



SCIENCE FICTION: Y PREOCCUPATION?

By Nick Pollard, Sandra Schiller

SF has been a vehicle for many scientists, philosophers, authors of literature and has a rich vein of writing about health issues, whether produced by authors with clinical backgrounds or else by others concerned with health topics. In occupational therapy, Wilcock (1999) set out the forward looking narrative of human occupation as doing, being and becoming and referred to this as 'science fiction.' She obviously subscribed to the idea that speculative fiction has the power of being thought provoking, or proving to be at some future point an identifiable moment where some key concept was first imagined, or its potential use first defined. Punk expresses an orientation towards counterculture, i.e. a culture that moves against the existing culture by anti-capitalist, being consumerist or anti-establishment, for example. So which strictures of science or violations of planetary boundaries do the stories in this collection describe? And which emerging counterculture in pursuit of a more socially and ecologically responsible future healthcare can be glimpsed from them? Commenting on the collection, we would like to

focus on the following three key areas:

STRANGE PROMISE

Often in SF scenarios the ordinariness of outlandish things is part of the 'gosh wow' effect. SF Thomas Disch suggested that SF had permeated and come to dominate the world, even if this never turned out to be the way it was originally imagined. As a genre, it has not been a reliable guide to the present, but the SF question 'what if...?' opens doors on explorations of the possible, or even what may seem impossible, that may eventually become the shapers of our occupational performances environments. For example, mobile phone and its live chat functions were long familiar Trek viewers of Star Thunderbirds and Alexa's operation of the internet of things might be a benign and more limited reprise of Hal's initial nurturing functions in Arthur C Clarke's 2001 (1990 [1968]). Elon Musk's electronic neuralink, a USB socket interface with the brain (Kulshreshth, Anand, & Lakanpal, 2019; Musk, 2019),

which has potential for clinical benefits for a range of disorders and applications of telecare, is another well-established SF trope, the human computer interface (Schmitz, Endres, & Butz, 2010).

TECHNOLOGY AND ETHICAL DILEMMAS

Developments at the present time foreshadow ethical dilemmas arising from technological advancements. Given the attractive medical and applications social care technologies such as WeChat (e.g. Chen et al 2020; Wang, Zhang and Zeng, 2019), which are reportedly similar to Musk's projected phone apps, it would make perfect business logic to plug one Musk project into the other. The consequences for health outcomes would be immense. the avoidance of unhealthy made behaviours. prevention automatic, health and social care costs reduced and the need for so many staff done away with.

Technology and what it offers, especially where it offers clinical improvements can be very enticing, but there are transferable aspects of everything we develop which can open more doors than we might have imagined. On learning of Hiroshima, and reacting to this outcome from the application of his atomic theories, Einstein reportedly said 'If I had only known. I would have been a locksmith.' Someone else would have had the responsibility for making the chain of discoveries that led to the atom bomb instead, and who knows what constraining incarcerating purposes Einstein's

locks may have been put. The future is inevitable and almost anything you can imagine in it, someone can probably find a way to do, but that does not absolve clinicians tempted by technological benefits from the need to reflect, for example:

McCaffrey's Ship Who Sang (1972) might superficially suggest some possible outcomes for people with physical disabilities but was not by author imagined an disabilities, and is an example of another trope in SF, the melding of technology with disability as a comforting and normalising vision 2020). An technology might be worked around the strengths and assets of people with disabilities actively making decisions about their minds and bodies (Block et al 2016). The weakest link in the security of any technological system operation is the human element (Bhusal, 2021), and so it may also be said of medicine and bioethics (Koch. 2012).

Foucault's imprisoning panopticon penetrates to the device in our pockets, connects to the cameras in our front doors, the robot remote selectors in our entertainment hardware and silently witnesses all our interactions so as to absorb the algorhythmic data from occupations (Wood, 2016). Through telecare we can be Winston Smith's haranguing physiotherapist Orwell's Nineteen Eighty-Four (1991/1948); we can forensically observe and divide social relations through the scientific Taylorism of the early Soviet era satirised in Zamyatin's We (1924/1993), which

the total coercive power of WeChat seems to be making everyday reality in China (e.g. Harwit, 2017; Tian, 2021). WeChat functions combined with the neuralink, if feasible, could epitomise biopower as a total tool of governmentality (Foucault within states if not, in corporate hands, the world.

