

EUROPE : BEYOND

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TECHNOLOGY AND POLITICIANS



SNEAK A PEAK INTO-
Politico-Digital Manipulation across the EU

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IGE Interview: Steven Feldstein

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leaders: the case of Ramzan Kadyrov

THOMAS YAW VOETS

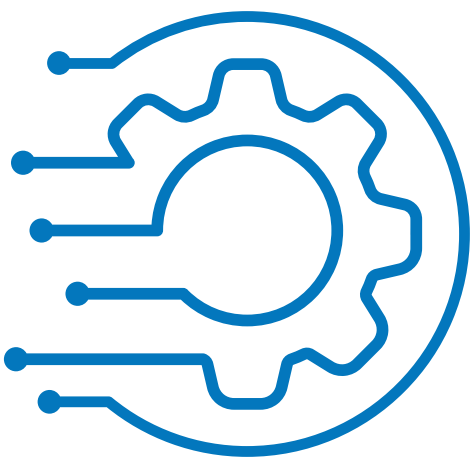
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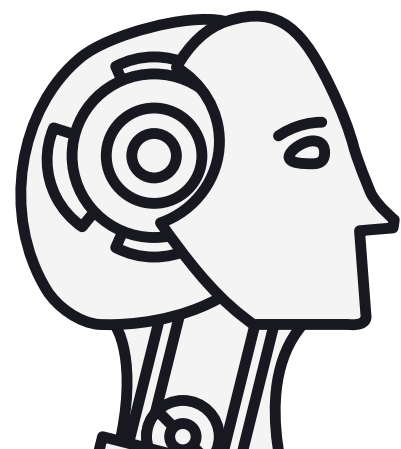
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Note from the Editor-in-Chief



Valentin Luntumbue

For better or worse, two years of confinement and pandemic management have drastically impacted our relationship with technology, the virtual world, digital privacy, and security. Be it tracing, mandatory remote work, or ubiquitous videoconferencing, the pandemic acted as a shock that forced debates around such technologies back into the mainstream. Made unavoidable by the COVID crisis, will they prove resilient now that the world is slowly moving forward? Are they here to stay or have they overstayed their welcome? These are some of the gaps which need to be filled.

Parallely, the insistent promotion of so-called “Web3” technologies such as the blockchain, the metaverse, cryptocurrencies, and non-fungible tokens, have punctuated the COVID years.

Long presented as the inescapable next evolution of the global internet, they both have failed to convince beyond a core of true believers and to fulfil any of their relevant promises. The recent crashes after crashes plaguing cryptocurrencies and their associated technologies seemed to have invalidated the claims of crypto enthusiasts that there laid the future of technology. Not to mention the detrimental effects cryptocurrency generation had on the environment, as we get closer and closer to the point where the effects of global warming will be irreversible. In the face of such challenges, the debate about the future of technology and the way it can help humankind overcome them is more open than ever.



The COVID years were also marked by large-scale military conflicts, be it the Second Karabakh War, the Tigray War, or the most recent Russia-Ukraine war. All were marked by considerable echo on social media, with most of the world confined at home and increasingly online. That amplified resonance was also characterised by consistent PR skirmishes, as well as, at least for the Russian invasion of Ukraine, active cyberwarfare. It seems that the trend that emerged out of the Arab Springs – that war and revolution are increasingly fought online – proves to be stronger with each year.

Because technology, still more present in our lives and still more complex, also seems to be at a historical crossroads, we decided to dedicate this issue of the magazine to the present and future of technology, its growing entanglement with politics and economics, what it means for our rights and democracy, and what is its role in our darkest hours of war and conflict... We will do our best to try to paint a picture of the politics of technology in the post-COVID era. We hope you will find this issue stimulating, should you be passionate about technology, politics, or both.

We wish you a good reading.

Luntumbue M. Valentin
Editor-in-chief

IMAGE MANAGEMENT FOR AUTHORITARIAN LEADERS: THE CASE OF RAMZAN KADYROV

THOMAS YAW VOETS

INTRODUCTION

Ramzan Kadyrov, Chechnya's authoritarian leader since 2007, is generally known for his long reign – which has come at a grave cost to human rights and civil liberties in the southern Russian republic. Yet, Kadyrov also boasts an impressive 7,8 million followers on his unofficial Instagram account (@ya_pomoshnik_kra_95). Since his personal verified account (@kadyrov_95) has been banned, after being suspended three times – in 2017, 2018, and 2019 – due to U.S. sanctions, this Instagram account – officially meant to serve as Chechnya's official tourism planning source – provides a unique insight into the life of this authoritarian leader. Or, at least, the image he wishes to portray to the outside world.

By analysing a subset of Kadyrov's Instagram posts, this article aims to set out and clarify the image he wishes to portray to the outside world. To do this, the article will start by examining the theory related to image management efforts that authoritarian leaders apply.

Thereafter, using qualitative content analysis on a representative sample of Kadyrov's Instagram posts, an attempt will be made to deduce and categorize the main themes that he wishes to convey to the outside world. In concluding, a comparison will be made between the prevailing image of him in the mass media and the image he portrays through his Instagram.



IMAGE MANAGEMENT FOR AUTHORITARIANS

Whereas all state leaders attempt to manage their image abroad to some degree, authoritarian leaders in the post-Cold War era have special incentives to do so. This is due to the predominance of democracy as an international norm. As a result, authoritarian leaders are seen as unstable, untrustworthy and lacking public support. To mitigate this, they have to try to present a positive image of themselves, and the state they rule, abroad. And, to do this, they prefer to use a range of tools aimed at managing public perceptions of themselves.

In general, authoritarian leaders attempt to flood the discursive field with a preferred rendering of themselves and their regime. To do this, they invest in foreign-facing media, hire public relations firms, and showcase their successes to elite and popular foreign audiences. Done crudely and overtly, this is pejoratively dismissed as "propaganda". And, in a certain way, may be innocuous "soft power" or "public diplomacy".

Furthermore, if authoritarian leaders approach this with subtlety, it fosters a plausible narrative about themselves, which may allow them to suspend any lingering narrative with the public. This permits them to undercut the plausibility of alternative narratives, including those that are closer to reality.

However, there is also a darker side to these efforts. Authoritarian leaders try to obscure or censor bad news about themselves and their governments, and often discredit their critics abroad. In extreme cases, authoritarian leaders intimidate, physically attack, or even murder their (self-)exiled opponents overseas. Extraterritorial repression of this sort is facilitated by political, economic, and cultural connections – both inside the country and abroad.

However, there is also a darker side to these efforts. Authoritarian leaders try to obscure or censor bad news about themselves and their governments, and often discredit their critics abroad. In extreme cases, authoritarian leaders intimidate, physically attack, or even murder their (self-)exiled opponents overseas. Extraterritorial repression of this sort is facilitated by political, economic, and cultural connections – both inside the country and abroad.



Lastly, it should be noted that soft authoritarian leaders (e.g. Recep Tayyip Erdoğan, Nayib Bukele, and Aleksandar Vučić) can only resort to overt force when it is deemed unavoidable. In contrast to the blanket coercion of harder regimes, soft authoritarian leaders employ force to signal to intransigents the limits to the regime's tolerance.

Ya_pomoshnik_kra_95

As mentioned above, Chechnya's authoritarian leader, Ramzan Kadyrov, uses an unofficial Instagram account (@ya_pomoshnik_kra_95) to portray a certain image of himself to the outside world. That he has been doing this with great effort can be seen by his quite extensive social-media presence, culminating in a total of 2140 Instagram posts by 14 January 2022. As this Instagram account was created on 6 January 2013, this amounts to approximately 4 pictures a week. However, knowing that Kadyrov used a personal verified account (@kadyrov_95) until being permanently suspended from Instagram in 2019, it is easy to assume that the @ya_pomoshnik_kra_95 Instagram account has only recently been given priority for his image management efforts.

To analyse the image Kadyrov wishes to portray to the outside world, it is necessary to get a sample size of @ya_pomoshnik_kra_95 Instagram posts that is, on the one hand, representative and, on the other, relevant.

Hence, for this article, the choice was made to analyse all Instagram posts between 1 December 2021 and 14 January 2022. This amounts to a total of 124 Instagram posts. Or, approximately 2 or 3 Instagram posts per day. In addition, Inflact's Instagram Profile Analyzer (an AI tool that – as described on its website – conducts a thorough Instagram profile analysis) was used to determine what were the most commented and liked posts of the @ya_pomoshnik_kra_95 Instagram account's last 100 posts. The combination of both means for interpretation allowed me to analyse the 124 Instagram posts from two different angles and enabled triangulation, which consequently yielded more complete data and resulted in more credible findings.

The findings of my analysis allowed me to structure the 124 Instagram posts into five main themes that reflect the image Kadyrov wishes to portray to the outside world. These are the following:

A STRONGMAN RULER

Kadyrov uses social media to craft a strongman persona that is based in historical notions of Chechen identity. It is an identity that can be traced back to the early 20th century, when Leo Tolstoy wrote about the Chechen rebellion in his book "Hadji Murad". Ever since then, ethnic Russians have perceived Chechens as fierce warriors.

And Kadyrov channels that identity in several Instagram posts by showing (military) training montages, mixed martial arts clips, fitness clips, and the alike – some involving him, others with him watching on.

A BENEVOLENT RULER

In several of his Instagram posts, Kadyrov can be seen opening new public buildings in Chechnya (for example, schools, medical centres, mosques,...) or visiting Chechnyan administrative offices (for example, the Chechen Republic Prosecutor's Office, the State Commission for Research and Preservation of the Historical and Cultural Heritage of the Peoples of the Chechen Republic). By doing this, he wishes to portray the image that his (autocratic) rule as head of the Chechen Republic is being undertaken for the benefit of the entire Chechen population – standing in contrast to other rulers who do so only for their own self-interest. This allows him to give substance to his desired title of "father of the nation", as his followers obediently describe him.

A STRONGLY RELIGIOUS RULER

Kadyrov maintains a steady stream of overtly religious posts online. As such, on several of his Instagram posts, Kadyrov can be seen praying or walking with Salah Mezhiev, the supreme mufti of Chechnya. He also often features the Akhmad Kadyrov Mosque, an opulent building named after his father that symbolizes both Chechen renewal and Ramzan's self-proclaimed commitment to Islam.

By doing so, he emphasises that he himself is a symbol of the high moral and religious standards that rulers must adhere to. Moreover, he implicitly wants to convey that he owes it to the supreme power that he is allowed to govern Chechnya, a predominantly Muslim republic.

A RULER THAT IS CLOSE TO CELEBRITIES, IN PARTICULAR COMBAT SPORTS ATHLETES

Ramzan Kadyrov presents himself as a ruler that is close to celebrities, in particular combat sports athletes. As such, Kadyrov has paid for several western celebrities to visit Chechnya. These have included actors Steven Seagal and Jean-Claude Van Damme, and actress Hilary Swank. However, he has a very obvious fiend for mixed martial artists and professional boxers – in particular those of Chechnyan descent. This can be seen very clearly in his Instagram post, and links to his aim to be seen as a strong, athletic – strongman – ruler, like his patron, Vladimir Putin, Russia's president.



A FAMILY MAN

As the Kadyrov family dominates the public discourse in the Chechnyan republic, Kadyrov – a father of 14 children – wishes to convey his close family ties via social media. This ranges from dedicated Instagram posts to his family members (e.g. on 11 January 2022, he dedicated an Instagram post to his brother Khas-Magomed Kadyrov), to posts of himself playing with several of his children or as a proud father.

CONCLUSION

Multiple sources – ranging from academia to mass media and NGO reporting – have outlined how Ramzan Kadyrov controls everything in the Russian republic Chechnya, from dress codes to religious practices. The same sources have also, on many instances, stressed how he crushes dissenters and those he deems weak, such as gay people. He is known for public intimidation and making death threats against critics, and forcing people to confess to moral “crimes” on the local public broadcast. Human Rights activists and critics say that Kadyrov’s grasp of Chechnya is not only all-encompassing, but also brutally violent. In recent years, some of the most chilling accounts of life in Chechnya have come from reports about “antigay purges”, the systematic abduction, torture, and even killing members of the LGBT community. In addition, Kadyrov has been accused of overseeing widespread corruption and even taking part of the regional budget for his own personal use.

Hence, from the above-made analysis, we can conclude that the @ya_pomoshnik_kra_95 Instagram account serves as a distraction from the controversial internal practices taking place in Chechnya. And, although it is difficult to measure the account’s success in doing this, the fact that it has approximately 8.2 million followers – almost 6 times the population of Chechnya – indicates that its posts are being watched far beyond Chechnya.



ABOUT THE AUTHOR

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IGE INTERVIEW: HEIDRUN ÅM



Heidrun Åm is an Associate Professor at the Department for Sociology and Political Science at the Norwegian University for Science and Technology (NTNU). Her background is in Political Sciences, and Science and Technology Studies (STS). She has conducted research on the governance of science and technology, with a focus on nano- and biotechnology research, sustainable energy and society, and interdisciplinarity. Presently, she is leading the research project "Res Publica. Responsibility, practice, and the public good across Digital Life". This project is a concomitant research project to the national Centre for Digital Life Norway. Her approach in her interdisciplinary field is drawn through interpretive (policy) analysis, concepts from STS (such as co-production of science and society, and actor-network theory), and political discourse theory.

