# Is Web Transforming Our Minds and Where is Our Civilisation Going to?

# Matjaž Gams

Institut »Jožef Stefan« Jamova 39, Ljubljana, Slovenia matjaz.gams@ijs.si, https://dis.ijs.si/mezi/

*Abstract*—This paper analyses civilization dangers that Bill Gates and Elon Musk warn about: pandemics, demographic and AI. In addition, the undesired societal changes especially in relation to the mind tampering and the Web are observed. The analysis about longevity of human civilization seems to indicate that we humans on our own are not smart enough to find a solution. Luckily, there is a possible solution: to create and cooperate with superintelligence.

*Keywords:* civilization dangers, artificial intelligence, demographics, Web, media objectivity

#### I. INTRODUCTION

Before the COVID-19 pandemics, practically nobody thought it could happen even though Bill Gates warned about it five years ago at the TED talk with a title: "The next outbreak? We are not ready". Yet, pandemics COVID-19 happened in 2020 and we were indeed not ready. It should be noted that Bill Gates is one of the richest and most influential people in the world. Why is humanity so blind for the forthcoming major dangers that scientists and visionaries present reasonable arguments for? Can we learn anything from this tragic event?

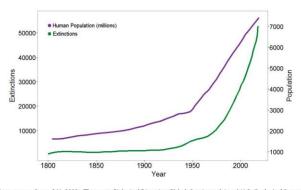
Elon Musk is probably the greatest technological genius and visionary of current times. He mass-introduced electric cars (Tesla) to our planet and is planning several space activities including Starlink and going to Mars to avoid human extinction in case anything catastrophic happens to our planet. Most often he mentions three major civilization dangers: artificial intelligence (AI), demographics and environment. These and related civilization dangers and major shifts in recent years are the major topics of this paper.

<sup>i</sup>The TED talk is available at: <u>https://www.ted.com/talks/bill\_gates\_the\_next\_outbre</u> <u>ak\_we\_re\_not\_ready</u>

# II. HUMAN PROGRESS THROUGH DEMOGRAPHIC CHANGES

When analyzing recent progress of human civilization, one must first note the demographic changes (problematic), and second the growth of the knowledge, science, technology and the information society (positive). In terms of demographic changes, in the 20th century there was a clear exponential growth after World War II. Figure 1 indicates not only the exponential growth of the human population, but also the exponential growth of the animal extinctions – we humans are already overpopulating our planet causing havoc among animals and plants and the environment.

# Humans & The Extinction Crisis



Data source: Scott, J.M. 2008. Threats to Biological Diversity: Global, Continental, Local. U.S. Geological Survey, Idaho Cooperative Fish and Wildlife, Research Unit, University Of Idaho.

Fig. 1. Growth of human population and animal extinction.

With fertility (i.e. number of children born per woman) around 5 as in the 20th century, the human population would reach 1 person per m2 in 13 generations. In 40 generations there would mathematically be 1 person per each kilogram of our planet, which is obviously impossible [1]. At the same time, animal extinction is 100x faster than it was a century ago; in the last 40 years there are 50% animals less; a study in Germany showed that in 27 years there are 75% less flying insects. Therefore, the population growth is unsustainable for a larger period of time [2].

On the other hand, latest demographic studies [3] predict that the world population growth will stop in 2065, therefore the halting mechanisms in our society are already long triggered and effective. The paper was supported by the Melinda and Bill Gates foundation. Bill Gates as probably the most important person whose life in recent decades is dedicated to saving our planet and our civilization, is also intensively working on the demographic issues, in particular how to stop the exponential growth of the human population in particular in specific areas like Africa. However, the tide is turning, the number of newborns in the world is not growing anymore for the last two decades and the human population mainly increases due to longer life span. The new danger not becoming evident, even more surprisingly - it still causes disbelief and public rejection [4] is first of all the danger of extinction of smaller nations and languages, thus causing globalization, unification and corresponding reduction of world cultures, languages and overall richness of human civilization. The one world speaking one language would be much poorer in the mental, cognitive and cultural sense. In addition, some studies indicate that the danger of civilization collapse would increase significantly with growing globalization. Currently, there are still major blocks such as USA and China, but one global village would be a potential disaster since all civilizations inevitably face saturation and decline [5]. In case of many sub-civilizations, other take the lead after the major ones stumble. In case of one global civilization only, there is no one to reboot human progress.

## III. THE PREDICTED TIMESPAN OF THE HUMAN TECHNOLOGICAL CIVILIZATION

Several authors [6][7] tried to predict the longevity of the human technological civilization, e.g. the one that is technologically at the level of sending data to the universe. Civilizations inevitably leave some energy traces because of their activities and it must be detectable. Scientists have for decades performed more and more advanced studies to find other civilizations, they investigate planets, habitable planets and signs of life. No sign of life was detected elsewhere except potentially Mars. No civilization was detected and from the first "Where are they" proclaimed by Fermi in 1950, 4 years before the death of Alan Turing, the father of digital computers [7][8] till now no trustful and repeatable sighting was reported. It seems that we are alone in our galaxy, or at least in our part of our galaxy. That leads to two hypotheses:

- 1. either we are indeed the first (or one of the first) technological civilization or
- 2. civilizations are of limited time span.

