Moderator Vojtěch Kristen asked the speakers whether the Czech ratio of 162 robots per 10,000 employees is low or high. Jan Vetiška, Head of the Department of Robotics and Robots at the Faculty of Mechanical Engineering at BUT believes that this number is neither too low nor too high. „There are companies where higher robotization would make sense, but we have to help them to overcome the fear of a lack of qualified employees on labor market operating robots.“ Amazon Czech Republic CEO Michal Šmíd added that companies are not only afraid of a lack of qualified operators, but also of expensive services that must often be addressed by foreign outsourcing. Ladislav Maixner, chairman of the Czech-Moravian Society for Automation, emphasized the importance of educating in robotics already at high schools of technical orientation. He mentioned the cooperation between high schools and universities on the preparation of a common robotics textbook. Helena Horská, chief economist of Raiffeisenbank, assesses the potential for further automation and robotization of the Czech economy as above average. „The Czech Republic is one of the most industrialized countries in the European Union. From the structural economic point of view, the robot density is low, but it means there is a lot of potential for improvement. We should look for inspiration outside of Europe, in South Korea or Taiwan.“

The impact of automation and robotization on the economy

The moderator asked the question of whether the suggestive equation between higher robotization and a better functioning economy is valid. Helena Horská claims that the question remains what is better for the economy, overall well-being or social cohesion. „Robotization and automation is a trend we have to adapt to. This is a new model of economic growth. However, it must not be at the expense of social cohesion.“ The moderator followed up and asked Michal Šmíd how the symbiosis between robots and humans works in a company where the ratio of robots to employees is approximately 3 to 1 in favor of employees. Šmíd claims that „robots are not a substitute for human work, but rather help in performing heavy repetitive tasks. The employee does work that is more creative and non-repetitive, the robot does the work that is less complex and more physically demanding. However, the number of robots will increase in the workplace.“ Megi Mejdrechová, co-founder and technical director of RoboTwin, followed up on the statements of Helena Horská when she mentioned the ratio between the degree of robotization and the industrialization of the economy. She is closely observing the growing pressure to robotize small and medium-sized enterprises. In this respect, Mejdrechová believes that SMEs will only be able to keep up with large manufacturers if they decide to robotize. The biggest obstacles are the high purchase price of robots and sometimes also the unavailability of robot



programmers, and thus a longer return on investment. The moderator followed up on the already mentioned limits of robotization in small and medium-sized enterprises and asked what other obstacles companies face. Jan Vetiška and Ladislav Maixner agreed that the fear of a lack of employees capable of operating robots is the largest impediment to the implementation of robots in production. The debate then shifted from the robots themselves to the consequences of their use. Helena Horská mentioned the positive aspects of robotization, which could help Europe solve the problem of an increasingly aging population. At this point, we don't know what the labor market will look like in the future. „The only thing we can be sure of is that there will be a big shift on the labor market. Skills will become more important than memorized knowledge.“ Jan Vetiška mentioned that advancing robotization brings a high interest

of students in obtaining education in this field. The moderator asked the speakers a question about the economic rationality of automation. Michal Šmíd and Helena Horská agreed that automation is often hindered by the current price of work, which is sometimes so low that it is not worth automating. However, companies should look at the situation in a broader time horizon. The price of labor can rise by leaps and bounds, and companies that have neglected automation for a long time will quickly become uncompetitive.

The conclusion of the discussion was devoted to the future of automation. Ladislav Maixner and Michal Šmíd emphasized the use of artificial intelligence in cooperation with robotization. Artificial intelligence will be able to detect wear and tear on robots. Jan Vetiška and Megi Mejdrechová mentioned the flexibility of robots and their ever-higher intelligence.

Recommendation

- Companies should think on the long-term horizon and therefore consider the introduction of robotization in production. Relatively cheap labor may not soon be competitive enough to make underestimating investment in robotics worthwhile.
- The state and society as a whole should try to support education in the field of robotics starting with high schools, otherwise the Czech Republic may face a lack of qualified workforce.



Successful Company = Satisfied Employee?



