Rethinking Security in the Twenty-First Century

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Abstract

Europe and the world had to face new security paradigms in recent decades, largely due to the social, political and economic changes resulting from globalization, but above all, due to the speed those changes are taking place, which makes it difficult for policies or legislation to keep pace, but above all, for mentalities to adjust.

We propose a reflection on some of the themes susceptible of presenting relevant Security risks in the 21st century, such as the conjunction of factors like demographics / climatic changes / migrations, or the impact of (tele)communications on democratic decision-making processes and on the health and well-being of the population.

Keywords: Security, Globalization, Demographics, Climate Change, Migrations, Elections, Pandemics

Resumo

A Europa e o mundo viram-se forçados a enfrentar um novo paradigma de Segurança nas últimas décadas, em grande parte por força das alterações sociais, políticas e económicas decorrentes da globalização, mas sobretudo, pela velocidade com que estas mudanças se registam, que dificultam a evolução das políticas ou da legislação, mas sobretudo, o ajuste das mentalidades.

Propomos uma reflexão sobre alguns dos temas susceptíveis de produzir riscos para a Segurança no século XXI, nomeadamente a conjugação de fatores como alterações demográficas / climáticas / migrações, ou o impacto das (tele)comunicações nos processos de decisão democrática e na saúde e bem-estar da população.

Palavras-chave: Segurança, Globalização, Demografia, Alterações Climáticas, Migrações, Eleições, Pandemias

"Security and Freedom in the Present and Future of Europe" is the motto for the present edition of Debater a Europa. Under this umbrella theme, we would like to discuss some of the subjects that, in our view, frame Security concerns in the first half of the 21st century.

Baby Boomers[1] or even the early Generation X[2], lived most of their lives in a pre-globalization era, where the World was still relatively predictable, despite the fast technological, demographic and political changes, already experienced. Although conflict was (alas) ever-present in the post 2nd World War (WW2) scenario, at least there was the reassurance the World remained, somehow, foreseeable under a handful of assumptions [in an oversimplified way, one presumed…]:

- The World was controlled by 2 political and economic models / 2 superpowers (the western block under the control of the USA and the eastern led by the USSR),
- War was a subject for States and definitely not for private citizens or corporations (otherwise those should be categorised as mercenaries or even worst, terrorists),
- Nuclear power was a deterrent to another global conflict and remained under the firm control of strong States,
- Fossil fuels were the primary energy sources, being crude oil at the centre of concerns for a stable economy; so, the stability of OPEC[3] countries and that of the Suez Canal were a benchmark to foresee the shifts on energy prices and their impact on global economy,
- And probably the biggest of those collective fallacious assumptions: Until the first int of a problem with the ozone layer hole[4] in 1974 (only taken seriously after NASA confirmation, more than a decade later), our Planet's essential resources, unless destroyed by an atomic bomb or a rogue space meteor, were not a concern for the next foreseeable generations.

That was obviously an anecdotal and oversimplified vision, but with a more or less complex structuring, the World tended to be, almost generally, accepted at face value and therefore, State and Corporate Security models and strategies were designed around

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[1] Demographic cohort born between 1946-1964

[2] Post Baby Boomers, born up to the early 1980's (depending on authors, up to 1976 or even 1984)

[3] The *Organization of the Petroleum Exporting Countries* (OPEC) was created at the Baghdad Conference of 1960, by Iran, Iraq, Kuwait, Saudi Arabia and Venezuela, later joined by other Members States. For history and details on the organization, see https://www.opec.org/opec_web/en/

[4] In 1970 Paul Crutzen presented a study pointing to the long lasting effect of Earth gases in the stratosphere. Later, in 1974, Frank Sherwood Rowland and his associate Mario J. Molina, related the phenomena with the 'ozone hole'. The 3 scientists received 1995 Nobel Prize for their research. See Blakemore in "The Ozone Hole Was Super Scary, So What Happened to It?"

principles that weren't worth questioning. But those of us entering the 2020's cannot afford the luxury of those familiar patterns and comforting reassurance.