The total nature of such power and ideology is set out in both Arendt's The Human Condition (2013 [1958]) and exultantly in Rand's Atlas Shrugged (2005 [1957]). Arendt revealed the logic of death inherent in totalitarianism - and where political processes, even in democracy, are reduced as a means to an end (Villa, 2018); Rand's vision of free market rational selfishness involves wholesale destruction of resources and the production of inequality to justify a free market something which many corporate leaders apparently seem to abide by (Shafer, Wang, & Hsieh, 2020). This a well-established SF trope, explored by numerous authors - Pohl Kornbluth's the and Space Merchants (2003 [1953]), Adlard's Tcity trilogy (1971, 1972, 1975) while many more dystopian authors (e.g. Brunner, 1984 [1972], Disch, (2014 [1974]), and much of Octavia Butler, Philip K Dick and JG Ballard's works depict everyday life from the perspectives of hard pressed survivors.

(EN)COUNTERING **ECOLOGICAL** (IM)POSSIBILITIES

While the growing threat of climate collapse in the form of floods and

gigantic fires dominates the news, SF today mainly works off the dystopian present. Looking for utopian counter-designs, however, shows that social-ecological utopias have led a rather meagre existence in science fiction. In the utopia-prone 1970s, Ernest Callenbach's international bestseller Ecotopia (1975) described Northern California, Washington and Oregon becoming independent of the USA in 1980 and establishing their own ecological and social society based on bioregionalism, the renunciation of "dirty" energy and car traffic. However, the book's voluntary segregation of white and black populations is alienating and was also sharply criticized at the time. In SF, sustainability in the use planetary resources is restricted to visions for life on Earth. Robinson's Stanley Trilogy (1992-96), for example, tells of a revolution on Mars in which the declare independent of Earth and move to a decentralized eco-socialist form of economy. The intensified interest in space travel (with a focus on economic resource extraction. science and armaments technology) that we have seen in recent years shows that the motive of emigration to other planets is still firmly a part of the popular scientific horizon of longing.

Do living planets exist? While science assumes that this is not the case, SF literature has followed what physician and physicist James Lovelock (1979) suggested in his Gaia hypothesis: If you look at the Earth and consider not only all the non-living matter it is made of but also everything that is alive, then you can interpret it as a kind of "superorganism." Through various feedback mechanisms living beings and their environment influence each other in such a way that the conditions for life remain optimal. Meanwhile, the "Medea hypothesis" presented by the paleontologist Peter Ward (2009) has by contrast stressed the enormously negative impact life planet, have on a demonstrated by the human activities leading to the climate crisis, for example.

SF COUNTERCULTURES IN HEALTHCARE?

People have always told of their actions in the world through stories. stories in this issue Healthpunk are of a future in which humanity prevails over the strictures of science or at least the power over science, whether this takes the form of ecohealth systems of living well, through recognition of the importance of pelvic floor health or through the use of advanced technology enhance human to connectedness in a double-edged new era of empathy. The stories often make the point that in the future difficult technical ideological problems of intervention may be overcome. In the process, professional strictures transmission of specialist knowledge may be beneficially challenged by common sense, and the recognition of real needs and subjectivities, which may be a conceptual advantage of using exploration through engaging narrative. For example, the new centaurs of Canicross call into

established question the divide human and animal between healthcare, while the future body workers use established manual treatment techniques for a new goal, i.e. taking action against climate change as a psychosocial remedy. In some of the stories, humans have learned how to adapt to a hostile environment – by creating ancestral futures based on respect demarcated lands and guaranteed life, or even by transcending the limitations of homo sapiens. In these scenarios, long-dominant thinking modes that emerged during the period of industrialization, such as the importance of time measurement, have lost their significance drastically changed circumstances require a collective reorientation. Night swimming is a metaphor for such a kind of value orientation, where reciprocal acts of giving and receiving help lend purpose to future healthcare professionals. After all, in the face of the climate crisis, emotions may not necessarily be turned into light, but form the crucial basis for human connectedness. Humans are not in this alone, as "a collection of connections made stronger through each other" can also be observed in a stand of trees.

REFERENCES

Adlard, M. (1971). Interface. Sidgwick and Jackson.

Adlard, M. (1972). Volteface. Sidgwick and Jackson.

Adlard, M. (1975). Multiface. Sidgwick and Jackson.

Arendt, H. (2013 [1958]). The Human Condition. The University of Chicago Press.