Interviewed by: Dyuti Pandya (Magazine Supporting Editor)

Dyuti: Good afternoon, before we begin our interview, I wanted to ask you about your intriguing background, which happens to be a varied field of study according to me. What made you get interested in political sciences and sciences and technology?

Heidrun: I have a Ph.D. in political sciences and I wrote my doctoral thesis about nanotechnology governance, where I was comparing the governance of nanotechnology in the UK and Germany. I was wondering why policymakers set out to govern nanotechnologies, but not, f. ex., micro-technologies. What is 'nano', about? I wanted to identify what the policy problem to be defined here was. Afterwards, I worked for many years in a field called science and technology studies, (STS). This is a field which is recognizing that the technological development process is not only technical but always also inherently social, political, and economic. You can say that society and which kind of future we want to create through technology are co-producing each other, or influencing each other. For the last few years, I am working as an associate professor in sociology – particularly political sociology. My field is technology and social change. I hear you saying that people would think of technology and political sciences as separate things. But I think there should be many students and people working on these topics together because technology has such an influence on how we think about and live in society and do politics.

Dyuti: When we talk about societies, the first thought which comes up is that people often distrust politics, which leaves them to look to democratic processes. But then you have technology intertwining itself into society more and more, so as times are set to become more technocratic and less democratic, how will the public interest will shape itself?

Heidrun: I think that is a very interesting observation that you share here. When you say people distrust politics, I interpret you as such that you mean that people mistrust politicians and the political systems. You also say, they will turn to democratic processes. This would be a good sign for democracy. It would mean that people have a belief that democratic processes work well and that they can have an influence, that they can use these processes to make a difference. But then, you also say technologies come into play, which can lead to processes becoming technocratic. This is quite a right observation. We live in a technological society and we are trying to have policies that are mostly evidence-based, based on facts. F. ex, climate science, and climate change is an issue where you need to graph the facts to show the reality of climate change, which is happening and taking place, and so through the evidence gathered, we can justify actions.

So, we need scientific knowledge and evidence. But as you correctly say that evidence gathering and scientific knowledge can lead to democratic processes becoming more complicated over time, for example, if we stick to the problem of climate change, you will see people protesting against windmills, at least this is happening in Norway, this is because people in the surrounding areas, where the windmills are built, experience that the windmills are intervening in nature and their living surroundings.

Controversies emerge, and in these controversies, what often happens is that you get to discuss cost-benefits-analyses with many models and numbers involved, and maybe citizens, who have been protesting, they fall off a bit, because for them this is not a question of facts of how much energy it generates, but it is a question of their daily lives and values they have. This kind of value conflicts, we cannot serve with scientific knowledge. I think the question is how we can organize democratic processes in a way that citizens have the ability to understand and contribute to complex socio-technical issues and also how can we organize a public debate in a manner where we allow definitions of the common good to emerge. In the case of the windmills, the common good can be that yes, we need sustainable energy, but a common good is also that we need to value the nature we are living in., Basically I am afraid that there is no easy answer to the questions, and maybe it boils down to the fact that we need to try to ensure that we have open democratic spaces in which citizens can participate and deliberate and that these spaces are not dominated by people in power.

Dyuti: Your last line, **“These spaces should not be dominated by people in power,”** so here the concept of checks and balances can come in a democratic power. So, with new technologies coming up, do you think we will be abandoning the concept of checks and balances?

Heidrun: The concept of checks and balances refers to that we have a balance between power and control, between the parliament, and the government and the courts. I do not know how technology will intervene exactly in this triangle of representative institutions and executive institutions in a democracy. But in cases, where technology changes something in power, what we first need to understand is who is setting the rules and who has the power to define the rules. This reminds me of a recent example during the pandemic. I do not know about India, but many European countries tried to govern the pandemic with different kinds of contract tracing apps, so you would know whom you have been in contact with and make contract tracing easier and quicker.

I and a colleague compared the making of these apps in Norway and Austria, and we found that these apps got very similar in their technological setups after one year of trying to implement them because their technological setup came to be defined by the Google Apple Exposure Notification (GAEN) framework. When reading documents of the Norwegian app software developers, we found that they faced difficulties in instances where Google and Apple would not allow apps in their play stores that would allow governmental authorities to collect information for public policy making. So, some of the features that for example Norwegian policymakers thought would be important in the implementation of these apps could not be integrated.

And that is a very interesting development because actually, this kind of question on who is supposed to collect data from citizens is something you would expect that governments decide based on democratic decision-making, but in this case, it was evidently Google and Apple who were deciding what is possible or not, and they are basically not democratically legitimized actors, and here we see power shifts and new dynamics emerging, which indicates that big digital and national companies have a lot of influence. Talking about check and balances, Shoshana Zuboff described in "The age of surveillance capitalism" interestingly how many people come from Google to the White House in the USA and how many people from the White House go to Google. These revolving doors are problematic and important when understanding the interplay between big technology companies and governments. These developments need to be considered when talking about checks and balances and democratic distribution of power and technology.

Dyuti: This opens up my next question, when you have bigtech companies on one end, and the government on the other, so presently we are seeing an interplay between the private and public partnership, which will only enlarge more once a technology gets more ingrained in societies, so how do you think the governments can acts as a catalyst here for a new action?

Heidrun: That is an interesting question on which an entire research thesis could be written on. I do not think I have a clear answer on what government action could look like, but I think what we can say by now is that governmental digitalization policies and processes that we see in many countries and Western democracies are quite one-sided. For example, there are quite a few studies comparing artificial intelligent policies in different countries, and policies on data-driven governance and you find the same imaginary ideas in all of these different countries, including Asia, Europe, South America, and America, the same, very optimistic technology narratives exist in these policies.

I think what I would wish to see is not skepticism but more awareness of what technology is doing to citizens' rights and democracy, because when you look at the ethics and regulations sections of these documents', they are very narrow: discussing who is owning data and what could be ethical artificial intelligence. I miss a debate on how one can restrict the power of such big tech international companies. Of course, I also think European Union policymakers are making a real effort on f. ex. GDPR, and there was a new decision that you could no longer deliver data from European citizens to the US for privacy rights. There are many ongoing developments, but still if you read digitization policies in different countries, the focus, I would claim, is a very optimistic one. It's about winning the technological race between nations and about not falling back on rankings on digitalization. The goal is to be the most digitalized. I think the goal should also be to protect citizens and trying to take the stance in democracy that it should be the citizens that decide on which kind of future we want to form with digitalization.

Dyuti: Let us now talk a bit more on how you think women can get more involved in the policymaking field of leadership and technology?

Heidrun: It is good you bring this up. The lack of women in leadership positions is a problem beyond technology. If you think about government actions, we can agree that legal action helps. You can look at Scandinavian countries. I live in Norway and about 15-20 years ago, they have implemented policies to get women into board rooms and management and the rule is that at least 40%, of all boards, even in private businesses, have to be women. One has to think a bit in this direction., Often gender policies, for example on women in technology – they only talk about how we can increase the ratio of getting women into STEM education, and of course motivating people is important, but we also need to think about structures and how to push through policies.

Dyuti: Can you think of any conversation you had in recent times, that made you re-think the way politics and technology are going to play at large?

Heidrun: Maybe I should start by saying that with politics, I am not only thinking about politicians, parliament, or policy documents but politics is also about how we govern ourselves in the daily lives of our organizations. What I realized in a conversation with students recently – I have many students who are already in the work-life taking postgraduate education – is that much of the management is really implemented through technology. For example, you can see in Outlook what kind of meetings do your employees have, you can check in different kind of apps and software solutions, and how much time employees spend on different kinds of work tasks.

This is also happening in public administration. Employers are gathering more and more data on different tasks of employees. All of this control and monitoring becomes integrated into daily lives, you do not see it anymore and you cannot escape anymore, all of this governance is close to our work practices, and that is one of the changes in technology and politics. Another is if you think politics in a more traditional manner, for doing public services for example or governing in parliament, I think there might be huge changes coming up in terms of the ideas of data-driven governance that we should use more and more data in the public sector, for example, to try and predict developments. This is about big data in the public sector, and using machine learning on data you have- There are studies from Cardiff's Data Justice Lab showing how governments are trying to define risk scores for citizens, for example, to define which children risk becoming in need of child welfare services. By profiling citizens by means of the use of artificial intelligence, we may repeat biases in the data. This is a well-known critique against artificial intelligence but still, if you ask about changes between technology and politics, I think it needs to be mentioned. How we use data and how data-driven governance and the data-driven economy effects relations between citizens, marked actors, and governments matters for the future of technology and politics.

Dyuti: Politically oriented tech projects are part of digital democratic innovations that have been known to advocate values and ideas of open government. With the existence of rising corruption and misinformation in public administration, do you think it is possible to convert the present political communication for the better good?

Heidrun: Well, I think we need to believe that or else everything else would be rather pessimistic. When the internet came about 20-25 years ago, there were all of these big hopes that this would help to democratize public discourse and give people more information and power. Now, many in the internet studies field are disappointed with the commodification of public space in the internet, and how this developed. But still, I do not want to participate in a narrative that everything is going down. I think technology also give us chance in improvement, f. ex. to have a more transparent system when you can access digital platforms used in public administration system.

Dyuti: The direction of technological change is something we determine socially and economically. And this varies substantially which each discipline, how do you think governments are going to address this change in a new perceived era of technology and politics?

Heidrun: I think many governments address technology in deterministic manner, as if it was not society deciding about technologies' development. In addition to what I said above that this is always happening in a positive manner, governments want to push technology developments to be the first ones. What I would wish to see is to have more awareness in government agencies and in governments that technology development is something that we steer or govern. It's a social, political, and economic development that we decide for and we shall not just let it happen. This is what I hope for. It would require much more awareness of how intertwined technology and politics in fact are.

Dyuti: Nanotechnology research has been alleged several times that can create new and nefarious kinds of weapons created by governments which can likely end up in the hands of terrorists. How do you think the national governments will abuse the threat of terrorism to pursue their own political goals?

Heidrun: This question needs to be analyzed in the context of which government we are talking about. Threats that new weapons could get out of hands are not new to our time, neither are they new to nanotechnology. But you could rather say that with each technological development, there is of course the possibility that the technology has unintended consequences, that can get out of control. The question then is: should we develop technologies if they get out of control? It is not just nanotechnology, it concerns any area of technology that can be involved in weapon development, but also drug developments that could turn into biohazards. I am sorry this is a bit difficult to answer more concretely.

Dyuti: One of your paper's title really struck me, "Don't Make Nanotechnology Sexy, Ensure Its Benefits, and Be Neutral" Let us place this in new intermediary institutions which may be ambiguous in governing technology and politics together, as new policies and political space can likely emerge in a possible institutional void, how do you think the interplay of these new spaces plays out in present day-authoritative times?

Heidrun: That was very smartly observed. I wrote and published this paper on the role of intermediary institutions. These are institutions mediating between governments, technology, and scientists.

What you observed is that I wrote that new technologies often develop in an institutional void. The idea here was to say that when new technologies emerge, it is not clear who is supposed to do something about it. So, if there is a problem who are the ones who are putting it as a public issue and again if it does become a public issue, then who will be responsible for dealing with this, it sometimes takes times to define who are responsible actors. I think here you have rightly pointed out that how much of an institutional void exists depends on the context and especially in authoritarian countries' regimes, there might not be such a void and it might be clearly defined on who is having a say or not when it comes to new technologies. I think one cannot say there is an institutional void, not even maybe in non-authoritarian countries but in which respect which actors come into play, which institutions first speak on behalf of a new technology that could be more open in non-authoritarian countries, but I have not studied authoritarian countries in particular.

Dyuti: Thank you for your time, and it was wonderful talking to you on this and gaining some very insightful perspectives!



LOOKING OUT FOR A HERO: THE SCIENCE OF SUPERHERO IN CHINA

STEPHAN RAAB

*Looking out for a hero or superheroes and their (his-)story of future
A comparison of modernisation discourse from a Western and a Chinese perspective*

Throughout history, tough times of crisis are those times when (super-)heroes are born. Looking at the cinemas and bookstores during the last years, superheroes have gained new popularity proven by a steadily growing fanbase all over the globe including Chinese youth. Nevertheless, superheroes are not new, yet they exist since humankind started to tell stories fulfilling an educational purpose. Listening to fantastic and heroic stories, gives the audience an idea, of what made societies the way they are, as it encourages their members to reflect upon whom each member and the community as a whole want to be in the future. In the following, the reader will be introduced to the imaginative world of 新法螺先生 (Faluo Tan) or in his translation known as Mr. Absurdity and his "absurd" mission to bring enlightenment to his Chinese compatriots.

Comparing his efforts with the previous attempts made by his European counterparts discusses the hopes and delusions of enlightenment to improve societies through science and education. (Re-)telling the story of superheroes will try to provide insights from a Western, European, and Asian perspective giving a better understanding of their cultural endeavors and envisaging overcoming their spiritual and historical boundaries in their quest for modernity in a global age.



SEARCHING FOR A HERO OR THE UNIVERSAL MYTH OF HEROES

Even though most people never have met a superhero in person, it seems, that superheroes are to be found everywhere around, might this be in the cinema, conventions, or bookstores. In the last years besides the long tradition in the West, superheroes have gained popularity among Chinese youth. Following the long-time spans of the movies, the young audience observes their superheroes grow, while the audience grows with them. Simultaneously superheroes provide an important function in addressing social issues and support people in the process of constructing their own spiritual purpose in the world.