Unfortunately, the probability of the first hypothesis given the age of our galaxy is irrelevant compared to the second option.

The studies performed at the Jozef Stefan Institute [5][6] indicates that most likely the longevity of our technological civilization is around 1.000 to maybe 10.000 years. Most likely, we will destroy ourselves since humans are on Earth for millions of years and no major destruction was detected observable as major extinction in that period of time. Historical finding indicate only five major extinctions happened in the history of our planet, the first one 440 million years ago<sup>ii</sup> and therefore the Earth is quite a safe planet. More likely, the growing powers combined of humans with irresponsible governing will cause the collapse of our civilization. Or, we will just sadly change our orientations towards internal issues such as hedonism not going to other planets and other stars. Another danger lurks in the globalisation and mind laundering as presented in the next section.

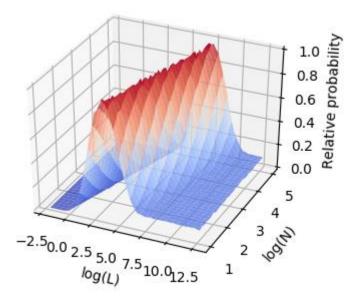


Fig. 2. Predictions of human longevity (L) depending on the number of civilizations in our galaxy (N) with one of the models designed by the author's group.

# IV. EXPLOSION OF FAKE NEWS, MYTHS AND MIND TAMPERING

With the Donald Trump's candidacy for USA president, the fake news epidemics of the news media erupted even before the fake news about COVID-19. If one remembers only the false or even conspiracy theories promoted by mass media, e.g. mask recommendations by the major world health organizations: first they were supposed to be irrelevant and was no use of wearing masks. Second, they became recommended, then some even proposed two, one on top of the other. Another example: the COVID-19 virus was proposed by Donald

<sup>&</sup>lt;sup>ii</sup>https://www.mdpi.com/journal/geosciences/special\_issues/ mass\_extinctions

Trump to be manufactured in China. Mass media denoted the idea false, ideological and even racist and forcefully rejected any study in that direction. As of the end of May 2021, when this paper is being written, Facebook deleted all posts about laboratory-generated COVID-19 virus. However, about this time several information previously censured reappeared at least making the possibility of human-generated virus as or even more likely than the natural source. It is interesting to read these lines in the proceedings of the conference in Autumn 2021 and compare it to the current positions<sup>iii</sup>. Even before the pandemics, in the era of Donald Trump, around half of all Americans (49%) indicated in the questionnaires that the media is very biased, according to the trustful Gallup / Knight poll "American Views 2020: Trust, Media and Democracy," polling 20,000 Americans [9]. The majority of Americans believed that the media are becoming propaganda tools; 74% of them believed that the writing of the media is directed by the owners, which is 5% more than in 2017. They were of the opinion that biased reporting is purposeful.

consequences of mass media deliberate The propaganda are being highlighted by commercials, and the Web. Altogether they lead to a conclusion that a large part of population, and particular the younger population, is under strong mental and cognitive influence affecting their behavior. The effectiveness of these mechanisms might still not exceed the effects of the strongly censured media in the dictator's regimes, but is becoming close. In the tests performed by the author, the majority of younger population believed that women in Slovenia earn significantly less, 10-20%, whereas statistical data shows that the income per an hour of work is practically identical, and similarly for the current pensions where women live seven years more on average. Statistical data also indicates that Indian Women in USA learn more than white males [10]. Also, majority of younger population in our studies thought that Donald Trump is not above average intelligent. How one person can believe that the president of any country, yet USA, can be of average intelligence, is not clear, unless the mass brain laundering comes into effect. And third, when these brain-washing effects (i.e. Coercive Persuasion) on the polled students are revealed to them, strong negative feelings are demonstrated - indicating that these objectively false ideas have penetrated deeply into the system of beliefs of the individual minds of young smart people. A disclaimer is needed: the purpose of the paper is not to allude to any political orientation or ideology; rather, the turning of young free-will students into followers of a specific globalist ideology is against the preferences of an advanced civilization. To make things worse, the online social networks in studies in recent years turned extremely harmful emotionally and in relation to science: they

<sup>iii</sup> Note that the team from the author's department won the second place at the worldwide XPRIZE competition for best COVID-19 measurements and 250.000 dollars award: https://dis.ijs.si/?p=436 enhance herd instincts through seemingly innocent mechanism like "likes", encouraging the worst in the masses, attacks on dissidents, polarization, violence, revolution; increase in (self) violence, suicide, hatred, depression. AI recommendation algorithms unfortunately in the service of capitalism profits and other negative motivations confirm nonsensical ideas and again unfortunately, our brains against supercomputers with AI algorithms cannot defend in particular if the brains are young and super sensitive. Please note that AI primarily helps [11] and in general substantially enables the human progress so some negative misuse should not be messed with the overall contribution.