Bhusal, C.S. (2021). Systematic Review on Social Engineering: Hacking by Manipulating Humans. Journal of Information Security, 12, 104-114, https://doi.org/10.4236/jis.2021.121005

Block, P., Kasnitz, D., Nishida, A., & Pollard, N. (2016). Science (Fiction), Hope and Love: Conclusions. In P. Block, D. Kasnitz, A. Nishida & N. Pollard (Eds). Occupying Disability: Critical Approaches to Community, Justice, and Decolonizing Disability. Dordrecht. https://doi.org/10.1007/978-94-017-9984-3 26

Brunner, J (1984 [1972]). Arrow Books.

Callenbach, E. (1990 [1975]). Ecotopia: The Notebooks and Reports of William Weston. Bantam.

Chen, X., Zhou, X., Li, H., Li, J., & Jiang, H. (2020). The value of WeChat application in chronic diseases management in China. Computer Methods and Programs in Biomedicine, 196, 105710. https://doi.org/10.1016/j.cmpb.2020.105710

Clark, A.C. (1990 [1968]). 2001: A Space Odyssey. Orbit.

Disch, T.M. (2014 [1974]). 334. Vintage.

Disch, T.M. (2000). The dreams our stuff is made of: How science fiction conquered the world. Simon and Schuster.

Foucault, M. (1990). The history of sexuality: An introduction, volume I. Trans. R Hurley. Vintage

Harwit, E. (2017). WeChat: Social and political development of China's dominant messaging app. Chinese Journal of Communication, 10(3), 312-327. https://doi.org/10.1080/17544750.2016.1213757

Koch, T. (2012). Thieves of virtue: when bioethics stole medicine. MIT Press.

Kulshreshth, A., Anand, A., & Lakanpal, A. (2019, October). Neuralink - an Elon Musk start-up achieve symbiosis with artificial intelligence. In 2019 International Conference on Computing, Communication, and Intelligent Systems (ICCCIS) (pp. 105-109). IEEE. doi: 10.1109/ICCCIS48478.2019.8974470

Lovelock, J. (2000 [1979]). Gaia: A New Look at Life on Earth. Oxford Univ. Press.

Musk, N.E. (2019). An Integrated Brain-Machine Interface Platform With Thousands of Channels. Journal of Medical Internet Research, 21(10) e16194, https://doi.org/10.2196/16194

Orwell, G. (1991 [1948]). Nineteen Eighty-Four. Penguin.

Pohl, F., & Kornbluth C.M. (2003 [1953]). The Space Merchants. Orion

Rand, A. (2005 [1957]). Atlas shrugged. Penguin.

Robinson, K. S. (2021 [1992]). Red Mars: Book 1 of the Mars Trilogy. Penguin Random House.

Robinson, K. S. (2021 [1993]). Green Mars: Book 2 of the Mars Trilogy. Penguin Random House.

Robinson, K. S. (2021 [1996]). Blue Mars: Book 3 of the Mars Trilogy. Penguin Random House.

Schalk, S. (2020). Wounded Warriors of the Future Disability Hierarchy in Avatar and Source Code. Journal of Literary & Cultural Disability Studies, 14(4), 403-420.

Schmitz, M., Endres, C., & Butz, A. (2010). A survey of human-computer interaction design in science fiction movies. In 2nd International Conference on INtelligent TEchnologies for interactive enterTAINment. http://dx.doi.org/10.4108/ICST. INTETAIN2008.2476

Shafer, W. E., Wang, Z., & Hsieh, T. S. (2020). Support for economic inequality and tax evasion. Sustainability, 12(19), 8025.

Tian, X. (2021, March). An interactional space of permanent observability: WeChat and reinforcing the power hierarchy in Chinese workplaces. Sociological Forum 36(1), 51-69.

Villa, D. (2018). Totalitarianism, Tradition, and The Human Condition. Arendt Studies, 2, 61-71.

Wang, G., Zhang, W., & Zeng, R. (2019). WeChat use intensity and social support: The moderating effect of motivators for WeChat use. Computers in Human Behavior, 91, 244-251.

Ward, P. (2009). The Medea Hypothesis: Is Life on Earth Ultimately Self-Destructive? Princeton Univ. Press.

Wilcock A.A. (1999), Reflections on doing, being and becoming. Australian Occupational Therapy Journal, 46, 1-11. https://doi.org/10.1046/j.1440-1630.1999.00174.x

Wood, D. M. (2016). Beyond the panopticon? Foucault and surveillance studies. In J.W. Crampton & S. Elden (Eds.) Space, Knowledge and Power: Foucault and Geography (pp. 257-276). Routledge.