Astonishing modern societies rely upon the rationalities of science, where superheroes with their scientifically inexplicable superpowers should not be fitting within anymore. However, the opposite is currently taking place. Desires and interests for heroes are on the rise again. During the Qingming-Festival, also known as Tomb-Sweeping-Day, when people mourn about their deceased relatives, General Secretary of the Chinese Communist Party Xi Jinping gave an address stating: "The Chinese nation is a nation of heroes, and more heroes emerge in the new era".

Every nation search for its own (super-) heroes. In the following, the reader will be invited onto a journey through fantastic worlds to shed light on different conceptions about societies and their relation to science on the path to modernisation.

"SCIENCE, OR ITS REPRESENTATION, IS CENTRAL TO THE CONSTITUTION OF THE FANTASY WORLDS ("UNIVERSES")

-that super-heroes inhabit." Thinking about science the first association of scientific endeavors is to enable progress through more knowledge and better technologies. Here, superheroes serve as points of reflection about the social and cultural meaning of science. Disregarding distinct cultural backgrounds, US- professor for literature Joseph Campbell discovered a monomyth of heroes' journeys. In his book "The Hero with a Thousand Faces" Campbell argues that all stories about heroes are based upon a common myth, defined as a universal monomyth: "A hero ventures forth from the world of common day into a region of supernatural wonder: fabulous forces are there encountered and a decisive victory is won: the hero comes back from this mysterious adventure with the power to bestow boons on his fellow man. Having studied myths from Iceland to India, each hero's journey follows five steps.

Firstly, the hero lives in a mundane but tedious world. However, suddenly the protagonist receives a call to adventure, either by a special event or by being called by a strong mentor. Thirdly, the hero leaves the old world behind, entering a new, yet unknown world. Here as the fourth step the protagonist meets new friends and foes, dealing with tough challenges. Eventually, in the fifth step, the hero returns home to improve the old world, for becoming the master of both worlds. Foremost the 19th century was the moment of history when the East and the West met on their paths from the past to the ideas of modernity.

Along this path, this contribution will invite the reader to join on a fantastic journey, through the worlds of superheroes searching for diverse ways of enlightenment in the modern world. In the first part, the call for modernisation of Chinese society will be discussed. In the second part, readers will follow Mr. Absurdity on his mission to modernize China. In the third part, the power of stories for creating history will be shown. After that, the fourth part will compare different conceptions about technology as a tool for modernisation. Following that path, the fifth part will appeal to the power of superhero stories for sense-making and identity forming. Eventually, the six parts will give a conclusion combining science with spirituality and fantasy.

THE MUNDANE WORLD OR THE BEGINNING OF CHINESE MODERNITY

At the beginning of this journey, our hero Mr. Absurdity. introduces himself, as someone who at a young age was highly convinced of the ideas of steady celestial order. The same counts for the perception of Chinese society at the beginning of the 19th century.



Figure 1 Mr. Absurdity searching to enlighten China

Since the adventures of the Chinese navigator Zhen He and his seven voyages in the early 15th century, the conception of China's trajectory was rather tedious. For centuries any concept of "progress" did not exist in Chinese philosophy emphasized by the saying: "Heaven does not change, and the Dao does not change.

Approaching geography through this mental model, China from a Western perspective was considered as the country of "eternal standstill" a conception adopted by Chinese reformist thinkers such as Wang Rongbao, in 1903: "The people's level of knowledge and virtue, as well as the history of their lives, have been one and the same for several millennia."

Suddenly, modernity started when Europe and Asia converged their trajectories of history. Discussing "A New Account of Mr. Absurdity" (新法螺先生譚), written by Xu Nanci stands as a notable example of this convergence. The character Mr. Absurdity was inspired by the historic figure of Baron Hieronymus Carl Friedrich von Münchhausen (1720-1797). Having spent his life in Germany and Russia, the Baron was known for telling fantastic stories of his life, that often sounded too fantastic for being true. .

Those were collected by Gottfried August Bürger (1747-1794) in his novel "The Marvelous Travels and Adventures of Baron Münchhausen". Nevertheless, despite their common roots, Mr. Absurdity and Baron Münchhausen could not be more different. Meanwhile, Mr. Absurdity still believes in the eternities of the cosmos, the historical figure Baron Hieronymus Carl Friedrich von Münchhausen could witness the changes of modernisation such as the steam engine or flying balloons by the Montgolfière brothers.

In his stories Münchhausen experiences many adventures such as flying on a cannonball or even flying to the moon. In his work, Bürger envisaged creating a counterpoint to the rationalities of enlightenment. During his many voyages, the baron on the one side caricaturizes absurdities of his time, meanwhile criticizing the rational zeitgeist limiting everything from being explained by rationality. Here, the author reveals the truth through laughter, presenting serious reflections upon the enlightenment.

At all Münchhausen and his fantasies stand for a time that is progressing fast, meanwhile Mr. Absurdity seems to be stuck in a steady and rigid past

A CALL TO ACTION OR THE CHINESE CONTACT WITH WESTERN MODERNITY

Suddenly, Mr. Absurdity starts to doubt upon his perspective on the mechanism of the world. When he gets acquainted with the concepts of natural science through studying plants and minerals, he starts to become a researcher, asking himself, what is yet to be known, as what is not possible to be known. Suddenly, he realises, that there must be more. Like the superhero during this time, in Germany, another polymath called Faust starts to question the limits of knowledge. Both seem to have reached their epistemic limits , with Faust arguing that, he might know a lot, but he would like to know everything. Frustrated he delves in the spiritual world. Likewise, his Chinese counterpart, having spent two years of research without any progress, decides to climb a mountain, to reflect upon his ideas. During a thunderstorm, Mr. Absurdity is torn into two pieces, which are his body without the brain and his soul, with each of them starting a separate journey. Astoundingly, Goethe approaches the limits of science from a rational perspective entering the spiritual one, Xu Nanci chooses the opposite direction for reflection upon the role of science and spirituality.

Appealing to the hopes of enlightenment and education, this diverging direction can be explained by two diverging concepts about science and technology. Since ancient times Chinese conceptions about gaining knowledge were mostly practice-oriented. When Europe astronomers such as Galileo or Keppler were studying the sky to find astronomical laws, their Chinese counterparts were studying the celestial bodies for producing astronomic calendars. Those calendars served the government, whereas in Europe governmental observatories were not established before the seventeenth century. Metaphysics as practiced in the West and basic science for the generation of theories were considered as the "skill of killing dragons" because it was impractical". After the Opium War new technologies such as railroads, telegraphs, and match factories were springing up in old China. Regarding the introduction of technology as "modernization" the Chinese society did not adapt to the message summarized by the words of British philosopher and mathematician Alfred Whitehead: "A new method entered into life. In order to understand our epoch, we can neglect all the details of the change, such as railways, telegraphs, radios, spinning machines, and synthetic dyes. We must concentrate on the method in itself; that is the real novelty, which has broken up the foundations of the old civilization".

Keeping that in mind will help to understand the struggles of Mr. Absurdity and his colleagues to convince of a new thinking, because more important than the invention itself, that is the method of invention.

Reflecting upon the separation of Mr. Absurdity into two individual elements, the fate of Chinese history was torn apart as well. Industrialisation and colonialism encouraged the West to expand its activities while changing its perspective on the world: "In the seventeenth century, a new vision of the world began to develop in Europe that is still with us today: the world as an open community brought together through a liberal exchange of goods, people, and ideas. In the construction of this vision, China easily came to represent the exception—a closed empire that had to be unlocked to enter into communion with the rest of the globe. Nevertheless, China did not enter modernization as the "helpless land of famine" as living standards at the beginning of the 19th century in China were comparable to the West. However, the impacts of two opium wars from 1839 to 1842 and 1856 to 1858, revealed, that China was lagging, in determining the terms of trade of a world, which was on its march to get globalised.

Additionally, the Taiping Rebellion lasted from 1850 to 1864, under the leadership of Hong Xiuquan, proclaiming himself the "little brother of Jesus" as the "Heavenly King" put the rule of the Manchu emperor Qin Dynasty into question. Witnessing the demise of Chinese historic achievements against the West led to an urgent intellectual call for the modernisation of Chinese society.

LEAVING THE OLD WORLD BEHIND AND ENTERING THE WORLD OF FICTION

During the 19th century thanks to many translation efforts, Chinese intellectuals encountered the Western concepts of enlightenment. In 1896 Yan Fu translated Thomas Huxley's theory about "Evolution and Ethics" to the Chinese audience, conveying the following core message: "The greatest progress science made in the nineteenth century is the theory that human beings, instead of being creatures of God as held by the ancients ... are one phase of the evolution of living things. "

The ideals of enlightenment argued, that science and technology can educate people, leading to a change of society for the better. Consequently, in Europe an expansion of literature took place. Before reading habits were focused mostly on studying the bible. Suddenly, a multitude of books stand on disposition for a growing audience of a society that was slowly getting literate.

Aware and afraid, that China was lagging behind the West, Chinese thinkers had identified, that a transformation of culture (wenhua 文化) or "civilization" (wenming 文明) was inevitable.

Central to this transformation was the establishment of a modern concept of literature (wenxu 文学). "Literature is the first step for education!" became, the slogan of that time as previously proclaimed by Chinese scholar Yang Tingyung (1562-1627). Another scholar Wei Yuan (1794-1857) argued in his "Illustrated Treatise on the Maritime Nations", that great empires such as Rome thrived, because they were studying Greek literature, meanwhile at the same time producing own literature. Here, British missionary Joseph Edkins (1823-1905) offered a great platform for comparing a transformation of literature. In his monthly magazine Shanghai Serial, an opportunity was given to compare the Western and the Chinese concepts of literature. Assigning high hopes to education, some authors even made literature a core pillar for rescuing the Chinese nation into modernity as emphasized by Liang Qichao in his essay "On the Relationship between Fiction and the Government of the People, 1902." Especially the novel "Chance meeting with beautiful Women" inspired the Chinese intellectual to pursue his mission.

The novel tells the story of four women from Japan, China, Spain, and Ireland, who randomly meet in Philadelphia, just to oppose the powers of modernisation. Despite different cultural backgrounds, all heroines, calling themselves "loyal subjects of fallen dynasties", have in common, that they are outstanding individuals pursuing a modern political agency of saving their nations from imperialism. In 1902 Liang established the journal "New Fiction" for the promotion and expansion of the Chinese fictional repertoire. Through literature, Chinese people should be equipped with the necessary mental tools for the transformation of the Chinese nation on their path to modernity.

In his writing endeavours Xu Nanci acknowledged the fact, that educating his compatriots in scientific methods was less attractive than assumed. Therefore, he figured out: "There are many in the world who dislike reading about science, but none who dislike reading science fiction." A core message of science-fiction was to make scientific achievements and knowledge available to classes with less access to education. "Since science fiction conveys knowledge without boring the reader, it helps to dispel superstition, reform thoughts, and aid civilization". Nevertheless, the delimitations between what is considered science and what is considered spiritual were not fully clear during that time. The technological transformation was associated with a spiritual renovation, creating new people, new bodies of citizenry for a modern, enlightened nation.

Therefore, it was a common theme of the late Qing period to depict China as a fragile old man, in dire need of a youthful renovation to gain new vitality for the modern times

THE FANTASTIC JOURNEYS OF MR. ABSURDITY AND BARON VON MÜNCHHAUSEN

Being on the brink of modernity the body of Mr. Absurdity travels to the center of the earth, where he meets 9.000 years old Huang Shizu, proclaiming to be the father of the Chinese people. Like Mr. Absurdity himself, he seems to be a scientist "very well versed in the science and practice of chemistry", but simultaneously presents himself as a sort of sorcerer. Carefully watching his descendants above, the First Patriarch, as translates his name, is dismayed, when Mr. Absurdity shows him a mirror of aboveground China being engulfed in a poisonous gas of lethargy. Immediately he rushes to a chamber full of bottles. Each bottle stands for the distilled dispositions of diverse types of people—revolutionaries and reformers, intellectuals, opium addicts, devotees of fame and fortune, and chronic invalids. Obviously, it could be expected, that the First Patriarch might find a scientific solution for the right mix. Disappointingly even Huang Shizu falls asleep during his experiments, joining his offspring in their stupefying slumber. An awakening enlightenment seems to be far off.

At the same time, his soul travels through space. On Venus, the hero discovers a primitive nature resembling pristine periods of earth. Despite his scientific ambitions to become the founding ancestor of the Venus people, eventually, he decides to move on. At Mercury he discovers the transfer of a brain, rejuvenating an old man close to death. "Since the brain is in charge of all mental and physical activity, to replace the old brain with a new one would certainly result in overall rejuvenation, and could potentially serve the interest of the nation if performed on a special social group: the unrepentantly stubborn and conservative members of society". Disappointed by the lethargy of his contemporaries, Mr. Absurdity remarks, that when he returns home, he will set up an enterprise for "brain improvement" in Shanghai to rejuvenate the weak Chinese masses for modernity. Accompanying Mr. Absurdity on his voyage to marvelous worlds introduces the reader to different concepts of medicine, gravity or electricity. Eventually, after failing to reach the sun, his soul is thrown back to earth falling into the Mediterranean Sea, where he is reunited with his body. After being rescued by the Chinese Navy, he urges the ailing Qing government for inevitable reforms

Foremost the Western model served as a role model to emulate. A common element of Mr. Absurdity and Baron von Münchhausen consist in their fantastic journeys around the universe.

