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Title: The apparatgeist of the moon landing

Year: 2019

Version: Published version

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Please cite the original version:

Jouhki, J. (2019). The apparatgeist of the moon landing. *Human Technology*, 15(2), 136-141.
<https://doi.org/10.17011/ht/urn.201906123153>

From the Editor in Chief

THE APPARATGEIST OF THE MOON LANDING

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Fifty years ago, a decade that was revolutionary in human development in many ways was drawing to a close. This period in the world's history was as famous for love as for war, but also for big and small technological innovations. Consumers became acquainted with acronyms such as ATM, CD, LASER, LED, and UNIX—not to mention the mind-expanding LSD or the less dramatic medical innovation marketed as Valium, the “Mother’s Little Helper” epitomized by the Rolling Stones’ song available for purchase on the recently invented cassette audio tapes. Medical care took a huge step forward when, in April 1969, a mechanical heart was transplanted into a human. And, in the nascent computer field, the first message between two computers on the ARPANET was sent. This event, a half century ago, provided the roots for technological advances that eventually led to the modern-day Internet and World Wide Web (see, e.g., Drummer, 1997, pp. 185–202; Lindop, 2010, pp. 45–54).

Perhaps the most ambitious technological innovation of the 1960s was space travel, with the first human in space being cosmonaut Yuri Gagarin of the Soviet Union in 1961. The space race between the Union of Soviet Socialist Republics (USSR) and the United States of America made the Americans determined to go to the moon before the Soviets and by the end of the decade. That ambitious vision, placing a man on the moon, was fulfilled in July 1969. The small step that astronaut Neil Armstrong took from the lunar lander onto the surface of the moon signified the giant leap forward for human innovation—the grand finale of the 1960s’ technological progress that simultaneously closed a major chapter of the technopolitical rivalry of the Cold War.

One can certainly debate the many technological advances that have made greater immediate and long-term impact on humankind (e.g., the printing press, penicillin, the contraceptive pill, the steam engine) than the Apollo 11 mission to the moon. Nevertheless, the financial challenge, logistical demands, geopolitical significance, explorative dimensions, and the sheer drama of the event made the lunar mission *the* technological act of the 1960s, if not of human history. For example, after the moon landing and amid all the congratulatory greetings from foreign governments and dignitaries, U. S. President Nixon enthused that it was “the greatest week since



the Creation” (Barker, 2011, para. 6). The political as well as cultural value of the moon landing was monumental. This feat, almost unimaginable just 10 years before, was celebrated globally; even in Soviet Union, Russians expressed “white envy”—envy with admiration (Scott & Leonov, 2004, p. 248).

In an article published in *Journal of Interamerican Studies and World Affairs* the year following the moon landing, Kohler and Harvey (1970) went to great lengths to gather global news reactions to the moon landing. In reading the excerpts from newspapers from all over the world, the authors noticed how the awe created by the accomplishment resulted in feelings of a united humankind. For example, President Nixon stated that, for a moment when the lunar lander reached the moon’s surface, “all the people of this earth” were “truly one” (Kohler & Harvey, 1970, p. 3). The *Wellington Dominion* in New Zealand reported that the astronauts who travelled to the moon were “envoys of all men stripped of their national colors.” The same sentiment was echoed in a report by *Die Nieuwe Gids* in Brussels, where the moon landing was seen as a “victory for all humanity,” as it showed that “man is the master of his own future” (Kohler & Harvey, 1970, p. 7). According to *Ngurumo*, a newspaper published Dar es Salaam, Tanzania, the success of America was a “success for every living man” (Kohler & Harvey, 1970, p. 3).

On the other side of the Cold War trenches, China, North Korea, and North Vietnam did not publicize the moon landing at all. However, in the Soviet Union, the event was reported as a “magnificent” or “major” “technical success.” Not surprisingly, the Soviet press emphasized that the moon landing was simply the final outcome of a long continuum of technological progress where the Soviets had taken most of the major steps before the Americans (Kohler & Harvey, 1970, p. 4–6).

