Topic 1

by H.T. Yim

1. To what extent did technological advancements contribute to the formation of the Earth Republic?

The exponential frequency of climate-related hazards (floods and droughts with particular fatality), combined with a nuclear weapons supply reaching ten thousand warheads globally, prompted scientists in the early 21st century to herald global disaster. The Bulletin of the Atomic Scientists set its symbolic Doomsday Clock to 3 minutes to midnight in 2015, and the International Council for Science began covert preparations for mass human extinction (a.k.a. Operation Phoenix) in collaboration with the United Nations. Yet grim projections were rendered moot as the subsequent decades witnessed a series of paradigmatic sociopolitical reforms, ultimately ending in the birth of the Earth Republic. It can be argued that the coalition of the nation-states into a single government committed to planetary sustainability, though popularly attributed to the social main-streaming of environmentalism and egalitarianism (a.k.a. the P.C. Movement), was in fact made inevitable by the geo-political, economic, and sociopsychological implications of scientific developments: specifically those made in the areas of intraplanetary travel, telecommunications, automation, and space exploration.

Grooming of the Global Citizen: The Geopolitical and Sociopsychological Impacts of

Globalization

From the dawn of the Globalization Age in the 19th century, advances in interna-

tional travel and telecommunications enabled the large-scale mobility of humans and

knowledge, over time resulting in a society that was at once more diverse (racially and

ethnically) and more homogenous (psychologically and sociopolitically). First, decreas-

ing costs and risks of long-distance migrations led to the unprecedented intermixing of

race and culture, which in turn led to social tolerance that increased exponentially with

each generation. Second, dramatically improving accessibility to information (in all but

the last remaining authoritarian governments) and the advent of the Internet in the late

20th century led to a gradual convergence in worldviews, with global trends towards

secular humanism and liberalism. Third, greater affordability in air transportation

allowed increasingly liberal youths to witness firsthand a) the human consequences of

global wealth inequity in many Postcolonial countries and b) the consistent successes

(GDP per capita, health, education, freedom and satisfaction with government) exhibited

by the Nordic European countries, leading to additional trends towards global welfare and

social democracy (the latter of which gained rapid traction once adopted by America, the

military and cultural hegemon from the 20th century, under the Sanders administration).

In this manner, the Globalization Age saw the emergence of a generation which

transcended territorial and ideological borders, thus removing two traditional conditions

for international warfare and dissolving the nation-state as a geopolitical and ethno-

cultural entity.

Evolution of Egalitarian Capitalism: The Socioeconomic Impacts of Robotics, Social

Media, and Renewable Energy

Once considered the root of social and economic inequality, the global financial

system evolved in the early 21st century into that of egalitarian capitalism: a result of

advances in automation, virtual communication, and sustainable energy. First, from the

inception of the Industrial Revolution in the mid-19th century, developments in manufac-

turing methods exerted a profound impact on the structure of human society.

Increasing sophistication, efficiency, and affordability of machinery, in particular of

automaton during the Third Industrial Revolution (a.k.a. The Digital Revolution),

gradually rendered manual labor obsolete. Automation served the long-term fiscal

interests of all but the most exploitative corporations (< $1/day wages), largely removing

the financial incentive for international class-subjugation. Second, the instantaneity and

virality of Internet-based social media in the 21st century endowed citizens with

unprecedented democratic power. Behaviors considered unacceptable, of politicians,

individuals, and corporations alike, were publicly condemned with swift force. With such

popular demand for social justice, an ethical and sustainable business model became a

decisive competitive edge. International corporate social responsibility (e.g. the One-for-

One model spearheaded by retail behemoth Toms) became the norm and by the 2030's

the corporation, ironically the entity which perpetuated the former zero-sum system, was

largely responsible for bridging the global income gap and eliminating the economic

hostility which defined the old international arena. Third, several Postcolonial coun-

tries underwent modernization with exponential speed in the early decades of the 21st

century. Without as many existing roads, grid electricity, or plumbing to upgrade, these

developing nations were able to transition directly to solar, wind, microhydro, and biogas

systems. Reaping the advantages of renewable energy, their economies soared, and in a

turning of tables and definitive moment of global solidarity, the Postcolonial governments

and corporations helped the former imperial powers bear the enormous costs of

infrastructure replacement.