"Journeys sometimes play such a role in science, too, as metaphors for the transformation of states of understanding and thus as ways of moving from the conventional, accepted state to a previously unknown and thus extra-ordinary state. In the case of science, such a transformation might be viewed as progress in the advancement of knowledge, a move from an inferior or lower condition to a higher, superior one—from "profane" to "sacred." Nevertheless, meanwhile, Mr. Absurdity is equipped with superpowers, and Baron von Münchhausen must rely on the capabilities of technology. On the one hand, the goal of this novel is to make readers think about the scientific revolution. On the other hand, the author searches to teach the readers a critical reflection upon the limits of science.

THE TRIALS OF MODERNITY OR DIFFERENT PATHS TO MODERNITY

The movement of enlightenment in the West as the Chinese modernisation movement was dominated by a huge "epistemological optimism." Both agreed, that societies are capable for modernisation, if taught properly by well-informed intellectuals. Although both movements put a high focus on the aspect of technology, their sublime differ.

Central to the 19th century is the stive for modernity through technology yet based upon different conceptions about humanity and its role in the universe. From a Western point of view, since being thrown out of paradise in the garden of Eden, people are searching for survival. Nostalgic about this assumed past, mankind dreams to get relieved from the toils of daily work. For a long time, this ideal has been banned in the world of dreams, yet, with the invention of ever more powerful machines, "man will be able to regain Eden by rebuilding its conditions" Consequently, through technology people are approaching the almightiness of God, as emphasized with the title "Homo Deus" by Israeli historian Yuval Harari. In contrast to that, the Chinese tradition did not put an emotional value on technology. That does not imply, Chinese conception would have been hostile against technology, yet, that new tools were just considered according to their immediate ends. Otherwise, Chinese philosophy assumes that there is no harsh dichotomy between man and nature. Harmony between earth, heaven and mankind can be kept through morality, thus, no need for an external "technology of salvation" emerged in China. Consequently, Mr. Absurdity stands as personification for the frustration for Chinese society's incapacity for technological modernization.

After the reunion of his body and soul, suddenly Mr. Absurdity receives the superpower of brain electricity (naodian 脑电). Due to his new powers he manages to produce light, sound, and heat as he can communicate with other through telepathic ways. Being aware of his new powers, Mr. Absurdity decides to establish a school in Shanghai for teaching this technique to others. Swiftly his scholars spread out, establishing new schools. Convinced by his success Mr. Absurdity feels encouraged for his mission to lead his people to a new enlightenment proclaiming himself as the "the greatest teacher of all time". However, due to the spread of the brain electricity technology other companies such as telecommunication, illumination, or energy providers go bankrupt, leaving about a third of the people jobless. Therefore, besides his ground breaking invention Mr. Absurdity has to leave the city for the countryside. Despite his efforts to lighten his body as a call in hope for Western science to come to China his call remains unanswered.

Contrasting both traditions of superheroes technology is considered a force for liberation in both cultures. The difference lies in the objectives striven for. Superheroes in the West are searching for transcending the divine limitations of their capabilities. Despite all the efforts "playing God" eventually the heroes as an individual must acknowledge its limits. Being a victim of fate in the Western narrative is grounded on transcendental roots. Taking Faust as a prime example, even knowing almost anything, he has to admit to the divine plan with his soul being saved. Put in other words, a Western concept of a hero tale is the description of an individual searching to overcome its limits, from being a victim to becoming a master of your own fate. Standing in contrast from a Chinese perspective the status of victimhood is not something grounded in transcendental roots, like celestial incidents. More precisely the concept is grounded in the historic events of the proclaimed "century of humiliation". Heroes and their stories are based upon a picture of the past, with a nation nostalgic about its status as a "Middle Kingdom, longing to recover through technology a purely immanent role in the world by escaping the status of victimhood." In this mind, the status can not just be reverted, but, there is even a necessity for the Chinese society to change their global status.

Conversely, to the Western superhero of an individual searching for his mission, the Chinese word for hero 英雄 (yīngxióng) consists of the word 英 (yīng), translated as the best-grown plantlet and 雄 (xióng), translated as the strongest individual in a herd. In this context, a hero is never an individual but someone sacrificing him/herself for the common good of the community. The Chinese word 名人 (míngren) refers to the concept of celebrity. Ming can be understood as fame or reputation and ren, the person disposing of it. Thereby, the purpose of ming is to rectify things. "If the ming is straight, there is order;" "rectify the ming, thereby order the things;" "rectify the ming, improve the law, then there is no annoyance for the governors." According to its functionalities, every person in the government gets a certain role assigned to the emperor providing the highest ming. In general, there are three traits of celebrities. First comes the emperor having the monopoly of the ming. Second, there are actors from various fields, that reenforce the ming of the emperor. Eventually, in the third row, the emperor glorifies some ordinary people as celebrities, serving as a role model for peers to remain obedient to their assigned position.

Despite his superpowers Mr. Absurdity must acknowledge the limits of his societal position, failing as a superhero not due to technology, but trying to excel over the community in a desperate attempt to change their status quo.

BECOMING THE MASTER OF TWO WORLDS OR BETWEEN THE EAST AND THE WEST

If Mr. Absurdity would return to contemporary China, he would be astounded, that his call was answered by politics. Since 1990 the People's Republic of China has undergone a dynamic change, that keeps holding on. Reflected in the educational system, curricula encourage the student to learn more about foreign countries and discover the world around them. As discussed in the previous section superheroes serve as guides for coping with those change progresses, as the popularity of the Marvel universe in China reveals. With the Chinese audience growing in 2019 the movie Avengers Endgame produced by Marvel Studios scored more than \$614 million at the Chinese box office and became the highest-grossing Hollywood blockbuster in China's theatrical history. Superheroes and their stories are booming worldwide supporting their fans in their process of sense-making. Popular Culture such as superhero stories is an expression of the collective experiences made by a society.

They help to "see underneath the surface – of our society, our technology, our kitsch – and identify new wellsprings of energy, technique, and faith", or in other words a dialogue about where people and their communities make sense of the world, who they are and want to be.

Throughout the Comic Store several representatives of national superheroes can be found. Among them are Trachtmann, Captain America or Captain Europe as Captain China. Comparing those characters reveals a lot about the own perception of a culture as it perceives itself, as how it wants to be perceived by other cultural lenses. Trachtmann serves as Bavarian superhero, gaining his powers from drinking beer, meanwhile defending himself with a dumpling gun. Travelling through Bavaria his mission is to protect the Bavarian way of life against foreign influence, mostly from Prussia. During his journey, Trachtmann visits several cities and regions in Bavaria, providing some marketing for these areas. "

Despite being considered rather a parody his adventures gained some fame as they are now available in Bavarian, German, and English, as even the first edition was published in Japanese. Probably the most famous one is Captain America. Evolving from a weak introvert into a super soldier emphasizes the American intention of fighting for the good of humanity. Since its invention in 1941, Captain America has gained popularity all over the world. Meanwhile, the hero remains loyal to his country, he starts to doubt about his commanders, seeing corruption everywhere. Suddenly, from fighting Nazis during WWII, "the new villain is the very country he loves and protects". Superheroes serve as public educators as shown in the case of Captain Euro. During the introduction of the Euro in 1999, erroneously created by a British studio, the intention of Captain Euro was to educate young children about European identity. However, after only two editions the project was suspended again, as the project was conceived overly didactic and educational. Here, despite the intention of showing the diversity of Europe, the Comic remained rather a collection of stereotypes. As the question of a common supranational European Identity supplementing the national identity is still discussed, no successful common hero of reference could be found with that hero. Looking further at national superheroes leads to the question: "Why we can't have a Captain China?"



Figure 2 Trachtmann and Captain China as symbols of national superheroes and satire

Since ancient times myths have been an important part of Chinese culture, starting with the worshiping of the ancestors, spirits, and deities. Often history and myth are blurring within the Chinese context. Concepts of "hero" are an important part of patriotic education. Admittedly recently a Captain China was presented, yet the success of this new superhero seems to be rather modest. Despite the passion for heroes, according to a post raising the question of a Captain China it is argued, that: "The best a Captain China could hope for would be a job as a Beijing policeman". This can be explained by the effective governance of the Chinese Communist Party. "Heroes have been constantly created, not only as a means through which ideological messages can be conveyed but also as officially desired role models for the rest of the citizens to emulate". Different, than in the Western context, where celebrities are based on a "governing consensus" between those who govern and those who are governed, in China this used to be a one-way street. Besides being governed, ordinary people" must also learn to govern themselves by adopting virtues such as obedience, loyalty, self-sacrifice, and self-enterprise as exemplified by different celebrities".



From that perspective, Captain America gives the Chinese audience an insight into a different kind of experience and cultural thinking. Doubting about the government seems unthinkable in the Chinese context. Therefore, a Captain China, identified as a superhero excelling outside the protection of China's government seems absurd. Especially young Chinese in modern China are confronted with a variety of pressure not just from the political system but fulfilling societal expectations like successful careers and marriages simultaneously. Escaping to the fantastic worlds of superheroes serve as a path to temporary relief, although this stays an illusion. Hollywood movies open a screen window into another alternative worldview.

The success of Marvel Comics stands for hybridization of cultures, revealing, that: "we live in a world where "the global flows of goods and information are increasingly multilateral and decentralized". Astoundingly appealing mostly to a male audience in the USA, about 45% of Chinese fanbase is female, with more than 60% of merchandise bought by women.

Surveys of Chinese fanbase reveal, that the attractiveness of Marvel Comics is based on the universality of its values, such as love, loyalty, courage, and self-realization. Furthermore, being a fan of Marvel mostly comes along being a fan of Manga. Both worlds are converging into one here, contributing to a vivid scene of alternative fiction written by the fans. Looking back in 1961 Stan Lee, the founding father of the Marvel Universe got the task to create a new world of superheroes. His boss, Martin Goodman, suggested simply mimicking the DC universe with Superman, Batman, Wonder Woman, and the Flash. But Lee disliked the idea of characters, that were characterized by a simple setting: "Swoop down, save day, retreat, repeat!" Contrasting the omnipotent heroes, Lee took "extraordinary people, put them in extraordinary circumstances, and then have them behave like ordinary people." Strikingly aside from their superpowers, Lee allowed his characters to have a certain vulnerability. Thinking about Professor X disregarding his telepathic powers he is bound to the wheelchair. With Professor X and the X-People born differently, their special capabilities as homo superior are conceived as a threat to homo sapiens. Therefore, Professor X decided to establish a school for one the one hand protecting mutants, meanwhile on the other hand teaching them, how to use their superpowers in a responsible way.

Searching for a peaceful accommodation within the human society, the endeavor of the mutants reflects upon the search of everybody, to find its particular place in the world. Referring to the educational benefits: "superhero stories are necessarily pedagogical because, like other forms of literature, superhero narratives reveal values, follow logics, and make argument". Disregarding the academic or cultural background superhero narratives can inspire readers to think about their values, norms as those stories let people reflect upon their desired identity and their relationship with their social environment.

Often it seems that the closer cultures are approaching each other, the more distant they seem to become mentally. Stan Lee lies provides a valuable conclusion in the search for approaching the unknown, that is often seen through the eyes of fear: "That seems to be the worst thing in human nature: We tend to dislike people who are different than we are". Consequently, defining a superhero is largely politics of defining who "we" are. Superheroes contribute an essential part in shaping a common identity. "As a consequence, "we" is defined as a community that shares the same "hero" to love and worship".

LOOKING OUT FOR A NEW SUPERHERO OR A NEW MISSION FOR THE FUTURE

"Historically, the stories of superheroes have been intimately interwoven with science and technology". Both concepts share the hope for improving societies with superheroes serving as guides to help people in coping with change. The Covid pandemic and the search for a vaccine have shown the power of scientific capabilities. Nevertheless, besides academic debates, the world of popular culture offers an addition to the role of science in societies on a path to a new future still unforeseen. "Super-hero comics incorporate the same tensions that inform academic discussions and as such, they should be seen as just as much a part of the collective working out of the questions and problems raised by modern science. This working out involves us all; in this, we are all the experts". Obviously, new fancy technology emerges every day with a scientific revolution going fast as never before. Simultaneously, many seem to be lagging behind the abundance of technological capabilities and the promises they might offer. Many recent technologies are not understood anymore.

However, the stories of superheroes tell us, that technology is not everything. As shown with Faust or Mr. Absurdity, people consist of a rational mind, that is searching for knowledge and a spiritual soul, that is emotional and eager to dream.

Concluding this journey into the world of superheroes, the Italian psychologist Vittorino Andreoli provides an important final message.

Besides being a homo sapiens sapiens, searching what can be known, mankind should relearn becoming the opposite of a homo stupidus stupidus. Disregarding all the wonders of science and their complexities, superheroes help us, not forget, to be amazed by the wonders the world and human culture within offer to us. Despite all their knowledge and scientific efforts neither Mr. Absurdity nor Faust manages to fully educate their people. In the end, all of them must acknowledge, that there are certain boundaries, either given by nature or by society, leaving space for emotions, fantasy, and dreams. Superheroes are an expression of common experiences made by society, talking about events of the past and expectations for the future

More, than technology or superpowers those heroes are defined by their search for identity. Here, different conceptions of society find their expression.