Jiří Horecký
President, Union of Employers' Associations of the Czech Republic (Czech Republic)



Karel Trpkoš
Deputy for Management 1. Section of Information Technology, Ministry of Labour and Social Affairs (Czech Republic)



Aneta Martišková
Member of the Management Board of Edenred (Czech Republic)



Miloš Vrána
Personnel Deputy, Fakultní nemocnice Bulovka (Czech Republic)



Irena Krcháčková / MODERATOR
Editor, Czech Television (Czech Republic)

“A satisfied employee is an employee who is more productive, more loyal, but also more innovative. Especially the last mentioned characteristic, i.e. their own efforts to improve the functioning and prosperity of the company, is sought after and appreciated by many companies today,” mentioned Jiří Horecký at the beginning of the meeting. “Some benefits have become so common that nobody doubts them anymore. Given the long-term low level of unemployment, companies are trying to compete to see who can offer better employee benefits.” According to Horecký, standard benefits today should include home and office benefits.

Aneta Martišková from Edenred also noted the continuing rise in popularity of focus on work benefits. “Today, when a person goes to a job interview, apart from salary and vacation, they are generally interested in benefits.” According to Martišková, benefits in the field of health, prevention, or sports are becoming more and more popular. However, the popularity of so-called social benefits, which are coming to us from Western countries, is also growing. These include, for example, support for pre-school facilities offered by employers to their employees.

However, according to Martišková, companies should focus more on intergenerational differences in the area of employee benefits. “Young people nowadays have different expectations and requirements from companies than the older generation - what is important for them is enough free time outside of work, the attractiveness of the work performed, or whether the company behaves sustainably.”

Karel Trpkoš also confirmed the above-mentioned trend: “My generation was interested in whether we would be successful at work and how much we would earn; for today’s generation, work-life balance is especially important.” Trpkoš admitted that in the increasingly popular field of IT, employee benefits are not so crucial. “First and foremost, we try to offer potential employees a top-quality and interesting job with a good salary, and then employee benefits come into play.” These can include, for example, foreign travels.



On the other hand, benefits can sometimes play a key role in the IT sector, which is why companies can offer a home office if employees are interested in it. However, Trpkoš pointed out a number of problems in the context of working from home. “In covid, the home office was an effective tool to at least somehow maintain work performance, but performance in the home office is approximately 30 % lower than when working in the office.” Therefore, if working in a traditional work environment is possible, it is almost always better for the employer.

Miroslav Vrána, further confirmed the importance of work benefits in the healthcare sector, which, in his words, “are now a standard offer in addition to the classic salary.” Vrána also highlighted the role of digital technologies, which are playing an increasingly important role in Czech healthcare and pointed out the role of robots being used in surgical procedures.

At the end of the debate, the panelists agreed in particular on how digitalization and the advent of new technologies are changing the dynamics and shape of the working environment. In this context, the panelists positively evaluated the transition to the home office brought about by the pandemic, but they also stressed the need to maintain a traditional working environment, especially in relation to employee performance or building social relationships. Furthermore, the panelists agreed that employers should be aware of the different demands of the younger generations and adapt both working conditions and benefits offered accordingly.

**Alva Finn**Executive Director, European Liberal Forum
(Ireland)

Welcome Speech

“There is great importance in having a community that opens a space and a platform for discussion.” This is how Alva Finn, Executive Director for the European Liberal Forum, opened the beginning of the second day of Digital Czech Republic. She is proud to work for an organization that focuses on bringing new ideas to an open political debate and welcomed the discussion and ideas on the agenda for day two, stating that the “European Liberal Forum aims to create a community that is able to create fresh ideas and develop more on the concept of techno-politics and techno-sustainability more alongside advancing digitalization.” She shared the goals of the forum for the year and their emphasis on connectivity in a digital world, and the new concepts of techno-politics and techno-sustainability. Focusing on digitalization in a broader context allows space for new ideas and solutions to the issues or barriers we may face in a rapidly growing environment. Alva introduced the Keynote Speakers of the day who from different viewpoints introduced the importance of digitalization, and the various approaches to taking advantage of the opportunities it brings to the political and global table.

Keynote Speakers

Firstly, Rodrigo da Costa, the Executive Director for the European Union Space Agency for the Space Programme, told the audience of the importance of the relationship between the digital space and the physical space within which we explore every day. These two have a cohesive relationship, benefiting one another as they develop and grow. "Different sets of data help us to understand our earth and predict what the future could be." Costa spoke of the way we interact with space through many outlets, and digitalization makes that possible.