Along with different actors and forms of conflict, that resist established Security (and Defence) paradigms of the second half of the previous century, globalization, economic and cultural changes, population growth and unbalance amongst regions, migrations, climate changes and the menace to the sufficiency of fundamental resources (as a result of population increase and climate changes), are amongst the most significant subjects at the centre of International Relations and Security since the turn of this century, but particular, in the past decade.

1. Addressing Security in the 21st Century

Pezarat Correia (2018, 89) mentions the impact of globalization to a relevance shift from National Defence to National Security, where national Sovereignty and Independence values are being superseded by new interests and rights. He concludes "This is all part of a new and comprehensive concept of human security that attaches less importance to the polemological component of security and much more to the social, economic, cultural and environmental aspects."[5]

It's this broader concept of Security that we would like to address hereunder, one that considers factors beyond the polemological component (that is, related with conflict and war).

The concerns we propose sharing, were chosen due to their global relevance and obviously for its significance to Europe in the foreseeable future.

2. Demographics, Climate Changes and Migrations' Impact on Security

United Nations (UN) data[6] indicates that, by mid-2019, world population had already surpassed 7,7 billion, and medium life expectancy at birth grew to around 72,6 years for the global population, from an estimate of around 3,03 billion people, with a medium life expectancy at birth around 52,5 years in 1960!

Despite the population growth rate being already in decrease from a peak annual average of 2.1% per year in the 1965-70 period, to the current 1.1% average, the 10 billion mark will probably be reached around 2055, very likely in the lifetime of most readers.

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[5] Present author translation from Portuguese

[6] UN Data information is accessible from https://population.un.org/wpp/; See Bibliography for UN 2019 reference publications

But a population increase implies the need for more natural resources and the support of technology for such an accelerated production growth, can only go so far. Therefore, the planet is under a heavy toll to keep up with resources demand. But more significant, the demand increase is not in a direct connection with population growth, once more urbanized and 'evolved' people increase their consumption parameters, both in terms of quantity, but also in relation to the diversity and complexity of goods and services required.

Although detailed demographic studies are still revealing new features and consequences of the population growth, we already know that[7]:

- Population growth is mostly concentrated on developing countries and amongst those, in the poorest ones. Also, and directly related, fertility rates are not only decreasing in developed countries, but population is living longer and consequently, depending on the workforce of others for more years, whilst presenting increased healthcare and geriatric assistance needs. Thus, developed countries are evermore dependent on migrants to preserve the stability of its workforce.
- Already more than half of the population lives in urban concentrations and that tendency is apparently still increasing, particularly in poorest countries: "Urbanization is one of the leading global trends of the 21st century that has a significant impact on health. Over 55% of the world's population live in urban areas, a proportion that is expected to increase to 68% by 2050. As most future urban growth will take place in developing cities, the world today has a unique opportunity to guide urbanization…"[8].
- Such urban migrations[9] have a double detrimental impact on farmland, either with human settlements and infrastructures occupying fertile agricultural areas, or large population numbers abandoning the primary sector, which in term entails the disappearance of traditional subsistence economies, once most of these people is no longer able to directly provide for an essential part of their food requirements.
- Untendered fields and poor-quality urbanism, to which we can add the climate change effect, as we are already watching on our daily news, increase the dimension

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[7] See bibliography for UN multiple data sources

[8] WHO data, on https://www.who.int/health-topics/urban-health

[9] Those problems, along with climate changes' effect, migrations, water scarcity etc…, have already been considered about 20 years ago, on the CIA report *Long-Term Global Demographic Trends* from July 2001 (pag 59): "In the past 40 years, prime agricultural land in the Beijing-TianjinTangshan area has decreased by 55 percent because of urban sprawl and industrial conversion." or "Urbanization–particularly squatter settlements–in Turkey and India and in Latin America and other developing regions, for example, often occurs on land highly vulnerable to earthquakes, flooding, and mud slides."

and consequences of floods, landslides or wild fires[10] .The cycle perpetuates with more people requiring assistance, more migrants, and more abandoned fields.

- Too, the further people are from those basic resources, the longer they must travel to them. That implies more processing and transportation needs, translated into more energy demand and more pollution, and unfortunately, a further climate impact.