Meanwhile, Captain America is based upon the American Identity of an individual searching to overcome its boundaries for the common good, in the case of Captain Euro, there was no supranational identity the audience could identify with. In the case of Captain China, individuals excelling in the common consensus and order do not fit into the cultural tradition. Looking back, the story of Chinese superheroes began with China lagging in technology. Looking forward, China has been catching up with many technological leaders contributing to the search for China's position in a globalised world. At the beginning of the 20th century, Chinese intellectuals were focussing on learning from the West. During that time, the Western perspective on progress was dominant. In the 21st century China has undergone a tremendous change, having become a part of the global world again, willing to contribute its perspectives on the future development of a global society, which will be connected through the powers of digital communications.

Nowadays "learning about the world entails learning about China in the world". Reflecting upon the history of progress, besides technology and research, the history of future will be written by those, who manage to tell the best stories about a future that is yet to come.



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POLITICO-DIGITAL MANIPULATION ACROSS THE EU

JEYHUN ALIYEV



Why a Whole Society Approach should be Implemented against Soaring Electoral Deception on Social Platforms

Opportunists have tried to exploit the media element since the invention of simple mass communication tools such as newspapers or radios. This has been true for both democratic and authoritarian regimes, and these days everybody seems to succumb to the fact that it is inevitable not to spend a day without receiving fake news or manipulation. Recently, television has been replaced in this vicious circle by social platforms. It has gained this infamous momentum in the last decades with the invention of Facebook, Twitter, Instagram, and many more. Antagonists, extremists, pro-Kremlin activists, terrorist organizations, even including the legitimate governments spend a great effort to manipulate people on social platforms. It might come as a no surprise to many, however, each day the threats posed to democracies are increasing tremendously. These developments seem to be beyond the capability of human's comprehension.

Nowadays, cutting-edge technology firms, individual data brokers, etc. are employing the latest artificial intelligence to grab people's attention. As a result, even the most sophisticated governments experience setbacks in investigating the harms or causes of disinformation. There are numerous categories in the digital manipulation field, and scholars find it difficult to draw the lines amongst them, or to inform the citizens which one is the most dangerous practice. For example, some scientists have stressed the need to emphasize the electorate's awareness in the face of fake news, while others urge them to take an action against the long-term issues and to protect the vulnerable users of social platforms, especially the younger generation.

The first part of this article will focus primarily on the background of the problem and the recent policies that the EU implemented to battle the issue. The drawbacks to execution will also be the essential component of first part. In the second part, the literature on success stories will be explored. Especially, practices of some Nordic countries will be the main focus. Most of the references on this topic usually argue for top-down intervention, and few do this for bottom-up emancipation. It is more logical to adopt a whole society approach to combat deception on social media. This strategy includes governments, media tycoons, businessmen, journalists, local councils, civic society, and many others.

THE BACKGROUND OF THE PROBLEM

In the contemporary world, it is a rare case that people with high influence would again try to scrutinize almost all the tv programmes or other media means and figure out how they will affect the citizens themselves (e.g., Berlusconi). In fact, it is very demanding to learn the algorithms of social platforms, even more for artificial intelligence. Because of this, they are well aware that special public relations companies must be employed to portray the public policy façade of the enterprises, political parties, etc. Otherwise, experts on social media campaigns can defeat the opponents easily.

According to the Oxford Internet Institute, social media manipulation is prevalent around the world. It is considered a major battleground for political parties. Research results pinpoint the computational propaganda around 82 countries. Some of the most known forms are abusing sensitive information, inauthentic engagement or "cyber troops", and deceptive advertisements.

Nevertheless, recent improvements in data analytics have made privacy issues less popular than before. Sensitive information of users such as race, gender, sexual orientation can easily be accessed by particular public firms. The Cambridge Analytica Scandal illustrated that if data brokers could collect data from few thousand people by micro-targeting, it would create a cascade effect on their circle of social friends, thus, they could reach private information on millions of voters in any country (Nestola, 2019). This once again proved that the majority of us are vulnerable on social media no matter how prepared we think we are. Thanks to the whistleblowers, the Cambridge Analytica was exposed. Otherwise, media conglomerates work on schemes, algorithms, that are close to impossible to detect problems or guilty people in the case of misinformation.

The secretive experiments by the NATO StratCom have revealed that buying inauthentic engagement so that it would make other people think the topic is trending is very affordable and effective. Actually, the experimenters spent just 300 euros to receive 323 202 views, 9690 likes, etc. on large platforms. The tests proved that giant social platforms are trying to detect and prevent cyber bots, but the measures are much slimmer than the improvements in cyber frauds.

Another problem is the deliberate abuse of advertisements on social media. Although most discussions revolve around the use of marketing practices and their manipulative techniques, political parties advertise twisted facts too. Often, they are immune even according to the law on their grouping or intentional polarization techniques. For example, they have the right to access electoral registers, and motivate specific segments of society on the grounds that they had shown inclination towards the party ideology before (attending in their seminars can count as such, which is debatable). Even though the intention can be perceived as democratic (to engage with their potential voters), it is mostly done without the awareness of social media users.

Advertising can be activated on social platforms without major restrictions both by local officials and social platforms. This poses a very serious threat. Neo-Nazi parties such as Der Dritte Weg proved to be the classic example of this. They can reach more audiences lawfully by advertising. They were sued many times for their open challenge to the constitutional structure in Germany, however, the German courts could not ban them since according to the law, such parties have to be in the power of overthrowing the constitution.

THE RECENT POLICIES BY THE EU

Each successive European election is said to be the most manipulative election by the news and public. Hence, most of the policy and law-makers have already acquiesced that they stand a slim chance to defeat new elaborate hacks in the elections. Above mentioned cases occur when AI is a means to take advantage of the psychological decision-making vulnerabilities of citizens. They can also stimulate the process with targeted ads. Thus, it is against EU citizens' fundamental right to human dignity.



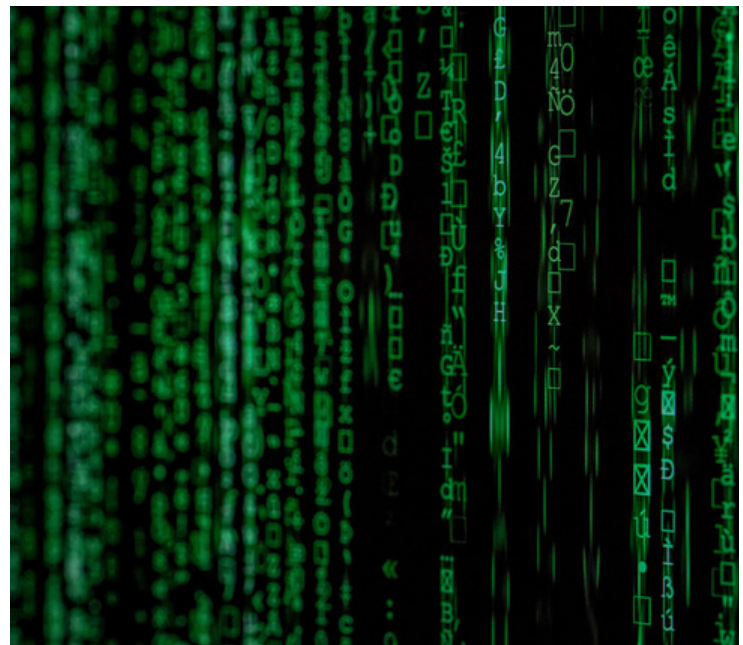
It is notable that authoritarian governments have also suppressed their political opponents by using a pretext to restrict manipulative social media. Therefore, it is an enormous challenge to keep a delicate balance between what is democratic and what is disinformation in law. For that purpose, the Unfair Commercial Practices Directive of June 2015 tries to define the borders between highly persuasive and manipulative advertising:

"The Commission proposes that the presence of the following factors may make commercial practices manipulative: 1) targeted persuasion tactics based on learning from aggregated data; 2) continuous testing and learning on consumers; 3) opaqueness of the two previous factors; 4) lack of full knowledge of the consumer."

In recent years, The European Commission has proposed three regulations in order to combat digital manipulation. They are the Digital Services Act (DSA) (December 2020), the Proposal for a Regulation of the European Parliament and of the Council on the transparency and targeting of political advertising (November 2021), and the AI Act (April 2021). Following paragraphs will only mention prominent features of these regulations because of the focus and scope of the research.

Firstly, political agreement on the DSA was only reached in April 2022. It has to be formally approved by the 27 governments as well, thus there are around a year for the full implementation of rules across the EU. It categorically rejects the interference to the user's data without their conscious agreement, and has harsh sanctions for the breach of laws.

There was a sense after adoption of these laws that manufacturers of fake information could always bypass the laws, by mentioning their indirect causes for harmful effects. In April 2022, The European Commission's newly elect President Ursula von Der Leyen tweeted on the political agreement of DSA and asserted again: "What is illegal offline, should be illegal online".



The second proposal on the transparency and targeting of political advertising is pioneering the protection for some of the individual rights on social platforms. Examples include cross-border data sharing among services on individuals and specific obligations on the sponsors of political advertisements.

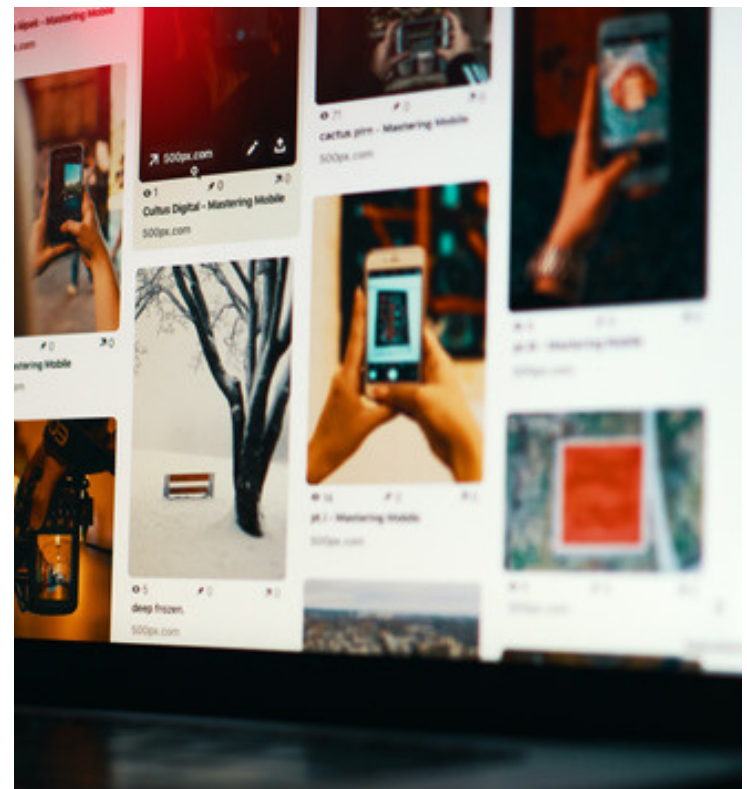
The AI Act has more technical requirements, therefore, it seems to be the least trackable in case of the breaking rules. As micro-targeting is allowed with the Act, advertisers can constantly refer to users who did not want to be aligned with the other ideologies in the first place, thus manipulating them into a particular behavior.

Action Plan for Democracy (2020 December) was a policy step to make citizens resilient. It highlighted election fairness, media freedom, and methods of countering disinformation. A closer look at every three components can show that the election fairness clause supports political parties, media freedom does the same for journalists, and countering disinformation is more about civic society. This description matches a whole society approach; however, the first reports of policy will be available only in 2023.

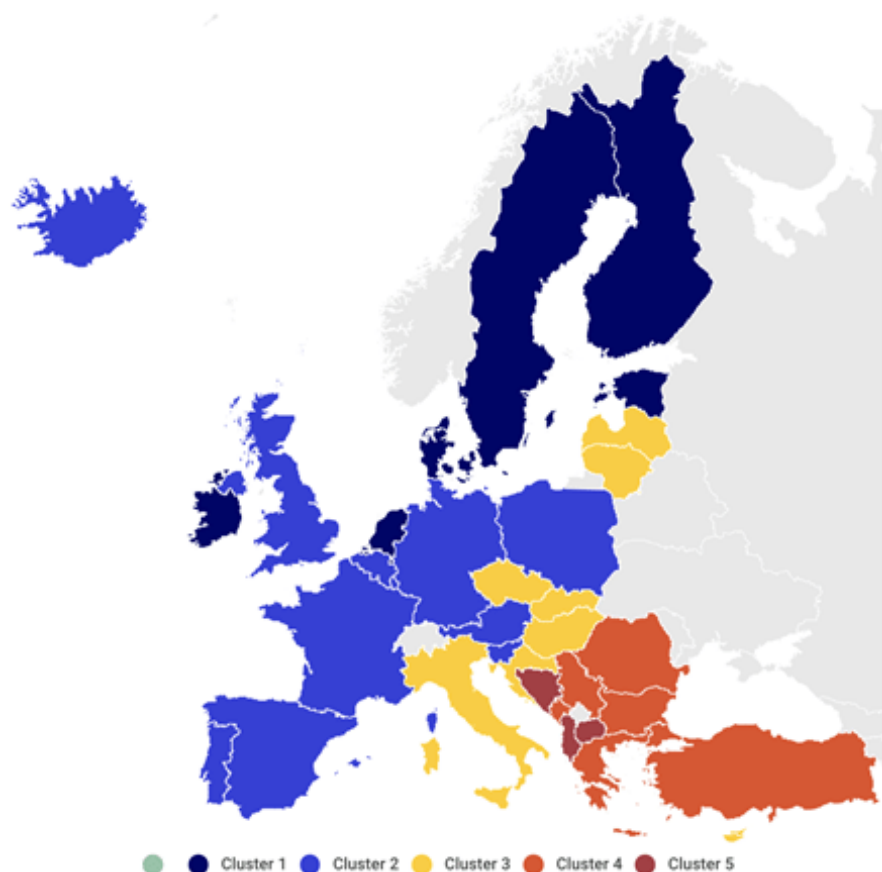
SUCCESS STORIES- KEY LESSONS

Promotion of media literacy and establishing inclusive press councils countrywide can prevent manipulative tactics on social platforms. On this occasion, every member of society will enjoy the educational resources and bear the responsibility to stop the devious use of communication tools.