Martin Hlaváček, Member of European Parliament for the Czech Republic, was another keynote who shared his thoughts on the digital world, and how it is necessary to get rid of unnecessary emotions when discussing a topic like digitization. He acknowledges that there are many different interpretations of what digitization implies and how it can be or should be approached.

Lukáš Kintr, Director for the National Cyber and Information Security Agency of the Czech Republic, used his keynote time to focus on cybersecurity and how we are in a critical time to address such an important topic. In the rapidly growing environment of the digital space there are also rapidly growing scams and hacks flooding the space. Kintr says that "the key and primary tool that can reduce the vulnerability of internet users is effective cybersecurity education."

Didier Reynders, the Belgian European Commissioner for Justice, unfortunately could not join the conference in person, and instead sent a video to be played to the audience. He expressed the goals for the European Commission and the investments they are making into people's skills to create a more digitally literate community. Reynders says that "we need sustainable, reliable digital infrastructures with high-level connectivity" to be able to keep up with a fast-moving world.



Rodrigo da Costa

Executive Director, European Union Space Programme Agency (Portugal)



Martin Hlaváček

Member of the European Parliament (Czech Republic)



Lukáš Kintr

Director, National Cyber and Information Security Agency (Czech Republic)



Didier Reynders

European Commissioner for Justice, European Commission (Belgium)



Cybersecurity in an Open World



ROBERT KRÁLÍČEK



LUKÁŠ KINTR



MATTHIAS SACHS



Robert Králíček

Deputy, Chamber of Deputies of the Czech Republic (Czech Republic)



Lukáš Kintr

Director, National Cyber and Information Security Agency (Czech Republic)



Matthias Sachs

Head of European Cyber Security, Google (Germany)



Lucie Kosová

Senior Advisor, Crime Prevention Department, Ministry of the Interior of the Czech Republic (Czech Republic)



Lucie Kadlecová / MODERATOR

Senior Associate, Cyber & Privacy, PwC; Post-Doctoral Researcher, Peace Research Centre Prague, Charles University (Czech Republic)

Trends in Cybersecurity

Since the onset of Russian aggression in Ukraine, the trends surrounding war and cybersecurity have vastly changed. Warfare has shifted from conventional tank warfare to Ukraine facing over 2000 cyber-attacks on their critical infrastructure over the last year. Breaches of personal data and cyber-attacks have as well been on the rise. Matthias Sachs, Head of European Cyber Security for Google, reports that cyber-attacks toward Ukrainian stakeholders have increased more than 200% coming out of Russia. Among NATO countries and their citizens, cyber-attacks have seen a 300% increase since the onset of the war. As many international governments continue to send aid to Ukraine, the world needs to prioritize and invest in digital infrastructures and protection programs.

Challenges in Cybersecurity

The last year has proved that the EU and NATO must become more proactive in cyber security, and not wait for a major attack to act. One challenge is that the public sectors must comply with standard law-making practices that limit their effectiveness. Beholden to a multi-tier structure; their nations' regulations, EU standards, and NATO. "First, prioritization and lawmaking needs to be changed and needs to be faster because cybercrime and cyber-attacks are much faster than politicians," said Robert Králíček Member of the Chamber of Deputies of the Czech Republic. A potential solution was to standardize the cyber security methods through the European Cybersecurity Certification Scheme for Cloud Services (EUCS). However, Lukáš Kintr, Director for the National Cyber and Information Security Agency of the Czech Republic, explained that the preparative period for EUCS can be up to 2 years. "Our long-term goal is to be more proactive than reactive. It is determined by cooperation and building our capacity," calling for the need for public and private collaboration.

Another challenge is access to cyber literacy education and freedom of information. Lucie Kosová, Senior Advisor for the Crime Prevention Department, explains, "education is a very important prevention tool. Children need to be prepared in elementary school." Furthermore, "soft skills are very important in the prevention of cybercrimes." Other vulnerable groups, like the elderly need to be provided cyber literacy education as a form of personal cyber protection. The education is not only about skills but the psychological elements of cyber-attacks, making the public aware that scammers intend to manipulate your emotions.