- One relevant effect of this urbanization trend must be considered: people will require goods and services previously inaccessible or simply not relevant to them. Besides the obvious necessity of transportation associated to daily commutes, people with access to electricity will purchase the refrigerator or the TV, being away for a good part of their day, will need to eat out of their homes or resort to processed foods more often, etc. That will add one more layer to that nonlinear progression between population growth and supplies demand.

But if we had to those facts, the knowledge already available on human impact on climate, the management of resources becomes even more complex, with a direct impact on Humans' and consequently, a Security issue.

On this subject, we should carefully consider the IPCC report on climate change and land, were it refers[11] right at the beginning:

'A.1 Land provides the principal basis for human livelihoods and well-being including the supply of food, freshwater and multiple other ecosystem services, as well as biodiversity. Human use directly affects more than 70% (likely 69–76%) of the global, ice-free land surface ... Land also plays an important role in the climate system…

A.1.1 People currently use one quarter to one third of land's potential net primary production for food…

A.1.2 … Land ecosystems and biodiversity are vulnerable to ongoing climate change, and weather and climate extremes, to different extents. Sustainable land management can contribute to reducing the negative impacts of multiple stressors, including climate change, on ecosystems and societies …

A.1.3 Data available since 1961 show that global population growth and changes in per capita consumption of food, feed, fibre, timber and energy have caused unprecedented rates of land and freshwater use … agriculture currently accounting for ca. 70% of global fresh-water use ... Expansion of areas under agriculture and forestry, including commercial

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[10] Vide in 2019/2020, the uncontrolled wildfires in California, Amazon, Australia, or the record floods in Venice

[11] United Nations – Intergovernmental Panel on Climate Change, Special Report on Climate Change and Land, August 2019, pag 5

production, and enhanced agriculture and forestry productivity have supported consumption and food availability for a growing population ... With large regional variation, these changes have contributed to increasing net GHG emissions …, loss of natural ecosystems … and declining biodiversity …

A.1.4 … Currently, 25–30% of total food produced is lost or wasted … These factors are associated with additional GHG emissions ... Changes in consumption patterns have contributed to about two billion adults now being overweight or obese ... An estimated 821 million people are still undernourished…

A.1.5 About a quarter of the Earth's ice-free land area is subject to human-induced degradation … Soil erosion from agricultural fields is estimated to be currently 10 to 20 times (no tillage) to more than 100 times (conventional tillage) higher than the soil formation rate ... Climate change exacerbates land degradation, particularly in lowlying coastal areas, river deltas, drylands and in permafrost areas ... … In 2015, about 500 (380–620) million people lived within areas which experienced desertification between the 1980s and 2000s. … Other dryland regions have also experienced desertification. People living in already degraded or desertified areas are increasingly negatively affected by climate …

If we started by seeing references to demographics, climate changes and migrations as separate phenomena, more recent data and studies[12], at least since the dawn of this century, are connecting those phenomena.

Summing up, empirical observation supported by scientific analysis, leads to the conclusion that human population hasn't yet reached its peak, and already more than half of it is living in urban agglomerates, being that this tendency will continue to increase.

Population in increasing mostly in developing countries, whilst developed countries are shrinking and getting older, which entails a struggle to balance their workforce requirements with those of an older and more dependent population.

Production will be pushed to further levels and in turn result in more pollution, because of the direct needs of population growth, farming constraints arising from climate change, and the contagious effect of increasing consumption patterns.

Huge urban concentrations (often on inadequate terrains) and less tendered fields, point towards the shrinkage of subsistence economies, but even worst, are more prone to amplify the effect of natural disasters, particularly floods and wildfires.

Population growth in poorer countries, climate change and Demographics, unbalance, are contributing factors for the different migration forms – urban and transnational. Those uncontrolled Migration waves are a serious Security concern for Europe, North America

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[12] On 'Environmental Migration' and/or definition of Environment Migrants and Environment Displaced Persons see, for instance, IOM – UN Migration https://migrationdataportal.org/themes/environmental_migration or World Migration Report 2020 chapter 9

or Australia, once those migrants are, more often than not, unprotected, subject to violence and exploitation, prone to poor living conditions and ultimately, more exposed to disease and crime.