The moon landing also had spiritual and existential meaning. According to the *New Delhi Patriot*, the moon voyage was “the extension of man’s mind and the human spirit to a higher plane.” The *Azad* in Pakistan envisioned that the exploration of the moon “will inspire mankind to restoring peace and love among nations.” To the *Johannesburg Star*, the lunar success made people see that the earth is not “a rat race or a battle-field, but “a welcoming and infinitely desirable home for dignified men.” The newspaper was hopeful the moon voyage represented “at last, the beginning of wisdom” (Kohler & Harvey, 1970, p. 4).

Not all editors of the world’s newspapers were as impressed by the moon landing. According to Kohler and Harvey (1970), the Swedes, for example, had an exceptionally critical tone. They reported that the *Stockholm Expressen* had noted, “The United States can handle tremendous technical problems while finding it considerably more difficult to cope with those of a complicated social, political, and human nature.” Moreover, the *Aftonbladet* noticed a certain “intoxication with space ... will swallow astronomical sums of money” that could be used to “battle against poverty under which entirely too many Americans live.” The *Dagens Nyheter* feared that the moon landing took the United States one step closer to “world domination” (Kohler & Harvey, 1970, p. 5).

As the ongoing march of technological innovation within the 20th century rolled over into the new millennium, James E. Katz and Mark Aakhus (2002), in their seminal work, *Perpetual Contact: Mobile Communication, Private Talk, Public Performance*, suggested a new term, *apparatgeist* (after Hegel’s *Zeitgeist*), to refer to a universal tendency of technology to enable new forms of social existence (see also Campbell, 2008, p. 159; Taipale, 2009). Katz and Aakhus (2002) coined *apparatgeist* particularly to refer to mobile devices, and it is applied to understand the social and cultural significance of single technological apparatuses. In a way, *apparatgeist* can be interpreted as the meaning of a technology given to it by users, *nonusers*,

and *antiusers* (i.e., those people who are explicitly against a particular technological innovation). According to the theory, the machine and its “spirit” change the nature and quality of social behavior and organizations. The term covers both expert and folk frameworks and involves both the tangible and intangible aspects, as well as the material and social elements of technology. According to Virginia Yonkers (2015), for example, *apparatgeist* is a device becoming more than the sum of the technology and its affordances—even to the extent that the technology becomes a symbol of a group.

The moon landing was not exactly a piece of technology but rather an event on the timeline of a technological process that drew on advanced social organization and multiple technological innovations, as well as significant financial resources and personal commitment. Yet, in a way, the event itself could be examined in the light of the *apparatgeist* in that the moon landing certainly influenced people’s worldviews and had immense social significance beyond the actual event itself. In this sense, the *apparatgeist* of the moon landing is visible in the newspaper excerpts and people’s positive (and negative) “affordances” of the moon landing. Even if some may have been critical of the financial cost of the event, it is evident that the sheer act of a person stepping on the moon made many experience an exceptional collective identity that was not limited by national borders. No matter where one lived in the world, it was “us” who landed on the moon; it was “our” technological accomplishment. All humankind witnessed the multiple successes, failures, and tragedies that set the stage for the ultimate historical event. And, ultimately, all humankind benefited from the technological advances needed to make space travel a reality.

Consequently, the moon landing was reflected in games, literature, and films—embodying a distinctly new post-lunar-landing reality. This unprecedented event also inspired new contributions in the everyday vernacular, such as a means of venting one’s frustration over the lack of satisfactory technological and social innovation: “We have sent a man to the moon, but still we cannot [X].” The X represents any kind of simple solution that the person feels should have been made already due to the general level of technological and scientific progress.¹ The *apparatgeist* of the moon landing is evident as well in the *antiusers* or even the radical denouncers of the event’s existence, the conspiracy theorists who claim people never went to the moon and the whole event was faked by NASA (see, e.g., Perlmutter & Smith Dahmen, 2008). The *apparatgeist* also manifests in anniversary events commemorating the moon landing when people reproduce the value and meaning of the technological event. One could say that this editorial reminiscing a moon landing that happened half a century ago is a way to uphold its *apparatgeist*.