Collaborative Security Model

The collaborative security model goes beyond the public and private sector. It is sharing data and resources as well as equal interests, fate, and values. Through collaboration, governments can benefit from the innovation, expertise, and speed of private companies. The question is, who should lead? The private sector is not under the same democratic mandate as public governments. Lukas Kintr explained, "partnership without dialogue doesn't work," the agenda and priorities should be set by the public. The private sector would then bring innovative solutions centered around those priorities and regulations. Transparency should be a top priority, especially in regards to how their products or services affect the consumer, share data, or influence the economy, among other effects. These collaborations are essential to build the capacity of governmental security agencies.

Recommendation

- Prioritize cybersecurity as a form of national and transnational security through financial investment and legislative reform.
- Create public lead private sector partnerships to mitigate cyber security risk.
- Develop clear and example driven cyber literacy programs.

eHealth: a Panacea or a Good Helper?



Henrik Ibsen
Managing Director, OTH.IO (Denmark)



Martin Zeman
Director of IT and Computerization of Health,
Ministry of Health (Czech Republic)



Jürgen Brandstätter
Vice-Chairman, IHE-Europe (Austria)



Barbora Dubanská
Digital health expert, member of the think tank
„Minister of Health“ (Czech Republic)



Jakub Pětioký
Czech Association of Robotics, Telemedicine and
Cybernetics (Czech Republic)



Tomáš Doležal / MODERATOR
Director, Institute for Health Economics (Czech
Republic)

The eHealth sector in the Czech Republic has been behind in its development for the past twenty years, resulting in underutilized medical care. The potential benefits of eHealth portals, such as in Denmark and Austria, are significant. The prevailing consensus is the pressing need to act, initiating steps towards medical digitalization. Considering COVID-19, Barbora Dubanská, digital health expert, believes that prioritizing data organization could have prevented illnesses and deaths. Consequently, the digitization of the public medical sector has become a pertinent matter for doctors, nurses, patients, and the government. Jakub Pětioký from the Czech Association of Robotics, Telemedicine and Cybernetics expressed that “people are not motivated and not ready to be in the healthcare system, they only focus on their sick care,” and eHealth can assist in transforming this age of medicine into a preventative system.

eHealth in Europe

Henrik Ibsen, Managing Director for OTH.IO from Denmark highlighted Denmark’s eHealth awareness due to its establishment of health portals back in 2003 and subsequent trial and error to incorporate newer digital health technologies. Standards have undergone revisions, including a two year growth period before receiving widespread collaboration with government agencies and investors. The current health portal provides features for vaccination/prescription management, legal information, and accessible COVID-19 records to patients. Individual hospitals utilize the API programming system and can provide health portals to patients as well. The primary objective of the digitization effort is to alleviate the burden faced by healthcare professionals, streamline technological utilization, and maximize efficiency.

Austria’s HealthCare Infrastructure focuses on centralization across ascending regions of the country. Vice-President of the IHE-Europe from Austria Jürgen Brandstätter, expressed that eHealth is a crucial pillar for providing services such as e-reporting, hospital summaries, medical information, lab/radiology data, and more. Simplifying data access for private information encourages the inclusion of patients and healthcare providers to actively engage with the program. Approximately 11.5% of Austria’s GDP is allocated to healthcare, the second-highest expenditure in Europe, providing an excellent example to the rest of Europe.

Expansion of eHealth in the Czech Republic

The Czech Republic must innovate and implement digitization to utilize eHealth. Joining stakeholder and government incentives to invest relies on changing the narrative of eHealth’s importance. No subsequent innovation or progress have been observed since the Tečka app’s usage during COVID-19. Ibsen emphasized that, “everyone talks about legislation, but no one is doing anything. We need to put money into it, get experience and work with it,” continuing, “it does not need to be perfect, but we need implementation of medical records.” While the Act of Electronization Health may establish a framework for the future of digital health, additional direct legislation is necessary to drive action and motivate the healthcare industry to embrace digitization. Martin Zeman, Director of IT and Computerization of Health from the Ministry of Health of the Czech Republic, explains prioritization of eHealth is the incentive for health IT professionals to seek jobs in this area.



Recommendation

- The EU must join in its effort not competitively, but cooperatively to ensure that the usage of eHealth portals and the like are available to the public as well as the private sector, taking inspiration from successful programs and legislatively implementing these measures into countries such as the Czech Republic.
- eHealth should not be a cost to the patient as it should make day to day documenting easier, and more cost efficient.
- Past the COVID-19 world, data organization must be prioritized to ensure health and recovery of patients, learning from mistakes that may have cost lives.
- Encourage stakeholders and government agencies to invest resources and financial support in the infrastructure of eHealth as a citizen and as a patient.