Zamyatin, Y.I. (1993 [1924]). We. Translated by C. Brown. Penguin

Brunner, J (1984 [1972]) London: Arrow Books

Callenbach, E (1990 [1975]). Ecotopia: The Notebooks and Reports of William Weston. New York: Bantam.

Chen, X., Zhou, X., Li, H., Li, J., & Jiang, H. (2020). The value of WeChat application in chronic diseases management in China. Computer Methods and Programs in Biomedicine, 196, 105710.

Clark A.C. (1990 [1968]) 2001: A Space Odyssey. London: Orbit.

Disch, T. M. (2014 [1974]) New York: Vintage.

Disch, T. M. (2000). The dreams our stuff is made of: How science fiction conquered the world. New York: Simon and Schuster.

Foucault, M. (1990). The history of sexuality: An introduction, volume I. Trans. Robert Hurley. New York: Vintage

Harwit, E. (2017). WeChat: Social and political development of China's dominant messaging app. Chinese Journal of Communication, 10(3), 312-327.

Koch, T. (2012). Thieves of virtue: when bioethics stole medicine. MIT Press.

Kulshreshth, A., Anand, A., & Lakanpal, A. (2019, October). Neuralink-an Elon Musk start-up achieve symbiosis with artificial intelligence. In 2019 International Conference on Computing, Communication, and Intelligent Systems (ICCCIS) (pp. 105-109). IEEE.

Lovelock, J. (2000 [1979]). Gaia: A New Look at Life on Earth. Oxford: Oxford Univ. Press.

Musk, N.E. (2019). An Integrated Brain-Machine Interface Platform With Thousands of Channels. Journal of Medical Internet Research, 21(10).

Orwell, G (1991 [1948]) Nineteen Eighty-Four. London: Penguin.

Pohl, F. & Kornbluth CM (2003 [1953]) The Space Merchants. London: Orion

Rand, A. (2005 [1957]). Atlas shrugged. London: Penguin.

Robinson, K. S. (2021 [1992]). Red Mars: Book 1 of the Mars Trilogy. New York: Penguin Random House.

Robinson, K. S. (2021 [1993]). Green Mars: Book 2 of the Mars Trilogy. New York: Penguin Random House.

Robinson, K. S. (2021 [1996]). Blue Mars: Book 3 of the Mars Trilogy. New York: Penguin Random House.

Schalk, S. (2020). Wounded Warriors of the Future Disability Hierarchy in Avatar and Source Code. Journal of Literary & Cultural Disability Studies, 14(4), 403-420.

Schmitz, M., Endres, C., & Butz, A. (2010). A survey of human-computer interaction design in science fiction movies. In 2nd International Conference on INtelligent TEchnologies for interactive enterTAINment. http://dx.doi.org/10.4108/ICST. INTETAIN2008.2476

Shafer, W. E., Wang, Z., & Hsieh, T. S. (2020). Support for economic inequality and tax evasion. Sustainability, 12(19), 8025.

Tian, X. (2021, March). An interactional space of permanent observability: WeChat and reinforcing the power hierarchy in Chinese workplaces. In Sociological Forum (Vol. 36, No. 1, pp. 51-69).

Villa, D. (2018). Totalitarianism, Tradition, and The Human Condition. Arendt studies, 2, 61-71.

Wang, G., Zhang, W., & Zeng, R. (2019). WeChat use intensity and social support: The moderating effect of motivators for WeChat use. Computers in Human Behavior, 91, 244-251.

Ward, P. (2009). The Medea Hypothesis: Is Life on Earth Ultimately Self-Destructive? Princeton, Oxford: Princeton Univ. Press.

Wilcock A.A. (1999) Reflections on doing, being and becoming. Australian Occupational Therapy Journal, 46, 1-11.

Wood, D. M. (2016). Beyond the panopticon? Foucault and surveillance studies. In JW Crampton & S Elden (eds.) Space, Knowledge and Power: Foucault and Geography (pp. 257-276). Abingdon: Routledge.

Zamyatin, Y.I. (1993 [1924]) We. Translated by Clarence Brown. London: Penguin



Nick Pollard

https://orcid.org/0000-0003-1995-6902

Sandra Schiller²

https://orcid.org/0000-0001-5970-6831

¹College of Health and Wellbeing Sciences, Sheffield Hallam University, UK ²Faculty of Social Work and Health, HAWK University of Applied Sciences and Arts, Hildesheim, Germany

Contact: n.pollard@shu.ac.uk sandra.schiller@hawk.de