

Edge question 2013

WHAT SHOULD WE BE WORRIED ABOUT?

Technology May Endanger Democracy

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Science is the source of numerous cures for medical, social and economic issues. It is also an incredibly exciting and beautiful intellectual adventure. It leads to new technologies, which change our lives, often for the better. *Could these technologies endanger the foundations of liberal democracy? This may sound crazy. Yet, we should all worry about it. It is a real threat, which should concern every thinking person, if he or she believes that science can advance humanity and that democracy is the least bad system of governance.*

A serious mismatch is gradually developing, step by step, between two seemingly unrelated issues: The penetration of science and technology into all aspects of our life, on one hand, and liberal democracy, as practiced throughout the free world, on the other hand. Intrinsicly, science and technology are neither good nor bad. It is how we use them, which may lead to far-reaching benefits or to negative results. Their applications are often planned and deliberate, but sometimes unintended and accidental. The developing conflict between the consequences of modern technology and the survival of democracy is unintended but pregnant with great dangers.

Let us count seven components of this brewing trouble:

First - a mismatch of time scales. Many issues tackled by decision makers are becoming more complex, multi-disciplinary, global and multi-generational. Education systems, research policy, social security, geo-political trends, health insurance, environmental issues, retirement patterns, all have time scales of decades. The time lag from discussion to decision, execution and consequences is becoming longer, thanks to our growing ability to analyze long term global effects, and to longer years of education, work and retirement for the average person. On the other hand, the time horizon of politicians was always the next election, typically four years, or else anything between two and seven years. But modern technology, while producing longer time scales for the problems, creates instant on-line popularity ratings for reigning office holders, pressing them for short term solutions. They then react on a quarterly basis to issues influencing us for

decades, when both periods result from technological developments. ***We live longer, but think shorter.***

The second issue is another type of a time mismatch. Twitter, texting (or SMS in European jargon), internet comments or “talkbacks” and similar one-liners make the old superficial sixty-second TV news item look like eternity. But real public issues cannot be summarized by micro-sound-bites. This encourages extremism and superficiality and almost forces politicians to express themselves in the standard 140 characters of Twitter, rather than in 140 lines or pages of a decent position paper. The voting public is exposed only to ultra-brief slogans, with younger generations becoming the next evolutionary phase of the human race: ***“homo neo-brevis”, with a brief attention span, affinity to one-liners, and narrow fingers for the smartphone.***

The third issue is the growing importance of science literacy and quantitative thinking for decision makers. Today’s world introduces us to energy issues, new media, genetic manipulations, pandemic flu, water problems, weapons of mass destruction, financial derivatives, global warming, new medical diagnostics, cyber wars, intellectual property, stem cells, and numerous other issues that cannot be tackled by people lacking a minimal ability to comprehend scientific arguments, accompanied by simple quantitative considerations. Unfortunately, the vast majority of senior decision makers in most democracies do not possess these rudimentary abilities, leading to gross errors of judgment and historic mistakes which will impact many generations. ***We need scientifically trained political decision makers.***

The fourth mismatch is the fact that electability to high office requires talents that are totally unrelated to those required by governing and leading. Major countries elect senior office holders with credentials which would normally not allow them to get a job as a CEO of a minor company. The democratic process does not start with a proper job description, but with an ability to charm TV viewers, and the ability to appear either as “one of the guys” or as a remote admired prince (or, even better, both). TV and other electronic media make sure that most voters never see the real person, but only an image on the screen, augmented by all possible add-ons. ***A talent for speech delivery, including the ability to read from a Teleprompter, while appearing to improvise, is more crucial than familiarity with global issues, experience and leadership.***

The fifth danger is the mad rush for “transparency”, enhanced by immediate web dissemination of all revealed items. It is almost impossible to have a proper frank high level discussion, weighing “out of the box” options before rejecting them, toying with creative ideas and expressing controversial views, when every word spoken may appear within days on the screens of a billion computers and smartphones, summarized by one sentence and often taken out of context. It is impossible to write an honest recommendation letter or a thorough well-balanced evaluation of an organization or a

project, when confidentiality is not only compromised, but public disclosure is idolized. It is a small wonder that talented and experienced people, with proven abilities in any other field, normally shy away from entering politics, when “transparency” threatens to destroy them. Sometimes one feels that ***future elected and appointed senior officials will have to post the results and pictures of their latest colonoscopy on the web, in the name of transparency.***

The sixth item, which is amplified by technology, is the justified public desire for all freedoms - of speech, of the press, of information, academic freedom, and all other freedoms guaranteed by a proper democracy. These, as well as other human rights, are indeed among the most important pillars of democracy. But when they are carried to unacceptable extremes they may lead to grave distortions: Incitement for murder or genocide is allowed; Pedophilia is acceptable; Disclosure of life endangering national security information is fashionable; Equal time for creationism and evolution is demanded; Protecting terrorists and murderers rights is more vigorous than defending victims’ rights; Numerous other outlandish situations, which were never meant to be covered by basic human rights, emerge. Technology is not creating these situations, but the brevity of messages and their fast and wide dissemination, together with ***the ability to transmit all of the above across borders from backward dictatorships into democracies, turn the sacred human rights and civil freedoms into a double edged sword.***

Finally, the seventh pillar of the sad mismatch between modern technology and democracy is globalization. Political boundaries may cover a state, a country, a continent or the entire planet. But every political unit must have a certain set of rules. Country A can be an exemplary democracy and country B a dark dictatorship. If there is very little cross talk between their societies, both regimes may survive and will have their own rules. Globalization helps in the spread of progressive ideas into dark political corners, but if in Germany, the denial of the holocaust is a criminal offence, and a satellite transmission from Iran can reach directly every house in Germany, we have a new situation. If modern technology allows fast and efficient money laundering, performed among numerous international banks, almost at the speed of light, we have a new challenge. If the world tries to make international decisions and treaties by majority votes of countries, most of which have never experienced anything remotely similar to democracy, it enforces global anti-democratic standards. We also observe an enhancement of illegal immigration patterns, cross boundary racist incitement, international tax evasion, drug trafficking, child labor in one region producing goods for another region which forbids it, and ***numerous phenomena, amplified by the fast mobility and modern communication offered by today’s technology.***

To be sure, all of these seven points have been with us for years. We often had short sighted leaders, complained about superficial TV items covering complex issues, observed scientifically illiterate leaders moving blindly in a labyrinth of technical issues,

elected inexperienced good looking politicians, demanded a reasonable level of transparency, exaggerated in the application of honored constitutional principles, and believed in connecting with other nations on our planet. But ***modern technology has changed the patterns of all of these and amplified a dangerous lack of balance between our ideals and today's reality.***

As someone who believes in the enormous positive contribution of science and technology for our health, food, education, protection and our understanding of the universe, I am in great pain, when I observe all of these features, and I believe that we should be truly worried. The only way to cope with the problem is to allow the structure of modern liberal democracy to evolve and adapt to the new technologies. That has not yet begun to happen. We do not yet have solutions and remedies, but ***there must be ways to preserve the basic features of democracy, while fine-tuning its detailed rules and patterns, so as to minimize the ill effects and to allow modern science and technology to do significantly more good than harm.***

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