Building Skills for a Resilient Cyberspace



Robert Králíček
Deputy, Chamber of Deputies of the Czech Republic (Czech Republic)



Martin Úlovec
Commissioner for Digitalisation and Digital Education, Ministry of Education (Czech Republic)



Matthias Sachs
Head of European Cyber Security, Google (Germany)



Kristina Sedeke
Head of Marketing, Czechitas (Czech Republic)



Lucie Kadlecová / MODERATOR
Senior Associate, Cyber & Privacy, PwC; Post-Doctoral Researcher, Peace Research Centre Prague, Charles University (Czech Republic)



As the world becomes more digital, so does our workforce. This leaves space for more positions of opportunity, but what happens when a field grows so rapidly that there are not enough candidates with the qualifications to fill the positions? This year's Digital Czech Republic was accompanied by some side events that dived into the current issues that we are facing in an up-and-coming digital world. Organized by the European Liberal Forum in cooperation with the Institute for Politics and Society and Google, "Building Skills for a Resilient Cyberspace" was a moment in the conference where issues were looked at for face value, and genuine solutions were able to be proposed."

Level of Cybersecurity Skills

The discussion was kicked off by moderator Lucie Kadlecová, the Senior Associate of Cyber & Privacy at the Peace Research Centre Prague, who introduced the panel and began broadly by addressing the question of, "How are we as a society doing in terms of skills to become more cyber resilient?" Lucie Kadlecová introduced some data that she felt was key to understanding the place we are in and sparking fear and motivation to change the numbers.

- By 2030, the European Union will have a shortage of 8 million IT specialist.
- Currently in the European Union 25% of companies are unable to fill vacancies within their IT related departments.
- Within the overall EU, women make up only 9% of the IT workforce.
- Within the Czech Republic, women make up only 11% of the IT workforce, placing them with the worst result in the EU.

Gender Dimension of the Cybersecurity Skills

Matthias Sachs, Head of European Cybersecurity for Google, played an important role in the discussion by sharing the goals Google aims to achieve in assessing the tech employment issues in the EU. He addressed the proposed question and data by explaining a new program that Google will be introducing in other countries as well as the Czech Republic, "Women for Cyber." Sachs emphasized that it is "our responsibility (Google) as a corporation to provide training and certifications for the public as a whole." Therefore, Google will be pushing for more diversity and inclusion in the digital field and has been investing in a traineeship specifically for women to gain a technical skill set. The training will be for 6 months and conducted by Google experts, adding a well-respected qualification to a goal of 100,000 women's portfolios. The introduction of the new program will be paired with a scholarship fund specifically for underrepresented populations.



Google is starting off the program by allocating scholarships to 1000 women to begin their tech careers. To address the problem even further, Google is pairing up with local company Czechitas to award another 500 scholarships to women in the Czech Republic.

Czechitas Head of Marketing Kristina Sedeke, stressed the importance of the flexibility that is seen in the tech industries, and how we as a society need to "change the way we think about technology," and "design positions that are more suitable for people other than those that graduate from IT universities." We must focus on the lack of space for women in the tech field, the stereotypes they face, and the opportunities that are being wasted with this stigma.



EVA
PAVLÍKOVÁ



KRISTINA
SEDEKE



Eva Pavlíková
Executive Director, Česko.Digital (Czech Republic)



Kristina Sedeke / MODERATOR
Head of Marketing, Czechitas (Czech Republic)

VIP TALK

Women in TECH





Eva Pavlíková, Executive Director for Česko.Digital and moderator, Kristina Sedeke, Head of Marketing for Czechitas, began the discussion to define who are Women in Tech. These positions vary from more traditional IT programming jobs to product designer, researcher, and marketing. At Česko.Digital, when new digital products are developed every department and employee beta tests the product to evaluate its user design. They found women are more equipped in understanding the needs of the user. Overall, the core movement to bring more women into the tech industry is about the diversity of ideas and experiences. The industry and consumer benefit from any level of diversification in a company.