Aspirations of Interplanetary Expansion: The Political and Sociopsychological Impacts of

Space Exploration and the Waters of Mars

    Less than four hundred years after its first telescopic observation of space, human-

kind had reached outwards, deploying extraterrestrial probes, building a permanent space

station, and sending forth its sons and daughters to walk the surface of its orbiting moon.

Nonetheless, space exploration remained a distinctly separatist endeavor (specifically

between six government agencies with full-launch capacity): simultaneously a source of

and outlet for international competition. Even the International Space Station, the first

global space collaboration, was predominantly operated by superpowers America and Russia. It was not until the 2015 discovery of water on Mars that humanity underwent a fundamental shift, in both international cooperation and social psychology. First, the discovery was directly cited as the inspiration to fuel Project Mars, founded by Bill Gates, Stephen Hawking, Elon Musk and Mark Zuckerberg: the first truly supranational collaboration, with funding and obligations shared by governments and civilians from 195 nations. The cooperation and resource-pooling between the government space agencies and publicly traded corporation SpaceX led to exponential progress in the aerospace industry, leading to legendary launch *Dragon 2* (the first human spaceflight to Mars). Second, the discovery of Martian water prompted the Second Golden Age (informally the Adamantium Age) of science fiction: an explosion of literature, cinema and visual arts exploring the social and practical implications of interplanetary expansion, which in turn inspired an entire generation to pursue careers related to space exploration. By the 2040's, the new STEM field workforce accounted for over 50% of the labor market. With a mainstream culture dreaming of and actively working towards space colonization, the imagined political community and sense of collective belonging was relocated from "country" to "species": completing the shift from nationalistic individualism to humanist collectivism and delivering the final blow against the competitive attitude upon which the nation-state depended within the former international arena.

<u>Conclusion</u>

A species riven with internal conflicts and armed with large-scale weaponry, coupled with a decaying planet which warmed as if in febrile response against its destructive inhabitants, once made the survival of humanity uncertain to contemporary observers. The unification of the human race into a decisive political body committed to sustainability, though commonly romanticized as a single glorious moment in human history, was in reality the endpoint of a trajectory set by the evolution of science and technology. Concurrent and mutually reinforcing advances in transportation, automation, telecommunications, and spaceflight resulted in global trends of resource sharing, rather than competition: eradicating the logic of self-help inherent in the anarchic setting of the former international arena. The advent of the Earth Republic, hailed as the greatest human achievement, was in fact a technological triumph.

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Each finger hovered in the center of its container, clear of contact with the surrounding walls, as she ran out of bullshit to type.

A weak essay to be sure, but she had only skimmed the assigned readings and didn't know what more to write. What was already written felt both lofty and

childish, but, as the hour drew upon 0700, she no longer gave a damn. She had

missed an entire night's sleep and would already be receiving a 5% grade

deduction. There was no way she'd be able to make it good enough to make an

additional late penalty worthwhile.

The thought of submitting such subpar work stirred resentment in her chest – at

herself for insisting on leaving every assignment to the last minute, and at the

university for making a full-course equivalent in History a graduation requirement.

She knew the importance of understanding the past. But was it necessary to

channel so much energy towards what by definition could not be changed,

especially in the face of so many pressing, *present* issues in society? In their own

day-to-day lives?

She wondered – not for the first time – whether pursuing a tertiary degree was

the right choice. So many of her friends operated their own businesses, all

helping to fund the first humanned mission to Alpha Centauri. They were always

traveling (some of them even off-planet!), eating at the trendiest restaurants and

buying the latest gadgets, and contributing to the community. They were actually

making a difference – while she lived off a student stipend (a mere 4000 credits)

that did not account for the rising expenses in their worldcity.

She sighed, sick of doubt. With a twitch of her index finger she submitted the essay, then pulled her hands from the datahand keyboard and removed the interface visor.

She walked away from the computer system and ordered the bed, which rolled out from the wall as it always did – immediately, smoothly, seductively. With hands trembling slightly from the caffeine drops, she peeled back the pre-heated sheets and crawled into the merciful warmth.

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