It is not easy to think of an *apparatgeist* uniting the whole world like the moon landing did 50 years ago. However, if technological development can be directed to alleviate or even stop anthropogenic climate change, green technology might be a worthy contestant. The cost of developing and applying green technology to mitigate global warming successfully would be less than 1% of the world’s collective GDP for a decade, whereas the moon landing cost the United States 2.5 % of its GDP for a decade (e.g., Lafleur, 2010; Ritchie, 2017). It seems, therefore, that financing a green revolution to climate change would not be an unsurmountable problem. However, the “green race,” as compared to the space race, is not as simple to script or ignite humankind’s imagination: There is no straightforward plot centering around a few brave men (*sic*) whose accomplishments and the actual technological device (i.e., the Saturn rocket with the lunar module) can be shared in filmed footage and pictures. Moreover, although the stakes of the green race could be said to be radically more fundamental than those of the

space race, the consequences of the process will not manifest themselves dramatically on one particular day—unless the recent report from the Intergovernmental Panel on Climate Change report (IPCC, 2018) is reissued with evidence that worldwide initiatives have succeeded. Instead of a focused organization with well-known public representatives, the agents bringing about the apparatgeist of green technology will be the billions of citizens and their governments—in collaboration with multitudes of organizations and business entities from around the world—and the results will be gradual, often difficult to distinguish, and frequently exposed to skeptical scrutiny. Hence, it will be interesting to see whether humankind, at some point, can again “be as one” not also rhetorically and for a fleeting symbolic moment as on July 20, 1969, but for a long and sustained period of time engaging in pragmatic problem solving and political acts that transgress national boundaries and benefit the world community.

The article of the current issue of *Human Technology* are not about as dramatic events as the moon landing and global warming or deal explicitly with apparatgeist, although one can say each of their topics is a manifestation of the apparatgeist of digital media, one of the defining technological phenomena of this modern age. As articles of our journal in general do, they investigate technology as more than devices and their affordances. They examine the social and cultural meaning of technology. In the first article, **Kerstin Andersson** takes a scoping look at the vast literature on digital diaspora, that is, how a variety of forms of migrants integrate multiple types of online and social media for a diversity of purposes in their lives. The study provides a foundational look at research in a growing field. Next, in an article based on her vast ethnographic fieldwork data from rural India, **Sirpa Tenhunen** considers how the diffusion of mobile phones over a little more than 10 years has changed local political processes, women’s political involvement, and aspects of women’s agency. In the third article of the issue, **Annukka Jänkälä, Asko Lehmuskallio, and Tapio Takala** explore the use of photos in the online communication during dating. Specifically, they investigated how “forecasted photographs” in online dating app profiles serve to create a desired outcome (i.e., attracting a potential love interest) and then how photographs shared between the new couple, particularly those shared immediately after capture, feed the flows of social interactions over time and through multiple social media. GraphoGame, the serious digital game designed to improve literacy, is the object of study by **Morten Njå**. However, rather than focusing on its outcomes, Njå investigated the often overlooked dimension of game design and its significance for learners’ progression through the game. In the fifth article of the issue, **Tina Kavčič, Melita Puklek Levpušček, Maja Zupančič, Mojca Poredoš, and Chris Bjornsen** take a look at social media and mobile phone use—and abuse—in a cohort of Slovenian emerging adults. They explored how age, gender, and the Big Five personality traits predicted social media and mobile phone addiction, as well as the problematic practices of phubbing, creeping, and catfishing. In the final peer-reviewed article, **Lucia Monacis, Pierpaolo Limone, Flavio Ceglie, Giancarlo Tanucci, and Maria Sinatra** investigated how the number of years of teaching experience and their enjoyment and acceptance of technology predicted teachers’ educational practices of integrating ICTs into their classrooms. Among other things, they found that long experience of teaching tends to mean less enthusiasm in adopting technology in the classroom.

In addition to the six articles, the current issue includes a book review Raul Pertiarra who is also one of the authors of our very first issue published in 2005 and a member of our editorial board. In his review, Pertiarra analyzed the meanings of contemporary technology by reading

what he calls “an important antidote to the often-soporific claims of the information society,” that is, a book titled *Disorder and the Disinformation Society: The Social Dynamics of Information Networks and Software* by Jonathan Paul Marshall, James Goodman, Didar Zowghi, and Francesca da Rimini.

ENDNOTES

1. A quick search of the Web reveals that *X* can be a wide variety of things, such as a decent sports bra, a reliable printer, or the elimination of traffic jams.
2. Tenhunen has also assisted *Human Technology* in this issue by overseeing the review and revision processes of the articles by Jänkälä et al. and Andersson.

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Human Technology
ISSN 1795-6889
www.humantechnology.jyu.fi