Increasing positions for women in Tech starts with the hiring process. Eva Pavlíková explained that the industry is modernizing, and the same hard coding skills are no longer required qualifications. Women should not see that as a barrier to applying for tech positions, and applications need to be more inclusive. Once hired, companies “need to redesign and understand the needs of women. The Tech Industry’s culture needs to become more flexible and accommodating for everyone.” The “push harder, work harder,” culture of intensity in tech does not fit every woman. Employers should recognize if the woman has other responsibilities, like child rearing, it does not limit her work performance. Measures of flexibility like the option to work from home, flexible hours, paid leave, or providing childcare can benefit the entire team and company.

If companies do not prioritize flexibility but still advocate for more women in the workforce, they are promoting performative inclusivity. The motivation to bring more women into their workforce should be to reshape and diversify the perspective, accessibility, and user design of their products. Men at the companies need to also understand that “having women in all areas is an advantage for all,” said Eva Pavlíková.



PANEL

Defense in the Age of Modern Technology



Kimberly Kagan
 Founder and President, Institute for the Study of War (USA)

Petr Šnajdárek
 Director of the Communications and Information Systems Section of the Ministry of Defence, Army of the Czech Republic (Czech Republic)

Margarita Konaev
 Deputy Director for Analysis, Georgetown Center for Security and Emerging Tech (USA)

Vojtěch Bahenský
 Researcher, Department of Security Studies, Charles University (Czech Republic)

Francesco Cappelletti
 Senior Policy & Research Officer, European Liberal Forum (Italy)

Boris Kaliský / MODERATOR
 Director of Operations, Prague Security Studies Institute (Slovakia)

Russia's invasion of Ukraine was not unforeseen. The prebaking campaign against Russian intelligence revealed their attempts to conduct false flag operations, aiming to depict Ukraine as the aggressor. Kimberly Kagan, Founder and President for the Institute for the Study of War, highlights that at one point, Russia dominated the information space. However, in this era of cyber advancements, the determining factor in the ongoing war will be which alliance can assimilate knowledge and facilitate the distribution of innovations with strong leadership, personnel, and facilities - areas in which Russia is lacking. Given the prevalence of the info war, Europe needed to adapt its security architecture and recognize AI as the sixth domain of warfare, as emphasized by Francesco Cappelletti, Senior Policy and Research Officer for the Liberal Forum. The significance of satellite connectivity is evident in the war, as commercial satellite mapping and the Ukrainian soldiers' usage of Starlink, a satellite internet system, provide a significant communication advantage in the cyber realm.



The Role of Modern Technology in War

The narratives surrounding wars play a crucial role, as propaganda can either rally support or incite detestation through civilian involvement. As the Researcher of the Department of Security Studies from Charles University Vojtěch Bahenský points out, the narrative for Russia will never be portrayed in the positive light they intended, due to the realities of social media and the ease with which war imagery can be disseminated, making it challenging to manipulate public opinion.

The discourse on cybersecurity has historically veered toward futuristic and unrealistic realms. But as technology has evolved and the tensions that preceded the war in Ukraine have multiplied the conversation. As said by Margarita Konaev, Deputy Director for Analysis from Georgetown Center for Security and Emerging Tech, much attention has been focused on drones, even though they are remotely operated and driven by humans rather than being autonomous. Most of the cyber military budget has been allocated to human-controlled machines rather than the development of killer autonomous robots.

Bahenský emphasizes the need for caution, highlighting two essential points. Firstly, the force multiplier concept only works if there is no impediment to its implementation by the Western alliance; otherwise, it remains merely an idea. Secondly, it is crucial to assess the readiness, resilience, safety, and production capacity of the technology to determine its effectiveness. These considerations are essential to avoid investing in illogical endeavors.

Recommendation

- Conversations across the European Union on modern technologies and their use must move towards practical and team-based solutions.
- Training combined with finding innovative ways to intelligently incorporate cybersecurity issues should be a priority in the use of modern technology in defence.
- Actors should be prepared for the spread of propaganda through social networks and find ways to effectively prevent this development.