Nordic countries have the highest international reputation for their social media resilience as they are the most media literate and alert to disinformation according to the Freedom House and Reporters Without Borders. The reason behind it is that they engage more cross-societal approach and their media policies are inclusive for almost all members of community. Together they can counter the media discrepancies more effectively and faster



Cluster analysis



For example, the map depicts the recent 2021 cluster analysis results by the Open Society Institute, Sofia. Nordic countries continued to rank first in media literacy index 2021 as in previous years.

Open Society Institute,
Sofia - March 2021



In many cases, media classes are only taught in bachelor's degrees. Nonetheless, Nordic countries have included critical thinking and information literacy classes in their high school curriculum. Especially, Finland has made the most progress in the last decades. This is partly due to the 2014 war between Ukraine and Russia. Finland rapidly improved its digital capacities to tackle Russian propaganda and around the same period numerous seminars were held in public places.

Additionally, press councils of Estonia have been renowned amongst people from different walks of society.

They hold sincere discussions on issues that matter to diverse sides and try to inform the media community about possible dangers.

CONCLUSION

The EU as a whole set the example for other democracies not merely in its neighborhood, but around the globe. In this contribution several legislative measures and best practices were discussed, how Europe searches to serve as a role model of a democratic digital space.

Consequently, it has the utter responsibility to impose deterrent and practical policies against manipulative tactics on social media. As of the future research, financial variables can be employed to evaluate the actual efficiency of the policies by European governments in combating disinformation. Comparative analysis can lay out more ideas about policy effectiveness in each state.

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HYBRID WARFARE IN THE CONTEXT OF THE SECOND KARABAKH WAR BETWEEN ARMENIA AND AZERBAIJAN

TOFIG SHAHNIYAROV

INTRODUCTION

The concept of "hybrid warfare" has gained importance over the last years, as we have witnessed an increased number of armed hostilities in Europe and beyond. However, the controversy around the meaning of this concept is more appealing than ever among the Western authorities, mainly for two reasons: firstly, the initial notion of the concept of 'hybrid warfare' lacked some new elements when it first appeared in the scholarly debate, secondly, the concept was adopted in accordance with the subject matter of each case. As each new case emerges over time, the need to clarify the term "hybrid warfare" to make it useful has been a challenging task not only for scholars but also for analysts and practitioners.

This paper aims to explore the term "hybrid warfare" by looking at the exemplary case of the second Karabakh war and the lawfare arising out of this war between Armenia and Azerbaijan that occurred in 2020.

To this end, it will first provide clarity in terms of conceptualization of the concept of the term and will further proceed with the specific war in which this term, arguably, can be elaborated.

MISUNDERSTANDING OF THE CONCEPT

Before clarifying the concept of "hybrid warfare", it is important to consider historical developments relating to this term. The term first appeared in the article "The Rise of Hybrid Wars" written by the US military officials in 2005 and was then reformulated upon Russia's annexation of Crimea in 2014. Like other new terms, the term 'hybrid warfare' has received significant criticism because of the lack of clarity. Because the meaning of "hybrid warfare" shifted from merely observing the enemy, it began to focus on the scope of each case.

Today's understanding of the term largely relies on the western concept, which allegedly cannot respond to some "broader security and defence challenges"

It is for this reason that, so far, there has been no consensus among scholars about what 'hybrid warfare' exactly amounts to. According to some authors, the concept of "a catch-all phrase or a buzzword with limited analytical value" is not anything distinctly new. The meaning of the concept has moved from conventional war methods which involve "lethal or kinetic force" to new methods such as "psychological or information-related aspects" (Bilal, 2021). From the viewpoint of NATO's officials, however, the term is used "as a tool for strategic communication rather than a military concept" To put it simply, the term 'hybrid warfare' entails traditional and non-traditional ways of conducting war, including but not limited to the "special forces, local armed actors, economic clout, disinformation, and exploitation of socio-political polarisation"

The problem in the Western approach largely derives from the conceptualisation of "war" itself - what it is and how the war threshold should be interpreted. It lies very much in its political nature and instrumental character within the perspective of Western understanding of the term "war".

The lack of clarity in the concept of 'hybrid warfare' then depends on how to clear an understanding of the war is in the different spheres, which characteristics it entails, and most importantly, its meaning for the "distinctions between peace, conflict, and war"

Apart from that, "war" is also perceived as "an act of force to compel our enemy to do our will" by some authorities, and it makes the need to clarify the meaning of "force" further. It should be noted that "hybrid warfare" is much more than using force (in other words, "warfighting") but less than "grand strategy". The latter refers to all means and tools used before, during, or after the war.

OVERVIEW: "44-DAY" WAR

Early in the 1990s, the war between Armenia and Azerbaijan that culminated in the forced emigration of almost 750,000 Azerbaijanis led to Armenia's military triumph and occupation of Upper Karabakh and seven surrounding districts (the "Occupied Territories"). Nearly a million IDPs experienced systematic and pervasive human rights violations during the succeeding three decades of Armenia's military occupation, including the right to property in the Occupied Territories. The UN assessed that the occupation by Armenia had caused Azerbaijan a total economic loss of \$53.5 billion.

Some argue that the Nagorno-Karabakh conflict between two Eastern Partnership countries - Armenia and Azerbaijan - in the South Caucasus is one of the examples in which extended use of modern military arsenals such as drones and heavy weapons and a mix of "hybrid warfare" primarily interacted with each other. The 2020 war involved worldwide attention to the matter, and things turned out to be globally attractive in terms of contemporary methods of war threshold.

Following the so-called "44-day war" over the Nagorno-Karabakh and surrounding districts which are internationally recognized territories of the Republic of Azerbaijan (UN SC Resolutions 822, 853, 874, 884), Armenia and Azerbaijan signed a Russia-brokered ceasefire agreement. The war ended with Azerbaijan's victory, following the modern warfare tools both through conventional and non-conventional means between these countries. Hence, many argued that "hybrid warfare" is a real concept involving not only heavy military pieces of equipment but also cyber-attacks, seeking out "lawfare" before the international courts, information propaganda, and so on, due to this war.

The Second Karabakh War was widely covered on social media, providing a large amount of publicly sourced information in the form of a large number of videos, photographs, satellite images, and analyses.

The information circulated on social media highlights not only the ongoing military operations but also the composition of the Armenian occupation forces, their locations, military bases, command and control structures, weapons used and its attacks, which are necessary to assess its ability to effectively control the occupied territories. The increasing use of new digital tools, such as open-source intelligence offers a new avenue for gathering and presenting evidence establishing the occupation military in the new digital era.

Since this war has been a significant reference point for many to clarify the concept of "hybrid warfare", the term has again gained the attention of the international community after the occupation of Crimea. Due to the popularity and well-suitability of this war to the definition of "hybrid warfare", it will be analysed how it was formulated in this regard.



LAWFARE WITHIN HYBRID WARFARE?

Today states use all available means at their disposal to win over the enemies that could be otherwise to the detriment of the acting state. In this regard, the three-decades conflict between Azerbaijan and Armenia is not an exception as it involved not only military clashes or violations of the ceasefire agreement signed in 1994 but also further led to mutual information war as well as lawfare using the international court. .

One of the notable cases that had been in the jurisdiction of the ECHR has been the case of Chiragov and Others v. Armenia. The case concerns the displacement and violation of human rights of six Azerbaijani-Kurdish families and other subsequent cases. The Court uses the effective control test to determine whether a member state - Armenia - has positive or negative obligations to ensure human rights undertakings and if it exercises authority outside of its territory (such as through military occupation). In this regard, the Court's rulings regarding the dispute between Armenia and Azerbaijan have largely remained consistent. For instance, the Court established Armenia's extraterritorial jurisdiction in the Occupied Territories by virtue of its effective control in this case concerning the protection of the rights of the applicants.

Effective control was demonstrated by the "high integration" of Armenia's military, economy, political, and legal realms as well as a local government and "military support."

Another example of lawfare within the context of "hybrid warfare" is requested interim measures under Rule 39 of the European Court on Human Rights from the conflict parties on September 27 and October 27, 2020. These interstate applications contain widespread infringement violations by the respondent States during the "44-day war". On January 15 and February 1 2022, the Court received the complete applications in the inter-State cases Azerbaijan v. Armenia (no. 47319/20) and Armenia v. Azerbaijan (no.42521/20). The alleged acts of violations include the indiscriminate attacks on civilians and public property and infrastructure, execution, ill-treatment and mutilation of warriors, consequences of the detention of prisoners of war, and forced relocation of civilians in the areas affected by the war. Azerbaijan further submits that Armenia is responsible for the Convention violations occurring in Nagorno-Karabakh and surrounding territories since 1992, including the prosecution and displacement of hundreds of thousands of Azerbaijanis from their homes and belongings; the ill-treatment and disappearance of Azerbaijani citizens without proper investigation; and the destruction of cultural and religious property.

Furthermore, the ICJ - the principal judicial organ of the United Nations - received a request for the indication of provisional measures from both countries concerning the violations of the International Convention on the Elimination of All Forms of Racial Discrimination during the year 2021. The ICJ granted five provisional measures; four against Azerbaijan, one against Armenia, and one against both states (Green, 2021).

All of these cases at the disposal of international courts show that the 2020 war has not just comprised traditional tools of "warfighting"; it also covered much beyond the scope of what has been perceived as "hybrid warfare" by the international community.

CONCLUSION

While the term "hybrid warfare" has lacked conceptual clarity over the last two decades, it is commonly understood under international law that the notion captured not only means of warfighting but also a great magnitude of activities. This article provided a clear scope of the concept by looking at the specific war situation between Armenia and Azerbaijan. The "44-day" war proved "hybrid warfare" to be a real and globally applicable concept as a mixture of traditional and non-traditional tools of conducting war.

The article mainly focused on the lawfare - interstate applications before the ECHR and ICJ - within the context of "hybrid warfare" throughout this war. All in all, the scope of the term "hybrid warfare" is much larger than one perceives, but it is not as much as a grand strategy, given its certain aspects such as spreading information, making cyber-attacks and making lawfare.

ABOUT THE AUTHOR

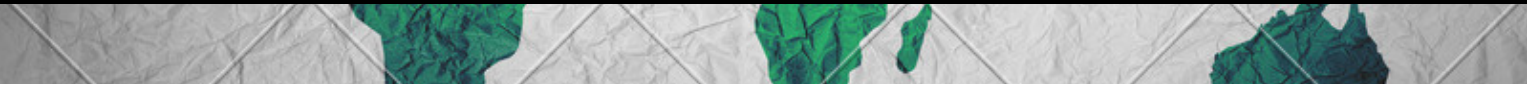
Tofiq Shahnizayrov is a senior student of master of public administration and graduate research assistant at ADA University (Azerbaijan). Earning his bachelor's degree in law at the Public Administration Academy under the President of the Republic of Azerbaijan, he is currently working on EU-funded research projects in Azerbaijan. His main research interests are public law and international law.





CORPORATE EUROPE'S BIG FALL IN TECH

JOSEPH NDONDO



The 4th and 5th Industrial Revolutions will undoubtedly continue to see technology spread its tentacles in all sectors of the global economy: from farming, space exploration technology, education, to even social life in all its various forms. We all got a glimpse of this new reality during the COVID-19 pandemic, when many sectors started to depend on technology to ensure business continuity amidst the lockdowns set in place by many governments as a way to curtail the spread of the deadly SARS-CoV-2 virus. Technology transformed from being just another sector into being a necessity.

One of the most recent topical issues in technology has been the Metaverse. The Metaverse concept is not new, however it was recently hyped when Facebook changed its corporate name to "Meta" to signal its re-envision on the next generation of the Metaverse technology. There has been much controversy surrounding the metaverse as a hypothetical future of technology.

The Metaverse is considered as the next evolution of the internet. Global tech companies, mostly from the United States, are mobilizing resources towards disruptive technologies such as the Metaverse. Microsoft, Epic Games, Meta and several other companies have recently formed a standards group for "metaverse" tech. While US companies have accelerated in technological advancements, this has not been the case in Europe. A research recently carried out by McKinsey on ten transversal technologies, found that Europe was leading in only two out of ten transversal technologies. Transversal technologies are technologies that have the strongest links with other innovation topics. They are key technologies that constitute a major stake to public decision making.