3. Globalization's Impact on Security

We will not theorize herein on the globalization concept[13], proposing instead a reflexion on its subtle influences on our everyday perception of collective Security. For this purpose we would like to start by recalling a phrase from Friedman's Introduction to his work, The World is Flat: "…those who get caught up in measuring globalization purely by trade statistics – or as a purely economic phenomenon instead of one that affects everything from individual empowerment to culture to how hierarchical institutions operate – are missing the impact of those changes."

One of the most obvious characteristics of globalization is that science and technology are evolving at an extremely rapid pace and presenting new dilemmas every day. Not unexpectedly, the security and defence paradigms, and furthermore the social, political, economic and legal models have a hard time keeping up with the constant changes brought by globalization.

Also, globalization presents itself with realities Humans still haven't grasped fully, like dematerialisation processes, artificial intelligence or Human decisions being superseded by computer programs. We are genetically wired to understand and process previous experiences, not to dwell on hidden influences (well, maybe artists and scientists don't follow that pattern, but they are the exception that confirms the rule…). In many instances, physical was superseded by a virtual / dematerialised reality which, as will be discussed ahead, challenges a society still structured under geographical boundaries and material concepts.

We will exemplify those insidious effects with a couple of the recent public events, all with implications larger than the primary target and ultimately, with effects on international Security:

✓ **2016 US Presidential Elections and the Brexit Referendum**
One lives on the faith that democracies have fair and square elections, and that our elected Leaders reflect an unbiased choice of the People. Well, after the 2016 US

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[13] Nevertheless, it should be stressed that herein globalization will be in considered in its broad sense, therefore including the more diversified forms of global trade and cooperation, including scientific, communications, travelling, cultural interchange, etc.

Presidential Elections, our faith is shaken, and the election of future World Leaders will most likely be tainted with the doubt of foreign manipulation!

As well researched and documented by Professor Kathleen Jamieson[14], Russian Internet Trolls[15] attacked mainly in two fronts: divulging Candidate Clinton's e-mails from a personal account whilst she was the Secretary of State, to stress her lack of care by not duly protecting sensible information, and divulging fabricated news on social media, discrediting the Democratic Presidential candidacy.

As per the 'Joint Statement from the Department of Homeland Security and Office of the Director of National Intelligence on Election Security', October 7, 2016:

"The U.S. Intelligence Community (USIC) is confident that the Russian Government directed the recent compromises of e-mails from US persons and institutions, including from US political organizations. The recent disclosures of alleged hacked e-mails on sites like DCLeaks.com and WikiLeaks and by the Guccifer 2.0 online persona are consistent with the methods and motivations of Russian-directed efforts. These thefts and disclosures are intended to interfere with the US election process…"

But the full scale of the interferences and its consequences, became apparent on the indictment of 13 Russian citizens and 3 corporations, for alleged interference in the US presidential elections of 2016. As Stated on the indictment document:

"…Defendant … ("ORGANIZATION") is a Russian organization engaged in operations to interfere with elections and political processes. Defendants…worked in various capacities to carry out Defendant ORGANIZATION's interference operations targeting the United States. From in or around 2014 to the present, Defendants knowingly and intentionally conspired with each other … for the purpose of interfering with the US political and electoral processes, including the presidential election of 2016."

But when public opinion thought the election's manipulation scandal had reached its limit, there came the Cambridge Analytica / Facebook case[16]. As stated in a brilliantly simple way by Julia Wong to The Guardian[17], "…Facebook had allowed someone to extract vast amounts of private information about vast numbers of people from its system,

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[14] Cyberwar: How Russian Hackers and Trolls Helped Elect a President: What We Don't, Can't, and Do Know

[15] In internet slang, a troll is a person that looks for discord by posting inflammatory messages to on-line communities, in order to provoke discussions, either to obtain a gain, or for his/her amusement

[16] For details, see Timothy Lee's "Facebook's Cambridge Analytica scandal, explained [Updated]"

[17] "The Cambridge Analytica scandal changed the world – but it didn't change Facebook", 18 March 2019

and that entity had passed the data along to someone else, who had used it for political ends…. what happened with Cambridge Analytica was not a matter of Facebook's systems being infiltrated, but of Facebook's systems working as designed: data was amassed, data was extracted, and data was exploited."