The Future of Education in 2038



Martin Polaschek
Minister of Education, Government of Austria (Austria)



Jana Berkovcová
Deputy, Chamber of Deputies of the Czech Republic (Czech Republic)



Tereza Vaňková
Executive Director, ReactGirls (Czech Republic)



Martin Úlovec
Commissioner for Digitalisation and Digital Education, Ministry of Education (Czech Republic)



Bartłomiej E. Nowak
President, Vistula Group Universities (Poland)



Ted Urho / MODERATOR
Executive Manager, Agenda (Finland)

The digitalization of the world has led to many changes in the way society operates. One of the most substantial changes we have seen is in education. In a post-covid world, we can now see the advantage that a digitalized market provides to a community. The Future of Education in 2038 panel focused on how the way our children learn is likely to evolve. The panel was moderated by Ted Urho, executive manager of Agenda. He began by asking the speakers how they thought the education system may look in 15 years, sharing his own views on the rapidly changing digital environment.

Martin Polaschek, the Austrian Minister of Education, joined the conversation by video where he stressed the importance of evolving with an evolving world. Teacher trainings and initiatives are crucial to expanding and improving the education system. He says, “We need to ensure that our education systems are flexible and agile to adapt to changes in the world.”

The President of Vistula Group Universities Bartholomew E. Nowak, emphasized the beauty of AI in learning, sharing how it is something that should be embraced, not feared. Developing AI and new technologies can have a positive impact on the way we learn, and Nowak wants to explore this new path to education.

Situation in The Czech Republic

Jana Berkovcová, Deputy at the Chamber of Deputies of the Czech Republic, has played a huge role in improving the digital system within Czech schools. She has seen and shared that there is great benefit in utilizing technology as sources of information or online teaching to share knowledge in a more productive and efficient outlet. However, Berkovcová did not negate that with this rapid change in the educational system comes the issue of a deepening digital gap.



Tereza Vaňková, Executive Director of ReactGirls, also sees and shared the advantages of digitalizing education and creating a new mindset by using new technologies. But with this comes “new principles and new strategies in education” and personalized education comes with the dangers of AI dependence.

The Commissioner for Digitalization and Digital Education for the Czech Republic Martin Úlovec, contributed to the conversation by stressing the individualism that digitized education provides. Going back to the implications of AI in education, Úlovec explained the skills gained such as information validation and becoming an active participant in the learning process by using these tools.

Finally, the speakers agreed that the future of education will continue to change as it has been in recent years. Now is the time where we decide whether we will embrace the positive elements that technology can provide to education, or if we will access this rapid change as an element that needs to be moderated.

Recommendation

- Education is the staple of a society. It is something that should be closely evaluated but not overly moderated. As technology changes and becomes more integrated into education, we recommend that it's utilization in education be updated accordingly to the developments we see.
- Regarding artificial intelligence, there should be a close evaluation around how the technology is being used, and that it is providing an advantage to students and not a disadvantage to their learning. Teacher training and initiatives regarding how to use, moderate, and emanate technology in the classroom and at home is necessary to ensure students are receiving the most updated education possible. These principles need to be equal throughout the EU to prevent a worsening digital gap.

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Institute for Politics and Society

The mission of the Institute is to cultivate the Czech political and public environment through a professional and open discussion and to create a living platform that names the fundamental issues, elaborates their analyses and offers recipes for their solution in the form of cooperation of experts and politicians, international conferences, seminars, public debates, political and social analyses available to Czech society as a whole. We believe that an open professional discussion and knowledge of the nature and causes of individual problems is a prerequisite for any successful solution to the problems of contemporary society. The main themes of our efforts are social transformations, foreign and security policy, defence, European affairs, ways of adapting to emerging climate change and sustainable development, as well as education, schooling, digitization, energy and its new forms, urbanism, life in the city and in public spaces, and last but not least, the issues of values in politics and human rights in our country and in the world.

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European Liberal Forum

European Liberal Forum (ELF) is the foundation of the European Liberal Democrats, the ALDE Party. A core aspect of the forum's work consists in issuing publications on Liberalism and European public policy issues.

The foundation also provides a space for the discussion of European politics, and offers training for liberal-minded citizens. The aim is to promote active citizenship in the European Union. The foundation is made up of a number of European think-tanks, political foundations and institutes. The diversity of membership provides a wealth of knowledge and is a constant source of innovation. In turn, we provide our members with the opportunity to cooperate on European projects under the ELF umbrella.

ELF works throughout Europe as well as in the EU neighbourhood countries. The youthful and dynamic nature of ELF allows us to be at the forefront in promoting active citizenship, getting citizens involved with European issues and building an open, liberal Europe.