McKinsey's survey included a total of 2000 companies from the United States and Europe, with a revenue exceeding US\$1 billion. Assessments were done using the McKinsey's Corporate Performance and Analytics Tool (CAPAT).

The survey revealed that European companies were lagging behind when it comes to transversal technologies.

The United States and China are leading in the other assessed transversal technologies, strongly indicating how the tech sector is currently a two-horse race between the US and China.

Ten transversal technologies are permeating horizontally across almost every sector.

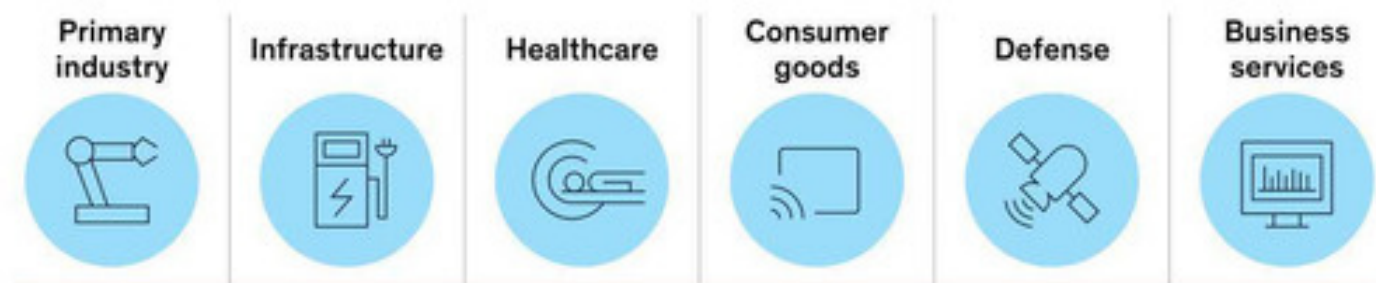


Figure 1: Transversal technologies (McKinsey & Company, 2022)

In addition, McKinsey's research also revealed that European companies spend 40% less on R&D as compared to their US counterparts. Much of the difference was observed in Information, Communication and Technology (ICT) and related industries. The ten transversal technologies that were assessed were Process automation; Future of connectivity; Distributed infrastructure; Next generation computing; Applied artificial intelligence; Future of programming; Trust architecture; Bio-Revolution; Next-generation materials and Future of clean-tech. As mentioned, European companies only led in two of those ten technologies: Next generation materials and the Future of clean technologies.

In Quantum computing, for example, 50% of the leading ten companies were all from the United States, while 40% were from China. The United States dominated as well in Artificial Intelligence (AI), with 40 % of external funding. On the other hand, China leads in 5G technology, with about 60% of external funding in this area.

It is an open secret that the global future of the economy will undoubtedly continue to be dominated by technology, whose dominance was, in part, rapidly accelerated by the COVID-19 pandemic. There seems to be so much value at stake in terms of growth, sustainability and inclusion, when it comes to investing in technology.

European companies however, have found themselves on the backfoot despite these predictions. Because of this, Europe's companies may miss out on the projected windfall which is estimated to be around €2-4 trillion annually. This equates to about 30-70 percent of Europe's forecasted GDP growth (2019 and 2040). It remains to be seen whether Europe's story around technology will continue to be one of unrealized potential.

Europe's policymakers, decision makers and corporations need to radically change strategy and tact in relation to Europe's technological capabilities and competitiveness. One area that needs attention with regard to technology is about Europe's regulations and policies. Europe's tough and patched rules have tended to stifle innovation and expansion, according to leading European Industrialists. Most industrialists agree that Europe needs to review its regulatory framework and permit procedures and policies in order to promote more innovation. Key industrialists are of the view that United States companies enjoy more flexibility and ease of scale-up due to an enabling environment across the Atlantic. One CEO of BASF, a German multinational chemicals company, characterized Europe as being "slow and complicated".

Further to this, Europe appears to be lacking fast-growing global technology giants as is the case with the United States which boasts the likes of Google (Alphabet Inc.), Apple, Meta (formerly Facebook), and Amazon, or China which has Huawei, Alibaba, Tencent, Xiaomi, and ByteDance.

All in all, it should be highlighted that it is not all gloomy and doomed for the European companies or the EU as yet. European companies greatly fare well ahead of US companies in several areas such as high-quality educational systems in addition to having an open and connected large economy in Europe. What may be required of Europe as a short-term strategy is to aggressively reconsider technology as another important source of competitive advantage in addition to its already existing strengths.

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Joseph Ndondo is a Lecturer at Masvingo Polytechnic in Zimbabwe where he teaches Biology, Microbiology and Quality Assurance and Product Development. Previously, Joseph worked in Sales and Marketing for Atom Scientific Ltd, which specializes in the manufacture of specialist chemicals and reagents for life sciences. Joseph graduated with a Master's degree in Business Leadership from Bindura University of Science Education, in Zimbabwe. He also holds a Bachelor of Science Honours degree in Applied Biology and Biochemistry from the National University of Science and Technology, in Zimbabwe. He is an alumnus to a number of fellowships that include the World Youth Forum (Egypt), The Young African Leaders Initiative (YALI), the Mandela Institute for Development Studies (MINDS), the Friedrich Ebert Stiftung Fellowship and IVolunteer International Writer's Fellowship. You can contact him for feedback or questions on kunashe@outlook.com or joseph.ndondo@institutegreatereurope.com.

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IGE INTERVIEW: STEVEN FELDSTEIN



Steven Feldstein is a senior fellow in Carnegie's Democracy, Conflict, and Governance Program, where he focuses on issues of democracy, technology, human rights, U.S. foreign policy, and Africa. He previously served as the holder of the Frank and Bethine Church Chair of Public Affairs and an associate professor at Boise State University. He served as a deputy assistant secretary in the Democracy, Human Rights, and Labor Bureau in the U.S. Department of State, where he had responsibility for Africa policy, international labor affairs, and international religious freedom. Previously he was the director of policy at the U.S. Agency for International Development, and also served as counsel on the U.S. Senate Committee on Foreign Relations, where he oversaw U.S. foreign assistance programs, State Department management, and international organizations.

Interviewed by: Dyuti Pandya (Magazine Supporting Editor)

Dyuti: Thank you for joining me today, before we begin, I would want our readers to know what made you take an approach towards venturing into the interplay between technology and politics?

Steven: I think there are a couple of different ways to look upon the effects of technology and governance. On one hand, we have to be careful not to overstate the effects of technology, and in my research, what I have found is that often times the misuse of technology is predominantly linked to the underlying political system in place. So you have a political system that is democratic, where there is respect for political freedoms, where there is a robust rule of law then there tends to be particularly over time, a less of a tenancy for abuse, and on the other hand if you have a system that is authoritarian in nature, where you have a concentration of power and where you have lack of accountability when it comes to security forces, then the potential for abuse of technologies whether it is AI surveillance, or whether there is censorship is higher. In other words, there is a pretty strong link between technologies on one hand that can limit and circumvent additional freedoms and their actual deployment, on other hand based on the underlying regime in place. Now one thing that I would mention is as new technologies come online and as they are less understood in terms of their impact, you also have a risk that there will be an encroachment on different digital freedoms, that these technologies will be abused because a system has not caught up between law or policy, when it comes to regulation; a good case of point for this relates to facial recognitions searches, where you have a large number of databases that law enforcement agencies in democratic countries like the US rely upon to do searches and there is not a clearer sense of rules when it comes to privacy or when it comes to biases with those, when it comes to doing when our law enforcement authorized to actually conduct these searches and when they have to much more time-bound, much more discreet searches. These are kind of questions that overtime one hopes will become more settled as the law catches up, but at the moment, there are lots of questions about abuse.

Dyuti: Living in an age of constant misinformation, corruption, and echo chambers, how do you think the politicization of technologies in democracies will attempt to bridge this narrative?

Steven: Yeah, I do not know the answer to that question, and I certainly think that you are right in that misinformation and disinformation, echo chambers and so forth, present a real challenges when it comes to polarization in democracy but also in authoritarian states as well.

It is one of those things where some people think that eventually we will have norms that develop, that guide in a more forthright way, one of the guardrails with how people communicate online that are similar to what you see in a more developed form offline; other people think that you are going to continue to see a proliferation, a bad information come out online, that will further dilute and lead to exacerbated problems when it comes to online communication. I think this is really an area of struggle and contestation, and it is hard to know at this point where exactly things will end up, and it is certainly that one and many governments and citizens are paying a lot of attention to. Unfortunately I do not know if we have developed any great solutions, it is an ongoing process on trying to figure out how best to address this challenge.

Dyuti: In one of your articles in Foreign Policy, "Russia's Ukraine War Has Changed Big Tech Forever," there was a line that caught my attention - In the digital age, internet platforms are inextricably linked to power.

- Taking the aspect of the existent digital divide in developing and least developing countries, how do you think the race towards power will shape their existence in the coming years?

Steven: Yeah, it's a good question. And I think the real idea is that as more and more people's lives comes online and as they become reliant on information and communication technology in which to communicate and in which to do business transactions and in which to conduct their daily lives, this becomes a crucial arena of power, its one where the government recognize that if they are not able to track or know communications are taking place, then the whole area will be potentially could be ripped with dissent that could present challenges to the governing rule, and in particular when you look at authoritarian countries, where the leaders lack the consent of governed, where they closely regulate other aspects of communication whether it is print media, whether it is television or whether it is radio, or whether there are demonstrations in public square. To leave open the digital side, digital platform without essentially being untouched just does not make sense, and not only that, but it also presents greater vulnerability but if people know they can say what they want online, and well not being able to do so physically, then it is the natural incentive for them to go online, so it creates a further motivation for digital platforms to be able to serve as a form for dissent, so that is why that the linkage to power is so important.

Dyuti: When we talk about technologies presently, the first thing which comes to my mind is Artificial intelligence. Let us place this with the separation of powers context, do you think as more and more AI gets ingrained in societies, Montesquieu's abstract notion will soon disappear? Are there any chances of national digital repression?

Steven: I think it is something really to watch. The thing about what deep learning algorithms and other types of advanced kind of technology provide is first of all much more blanket coverage in tracking beyond what is been otherwise possibly just how physical human operators, who are monitoring and watching what people are doing, then secondly you have aspects of autonomy associated with these deep learning algorithms as they become more and more advanced and learn more, they can begin to, on their own to detect certain patterns of behaviors that are reviewed as dissenting, or otherwise wouldn't have been picked up through. That can be through sentimental analysis, it can be through keyword analysis of communication and so forth, the more deployed, the data is out there, the more algorithms can provide a very chilling and a very dangerous level of monitoring, one of which I think we have not come to grips with yet in what they actually mean. In democracies, I believe they are one of most important aspects they bring is the resilience in self-correction and self-correcting aspect to how they work in the sense that as we see abuses whether from AI or from other types of technologies, you have a system that can respond accordingly to build in the right safeguards; in countries where you have a single party in power that are authoritarian such as China or Russia, I think that is where you really run a risk of having a fundamental change when it comes to the nature of repression in those places.

Dyuti: In your bio, I read that you served as the deputy assistant secretary in the Democracy, Human Rights, and Labor Bureau in the U.S. Department of State, where your responsibilities were for Africa policy, international labor affairs, and international religious freedom.

- How do you think good governance reforms can exist in nations where you have militants grasping for power on one end, and unworthy political leaders treading on the other?

Steven: I think that the good news is that not all countries have those types of dynamics in place, what came into my mind when you brought this example is the country of Somalia, where you have exactly what you mentioned, you have Al Shabaab militants, on one hand, relying for power in violent ways and on the other end you have fairly untrustworthy political leaders who are overseeing the country and what is the end result?

It is really bad, Mali is another good case in point, a country with a similar kind of dynamic, these fragile concepts that you mentioned are that you can make incremental progress and you can try to do the best you can by focusing more on community levels, and then on national levels.

It is long-term process, and often times looked closely to the privy development, and you hope that over time, it will make a difference, but those are tough situations and I think those represent the hardest lines in which to make a difference, Afghanistan is another situation where unfortunately in 20 years of military intervention by the US and other democratic states were not able to make a difference. And so that, it shows you, how challenging it can be but the good news is that a lot of places have a more developed, better democratic governance structure, countries such as Kenya, Nigeria, Botswana, and Tanzania had all encountered challenges to the rule beset by aspects of corruption, and have a history of ethnically based violence but also are making strides to build a more pluralistic strong civil society, countries that are governed increasingly in a more effective way, I think are represent the types of places where the right type of support can really help.

Dyuti: This brings me to another follow up question, how will technology play a role if it falls in the hands of either the militants or such leaders?

Steven: Well, one thing we have seen that people, different individuals, and different stakeholders often turn to technologies, and social medias in particular to push their narratives, they use it as a recruitment tool as a way to mobilize the population, in terms of recruitment, for example, is a good way, and ISIS showed us this, where you have a disaffected population that are prone to being receptive towards extremist messages, this is one way where those tools can come together to bring about a greater amount of individuals who can support those causes, similarly, you also see how politicians who have negative objectives in minds will use social media to foment polarization, to perpetrate the narratives of hate that will lead to violence and so forth. Ethiopia is a good case where in the civil war that beset the country both the Tigray insurgency, as well as the government have turned to social media as a way to exacerbate political differences and to carry out violence against their political adversaries, and the results were really negative, and this goes to show you that if there is an opportunity on online platforms or otherwise for groups to push messages to support their causes which can be violent, they will do so and this is something that we have not figured out in a sound way.