The dark side of the online media was revealed in public for example by The Digital Dilemma and Worldnet. The landmark report The Digital Dilemma was introduced by the Academy's Science and Technology Council. It showed that several online mechanisms are in effect negative for individuals and society, with likes in social networks an example. The inventors expected that the likes will promote kindness and positive emotions all over the networld, rewarding good ideas and positive feelings. In reality, it was the contrary: netizens behaved surprisingly primitive and performed massive brutal attacks on particular victims sometimes chosen randomly. The medieval which-hunt as if re-emerged from the dark centuries ago.

Second, the effect on an average netizen was negative in terms of feelings and loss of sense of reality. Several studies showed that the number of hours daily spent on digital networks was directly proportional to the amount of negative thoughts in a retrospective way, including thoughts of a suicide. Secondly, the number of people believing in proven wrong, unscientific opinions significantly increased. For example, the number of conferences about flat Earth is on constant rise in recent years. In Slovenia, a record percentage of population does not trust the vaccines, according to The Lancet paper, which puts Slovenia among the 5 worst countries in the world. In the last two years, some of our studies have revealed the sources and mechanisms of these negative effects.

## V. DISCUSSION AND CONCLUSIONS

There are several dangers to the current progress of human civilization and the COVID-19 crises indicated that the dangers are not fictive, but lurking in the near future. Scientists need to study them in detail and perceive the dangerous scenarios in advance enabling humans to prevent or at least decrease the danger when they (some will probably inevitable) happen.

Among the dangers often mentioned by visionaries by philanthropists like Bill Gates and technological super geniuses like Elon Musk, the list includes: ecology, demography, AI, social eclipse and alike. We have briefly discussed some of them in this paper.

While the internet remains one of the best and most democratic media in the world and most helpful for the

progress of human civilization, many visionaries warned that eventually some will use the power of the online media for their own (dark) purposes. It is still not clear whether these negative side-effects are emergent or there are influential individuals or societies behind them or both.

Studies of longevity indicate that there are around 1.000 to 10.000 years of growth of human civilization ahead of us, and then a civilization collapse will inevitably happen. That seems confirmed by the statistics and the lack of contact with other civilizations. Yet, there is a potential solution that is rarely mentioned in the media: with the appearance of superintelligence, i.e. artificial intelligence superior to the human mind, there is a reasonable possibility that in synergy between AI and human AI we will conquer our galaxy and not struggle to survive.

#### REFERENCES

- [1] M. Gams, J. Malačič (ed.), Bela knjiga slovenske demografije. Ljubljana: Jozef Stefan Institute, 2019.
- [2] E. Kolbert, The Sixth Extinction: An Unnatural History. New York: Henry Holt and Company, 2014.
- [3] S. E. Vollset et. al., "World population likely to shrink after midcentury, forecasting major shifts in global population and economic power," The Lancet, vol 396, pp. 1285-1306, October 2020.

- [4] M. Gams, Presentation at a council meeting on demography in the National Council on demography, 2018, https://www.youtube.com/watch?v=A4rai9zoNg0.
- [5] B. Šircelj, L. Blatnik Guzelj, A. Zavrtanik Drglin, M. Gams, "Expected human longevity," In Cognitive Science, vol. II., T. Strle, T. Kolenik, Markič, Olga, Eds. Ljubljana: Information Society 2019, Jožef Stefan Institute, 2019, pp. 61-65.
- [6] A. Marinko, K. Golob, E. Jemec, U. Klun, M. Gams, "A new study of expected human longevity," In Cognitive Science, vol. II., T. Strle, J. Černe, Markič, Olga, Eds. Ljubljana: Information Society 2020, Jožef Stefan Institute, 2020, pp. 38-41.
- [7] J. O. Engler and H. von Wehrden. "Where is everybody?" an empirical appraisal of occurrence, prevalence and sustainability of technological species in the universe," International Journal of Astrobiology, vol. 6, pp. 499-505, January 2018.
- [8] N. Herzfeld, "Where Is Everybody?" Fermi's Paradox, Evolution, and Sin," Theology and Science, vol. 3, pp. 366-372, June 2019.
- [9] Knight Foundation, "American Views 2020: Trust, Media and Democracy," 2020, kf.org/usviews20.
- [10] The Economic Times, "Indian-American women earn more than white men in US: Report," 2016, https://economictimes.indiatimes.com/nri/nris-in-news/indianamerican-women-earn-more-than-white-men-in-usreport/articleshow/50484732.cms?utm\_source=contentofinterest& utm\_medium=text&utm\_campaign=cppst.
- [11] T. Kolenik, M. Gams, "Persuasive technology for mental health: step closer to (mental health care) equality?" IEEE technology & society magazine, vol 1, pp. 80-86, March 2021.