

Sufficiency, Sustainability, and Innovation Media Moonshot

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ABSTRACT

This article introduces the role of innovation and exponential technologies to eliminate shortfalls in access to basic needs at a global level while achieving sustainability in four dimensions: economic, social, political and ecological. Next the article reviews the literature concerning the role of films and TV programs on influencing public opinion and producing changes in economic, social, and political outcomes. Several films and TV programs that have achieved this are presented, with documentation of their successes. Then a “media moonshot” is proposed to help develop support for public policies to accelerate progress toward sufficiency and sustainability through innovation. This would be achieved by helping finance a tenfold increase in production of films and TV programs in this field. Various fiction and non-fiction formats would be used. The goal proposed is to reach an audience of at least one billion people with measurable impacts on public opinion and government policies. Several examples of possible films and TV programs are presented.

KEYWORDS

Challenge, Consensus, Ecological, Economic, Exponential, Films, Media, Moonshot, Opinion, Planetary, Policies, Political, Singularity University, Technologies, Television

INTRODUCTION

Perhaps the greatest challenge humankind faces is to meet the basic needs all people on Earth in a way that is sustainable – in four dimensions: economic, social, political, and ecological. Another way to describe this challenge is: how can shortfalls in access to basic needs be eliminated while staying within the safe and just space for humanity – that is within ecological planetary boundaries (Daly, 2015; Raworth, 2017). A growing number of analysts argue that some planetary boundaries are already being breached (Scripts Institution of Oceanography, 2015), and an estimated 736 million people, or 10 percent of the world’s population, still lived in extreme poverty (less than \$1.90 a day) in 2015 (World Bank Group, 2018).

Current economic trends, driven by technology – including robotics, information technology, and artificial intelligence – increasingly threaten employment and social stability. Accelerating biotechnology and nanotechnology also pose political and ethical challenges. These trends are resulting in a move toward populist and authoritarian political systems to maintain or increase an unjust distribution of income and wealth, working against economic, social, political, and ecological sustainability. New public policies, including universal/unconditional basic income (UBI) as a human right and new forms of taxation to support it, are already needed. The urgency to implement such policies and will increase sharply as exponential technological change proceeds. Institutional development has lagged behind the accelerating pace of economic change led by exponential technologies. These technologies are powered by computing power that evolves at rates governed

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by Moore's Law, namely that the number of *transistors* in a dense *integrated circuit* doubles about every two years, with a corresponding increase in computing power and fall in its cost. Examples are robotics, artificial intelligence, nanotechnology, and biotechnology.

A massive change in public opinion and policies is needed at the global level to leverage technological change to meet the sufficiency and sustainability challenge. Films and television programs in various formats can help build public awareness and shape needed public policies.

The size of film and TV markets is impressive. According to UNESCO, in 2015 almost 10,000 feature films were produced in 93 countries (retrieved February 21, 2019, from <http://uis.unesco.org/en/news/cinema-data-release>). Box office and home entertainment (video content sold, rented, or streamed for home use) generated revenue of \$136 billion in 2018 for the global film industry (retrieved February 21, 2019, from <https://www.ibisworld.com/industry-trends/global-industry-reports/other-community-social-personal-service-activities/movie-production-distribution.html>) and 609 million cinema tickets were sold (retrieved February 21, 2019, from <https://www.statista.com/outlook/274/100/cinema-tickets/worldwide#market-revenue>). In 2015 an estimated 1.57 billion households owned at least one TV set. In 2016 the average number of minutes of TV watched per person in some key countries was 270 in the US, 254 in Brazil, 248 in Russia, 193 in South Korea, and 144 in India (retrieved February 21, 2019, from <https://www.statista.com/statistics/276748/average-daily-tv-viewing-time-per-person-in-selected-countries/>).

A television show or film can easily be streamed online, and the number of internet users passed 4 billion in 2018. A rapidly growing number of individuals and households are viewing video content via internet streaming services on computers, tablets, and smartphones. Global subscription video-on-demand revenues topped \$84 billion in 2017 compared with \$35 billion in 2016 (Ooyla, 2018), and this does not include content available free over the internet, for example via YouTube. The percentage of internet users who watch online video content on any device as of January, 2018, was 95% in Saudi Arabia, 82% in China, and 85% in the United States, India, and Brazil (retrieved February 21, 2019, from <https://www.statista.com/statistics/272835/share-of-internet-users-who-watch-online-videos/>).

Films, Tv, Public Awareness, and Consensus Formation

There is an extensive literature on the impact of films and TV on public opinion on issues of economic, social, political, and ecological significance (Adkins and Castle, 2013; Andrews, 2009; Benjamin-Phariss, 2013; Boyes, 2015; Jones, 2011; Nour, 2018; Thoman, n.d.; & Thompson, 2016). These media can help raise public awareness of issues, set agendas, focus public interest on particular subjects, inform debate, and help shape public policies (Happer & Philo, 2013). In this section some important examples of films and TV programs are reviewed, and their impact assessed.

The China Syndrome (1979) is a film starring Jane Fonda as a California TV reporter filming an upbeat series about the state's energy future. While the reporter was visiting a nuclear power plant, a near meltdown occurred and the plant's owners tried to cover it up. Twelve days after the film opened, a nuclear accident occurred at the Three Mile Island (TMI) nuclear plant in south-central Pennsylvania. While the TMI accident didn't produce any deaths, injuries, or significant damage except to the plant itself, it did produce a widespread panic, stoked by *The China Syndrome*. "The nuclear industry, already foundering as a result of economic, regulatory and public pressures, halted plans for further expansion" (Portelli, Martin, & Guarnieri, 2015).

The Day After (1983) is a TV film directed by Nicholas Meyer and first broadcast by the US television network ABC on November 20, 1983. The film depicts a fictional war between NATO forces and the Warsaw Pact that rapidly escalates into a full-scale nuclear exchange between the United States and the Soviet Union. The action focuses on the residents of Lawrence, Kansas and Kansas City, Missouri, as well as several family farms situated near nuclear missile silos. *The Day After* may well be the most impactful film ever made about the devastation of nuclear war. More than 100 million people, nearly two-thirds of the viewing audience, watched the program during its initial broadcast.

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