This time the scandal involved more then one country and political event – besides the US 2016 Ted Cruz's Presidential candidacy, the UK Brexit referendum was also at the centre of the storm. Besides and even more disturbing, we realise that not only our collective political decisions are being manipulated through illegal actions, but perfectly legal institutions and actions can be used for massive manipulative purposes.

We cannot stop worrying about our Security, once we see the political democratic foundations being threatened!

✓ Globalization and Health

Globalization has been a blessing for international health standards. Medical advances are available not only faster, but also to a greater scope of researchers and users, and telemedicine[18] helps saving or giving better life quality to countless persons.

But not all the impacts of globalization en Health are good, and some are even pernicious, as illustrated here:

An article from World Health Organization[19] stated – "…One reason for the increased political awareness of health stems from a negative consequence of globalization: the unprecedented speed with which infectious diseases can now spread around the globe. ''The globalization process has brought the world to understand that an infectious disease in one country may represent a very real health threat for the rest. This is a very powerful message and a great incentive to help mobilize partnerships for public health,'' says WHO's Heymann. AIDS, malaria, dengue, yellow fever, West Nile virus, Ebola, mad cow disease – to name but a few – are painful reminders that the 21st century's global village poses serious threats to public health…" Are WHO concerns justified? Apparently, very much so.

According to the online portal STATISTA[20]: "Worldwide, the tourism industry has experienced steady growth almost every year. International tourist arrivals increased from 528 million in 2005 to 1.19 billion in 2015. Figures were forecasted to exceed 1.8 billion by 2030."

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[18] Telemedicine, also known as telehealth or e-health, allows health professionals to evaluate, diagnose and treat patients in remote locations using telecommunications technology.

[19] "Globalization – how healthy?", WHO Bulletin 2001, 79 (9)

[20] "Global travel and tourism industry – Statistics & Facts", Statista Research Department, August 21, 2018

Those figures are probably very underestimated, as just the Chinese New Year implies more than the double of that, according to one of China's top travel organizations[21]: "In 2018, it was estimated that Chinese travellers made around 3 billion trips during the 40-day Spring Festival period." Despite the right number of yearly travellers, it is hug! With billion(s) travelling each year, it is extremely difficult to control the spread of diseases worldwide, in a record time lapse.

The Wuhan corona virus is a very recent reminder to what point a local health problem is susceptible of escalating to a global Security concern, furthermore since the infection coincides with the celebrations of the Chinese New Year in 2020.

But the extent globalization is susceptible of negatively influencing health, goes beyond the present travelling facilitating physical contact between people from faraway places. E-communication and social media are amongst the most relevant platforms for the spreading of health myths and factoids, some innocuous others, a Security menace.

Amongst the most well-known negative impacts, is the refusal of vaccination for children, due to several cognitive biases[22], easily spread in social media. Curiously, this is more prone to happen in richer countries and higher social classes, where overconfident people believe their high quality of life is a health protection outweighing the non-vaccination risks.

According to Belluck and Hassan for The New York Times[23], by the year 2000, measles was declared eradicated in the United States, but by May 29, 2019, 26 states had already registered 971 individual measles cases since the beginning of that year!

It seems those phenomena need addressing at the same level as factoids and fake news, which means, media should be used at a comparable level, to spread scientific information.

Conclusions

From the examples above, we conclude that the present global security concerns, and probably those following the next generations, are departing fast from those security paradigms of the past. The same advantages brough by science and globalization that permitted human population to thrive, are presenting their nefarious effects, that need be address in order to preserve world security.

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[21] "The Chinese New Year Travel Rush – the World's Largest Annual Human Migration", China Highlights

[22] Watts, Sarah, "Cognitive Biases That Explain Why People Still Don't Vaccinate", Forbes, February 19, 2019

[23] Belluck, Pam, Hassan, Adeel, "Measles Outbreak Questions and Answers: Everything You Want to Know", The New York Times, February 20, 2019 updated on May 29, 2019

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