Dyuti: The US and EU are working on building better transatlantic relations amid existing commercial and political rifts, with the advent of knowledge and data-driven economies, how do you see this relationship venturing its course in the next coming years placing the Ukraine issue in the middle as well.

Steven: I think honestly this extends far beyond Ukraine, I would say generally what we are seeing from the EU side is a whole new set of rules and regulations that are upcoming in the force that will remake how digital platforms operate, what kind of market power they will have and how AI technologies will be safeguarded against harm and abuse, and that is important, that move will force other democracies like the USA to follow suit, and to devise corresponding laws and regulations, that will help to clarify areas of differences when it comes to those type of questions, and so that to me is kind of the big story.

Now when it comes to Ukraine, I don't know if Ukraine is middle of this issue, and Ukraine fighting against Russia, showcases the ways in which democracies can support and help countries under the threat of powerful authoritarian state to pushback and fight back, and you are seeing a lot of that occur when it comes to helping ensure that internet stays online, pushing back against the Russian state propaganda, helping to build in resilience against cyber-attacks and so forth.

Dyuti: How do you view the relationship between technological innovation and society's vision for the future?

Steven: I think these are very much linked, in the sense that innovation does track where society wants to go. Take something as Web-3 of Metaverse, these are ideas that are building off technology that can showcase a possible vector or an avenue where society will potentially end up and with technological innovation hoping to get it there. Also, there are lots of dead ends where companies will make lots of innovations that will not end up panning out, nothing is pre-ordained, it is a bit of a process of give and take, where some innovations will thrive, and will really work and some will end up falling off wayside, it is thus an interplay in that sense.

Dyuti: BigTech companies often persuade us to give up our privacy for the sake of convenience, and as Shoshana Zuboff described this, surveillance capitalism, as the new economic order, what are some of the consequences you think will be for our rights when "internet access is considered as a valid human right,"?

Steven: It is a great question, and I think on one hand we can look at internet access itself as a human right in terms of access to information, and on other hand if it is manipulated by platforms and their algorithms, with the content they see and the emotions they could susceptibly feel, and how they would respond to result all in the name of providing revenue and profits for these companies, then we have to ask ourselves, is this human right to access information freely online being perverted by companies who are exploiting their tools for profit over safety and freedom of expression. I think these are difficult issues that governments will have to confront in a more direct way, and frankly, this is something which I have been mulling over a bit, we look upon platforms like Twitter, Facebook, and others as akin to a privatized public square, and the consequences to what is said in the activities undertaken there affect in real-world on how politics are run, who will potentially get elected and so on and so forth. As such, the ability for a single individual such as Elon Musk to take over Twitter to fundamentally change the platform, and to lead to unknown political implications as a result, I find it particularly unsettling for ways to help democracy, so one of the things I would pose is that do we need to get beyond the surveillance capitalist framework, do we need to come to new bargain essentially where we think very carefully about the role of platforms, and how they link with civil society, and the public and public square in particular, and whether this relationship needs to be rethought, and so I would put it out there as an important question that needs to be given greater scrutiny.

Dyuti: Any final comments or anything that you will like to share?

Steven: These are great questions, thanks for inviting me on, I think what you are touching upon in larger sense are these debates on the role of technology, where society is moving and what the future will look like and how do we guard against some of the ills of technology that accompany authoritarian regimes, and even some democracies, and it is has come onto all of us as citizens to engage in these debates and participate, and to think on how we can make our voices heard, and how we can guard ourselves against the negative aspects that we are becoming increasingly aware of when it comes to technologies that are deployed.



REVIEWING ESTONIA'S CYBER SOCIETY

RICHARD GRAY



If we are in what could be described as the digital age, no country better represents the potential for digital governance than Estonia. Defined by its “e-Estonia” model and geopolitical context, the country has become a hub of technology, cybersecurity, and human capital.

Estonia declared its independence from the Soviet Union on August 20, 1991, with a population of nearly 2 million, limited natural resources, and an economy impoverished relative to its Western counterparts. The country faced an almost impossible task ahead of it: find a way to catch up with the West after a half-century of foreign occupation. Coinciding with Estonian independence was the beginning of a developing and commercialized internet. Former Estonian President Toomas Hendrik Ilves recalls when he got his hands on Mosaic, the first web browser: “I bought it, uploaded it, and realized this is one area where we were all starting on a level playing field. It’s not like the autobahn... We were no worse nor no better.”

“e-Estonia” is an umbrella term for multiple Estonian initiatives to digitize society. The Foreign Policy Research Institute refers to the model as “[highlighting Estonia’s decision to] try new things... [and] going beyond simply experimenting with new policy ideas. The country has created an entire culture centered on innovation.”

The Tiger Leap Program, and its successor Tiger Leap Plus, were two central programs for creating “e-Estonia” by providing technological literacy to teachers and students, as well as outfitting schools with computers and internet access. From 1997 to 2001, every school in Estonia was furnished with the necessary hardware. As teachers became more technologically savvy, Tiger Leap and Tiger Leap Plus snowballed into more comprehensive local programs.

Today, Estonian children begin learning to code at seven years old, while the adult population also receives computer training in an effort to limit the generational divide of Estonians who use the internet.

As the population became accustomed to digital infrastructure from a young age, this allowed the government to transition 99% of its public services online. Functions like banking, taxes and navigating healthcare documents are all digital. In the 2019 European Parliament elections, more than 46% of Estonians use i-voting to vote online. However, all of these innovations were jeopardized by moving a single statue. To great controversy, Tallinn local authorities relocated "The Bronze Soldier" from the city center to the Tallinn Military Cemetery on April 30, 2007. To the Russian-speaking minority and Russians abroad, the statue represented the sacrifice Russians made against fascism. However, for too many Estonians, the statue was a bitter reminder of Soviet repression. In this period, riots commenced and ethnic tensions rose drastically. An open-source analysis done by the Estonian International Centre for Defence and Security found that the Embassy of the Russian Federation in Tallinn "Directly instructed local extremists and organizers of unrest." Russian Embassy officials also routinely met with organizers of the riots such as Dmitri Linter, leader of the group "Night Patrol", who is suspected of having orchestrated the riots.

From April 27 to May 18, cyber attacks targeted Domain Name System servers, government websites, the parliamentary email server, two major banks, and several government parties. These government and financial platforms faced severe Distributed Denial of Service (DDoS) attacks – e-streams of internet traffic large enough to crash internet servers – which resulted in these sites being closed for days on end. These sites and their crucial functions became inaccessible to Estonians, momentarily crippling the technologically dependent country. Rain Ottis' "Analysis of the 2007 Cyber Attacks Against Estonia from the Information Warfare Perspective" concludes that it is circumstantially probable that the attacks were a concerted effort by the Russian state to debilitate Estonia's digital infrastructure. Due to Russia refusing to take any measure to assist in mitigating the situation both in terms of identifying the hackers and ensuring the safety of the Estonian Embassy in Moscow, the analysis finds that the involvement of the Russian state in the cyberattacks is at minimum tacitly endorsing the actions of the hackers and that the event is best understood as "as a Russian information operation against Estonia."



At the time of the attack, Estonia had two options: either step away from the “e-Estonia” model or double down. They chose the latter.

In an interview with Joseph Marks, President Ilves explains why Estonia chose to persevere with its digitization, in spite of the latent risks.

Marks: Estonia doubled down on relying on technology after 2007 despite the cyberthreat. Was there any thought about making the nation less reliant on the Internet for vital services?

Ilves: The problem is that [industries] are all increasingly digital. Everything that runs water and energy, they are more digital. So the only thing you can really worry about is resilience.

After restoring normal network operations with the aid of the European Union, North Atlantic Treaty Organization, and Israel, Estonia developed its resilience in the form of cybersecurity. Helen Popp, counselor for cyber issues at the Estonian Embassy in Washington, DC, commented in a Foreign Policy article: “[the] awareness, understanding, resilience and defense capability [stemming from the attack] has been immense.”

In April 2022, more than 2,000 cyber experts from 32 nations flocked to Estonia’s annual Locked Shields Exercise. The event, hosted by NATO’s Cooperative Cyber Defence Centre of Excellence (CCDCOE) in Tallinn, trains national security teams in cybersecurity by simulating a “massive cyber incident.” CCDCOE was established on May 14, 2008, in response to the 2007 cyberattacks.

The cybersecurity attacks on Estonia show the importance of establishing multilateral cybersecurity collaboration to deter and limit the impact of future cyber terrorism. With the support of Estonia’s defense partners, it has become the center of cybersecurity and a strong case for leveraging positive-sum relationships between states to avert catastrophe.



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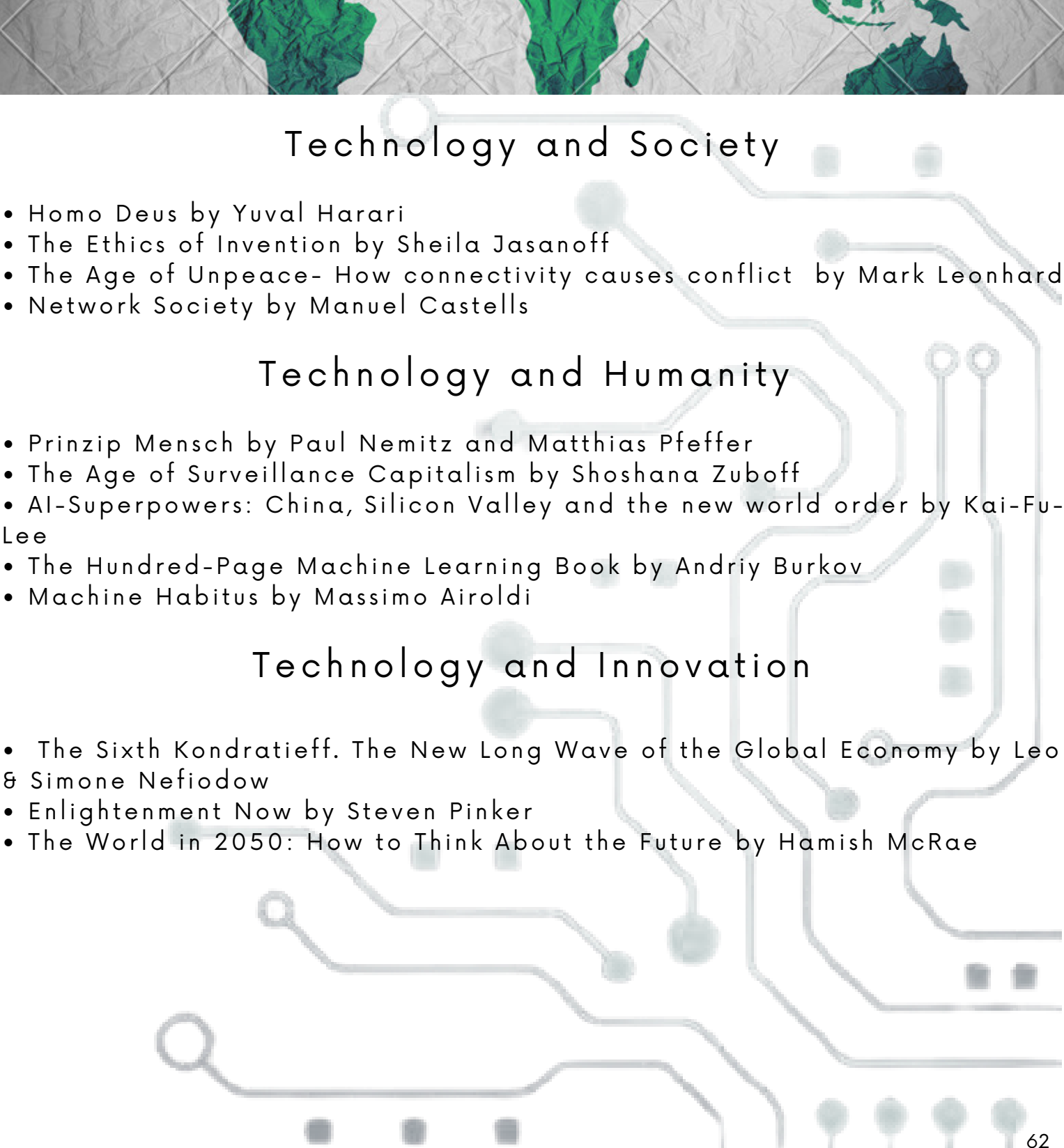
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Technology and Society

- Homo Deus by Yuval Harari
- The Ethics of Invention by Sheila Jasanoff
- The Age of Unpeace- How connectivity causes conflict by Mark Leonhard
- Network Society by Manuel Castells

Technology and Humanity

- Prinzip Mensch by Paul Nemitz and Matthias Pfeffer
- The Age of Surveillance Capitalism by Shoshana Zuboff
- AI-Superpowers: China, Silicon Valley and the new world order by Kai-Fu Lee
- The Hundred-Page Machine Learning Book by Andriy Burkov
- Machine Habitus by Massimo Airoidi

Technology and Innovation

- The Sixth Kondratieff. The New Long Wave of the Global Economy by Leo & Simone Nefiodow
- Enlightenment Now by Steven Pinker
- The World in 2050: How to Think About the Future by Hamish McRae



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Image management for authoritarian leaders: the case of Ramzan Kadyrov

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