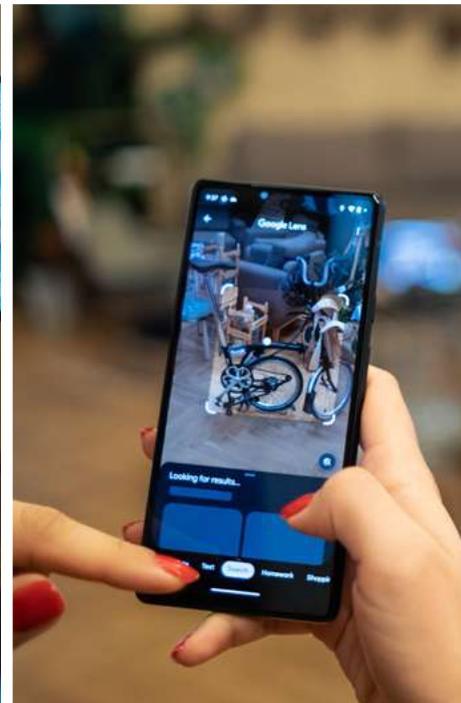
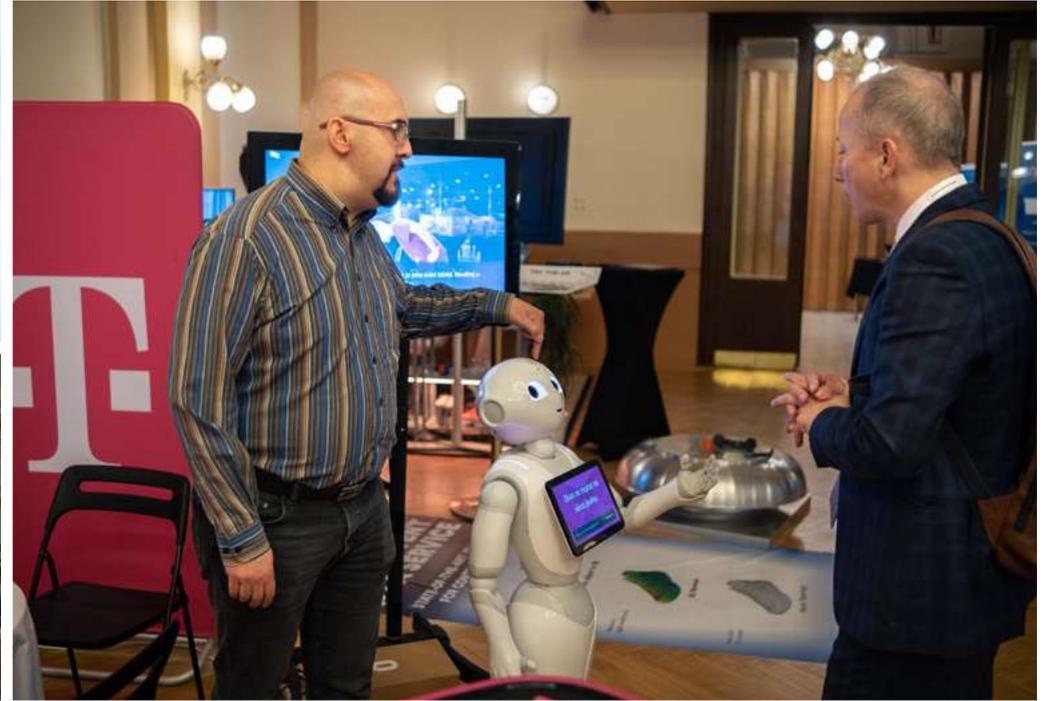
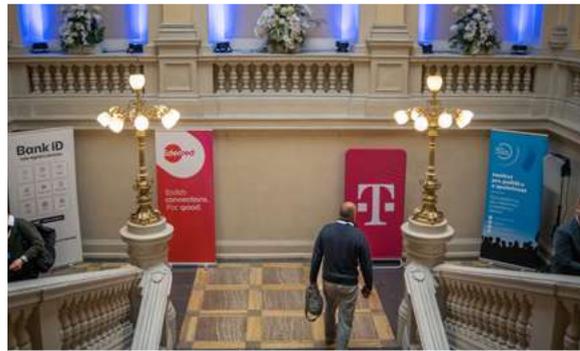
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