AI: lessons from the history of Western imperialism

Gurnam Singh

The *Phaedrus* is a book written by Plato around 370 BC, on the topic of love, but it also includes a very insightful section about the vices and virtues of the then relatively new information technology of writing. The arguments are captured in a dialogue between the protagonist Phaedrus, who makes the case for writing, and Socrates, who never wrote a word in his life, offering a defence of the oral tradition. Phaedrus begins by sharing a speech he heard from a renowned orator named Lysias, who argues against the merits of love and relationships. The speech is a written composition, and Phaedrus praises it as an excellent piece of writing.

In the dialogue, Socrates acknowledges that writing has its uses, particularly as a means of preserving knowledge and enabling communication across time and distance. However, he urges caution and emphasises the importance of oral discourse and personal interaction as superior methods of acquiring knowledge and engaging in philosophical inquiry. Socrates asserts that the living dialogue, with its back-and-forth exchange of ideas, is a superior form of communication to writing, highlighting its static nature, the potential for misinterpretation and, due to incompetence or malice, the possibility that the written record may distort historical truth.

And so, the debate continues . . . The general conclusion one can draw from this dialogue is that new technologies, such as writing then and today the internet, have their advantages and disadvantages. Occasionally technology can be disruptive to such an extent that we almost see a paradigm shift taking place; the advent of the nuclear bomb is one such example. But the question I want to pose is that rarely if at all is technology neutral; aren't there almost always winners and losers?

The period from the late 18th to the early 20th century, some 125 years, represents a moment in human history where, through the industrial revolution, we see a dramatic transformation of almost every aspect of life on a global scale. Not only has this period of industrialisation changed human lives, for better or worse, it has also had devastating impacts on the natural world and non-human life. Indeed it is generally accepted that there is a correlation between climate change and the use of non-renewable fossil-based energy sources.

Many observers suggest that today we are going through another revolution of arguably more epic proportions and transformative effects - that is, the digital revolution. The scale of this transformation is difficult to fathom though. With the recent developments in artificial intelligence (AI) and machine learning systems the boundary between science fact and science fiction appears to be rapidly diminishing. In this brief introductory presentation, by reflecting on the history of technological development and Western imperialism I want to highlight some of the possibilities and real dangers posed by AI regarding the question of human exploitation.

Whilst the future is notoriously difficult to predict, some pointers can be gleaned from a look at the past. As the historian David McCullough once said: 'History is a guide to navigation in perilous times' (1992). One of the most dramatic effects of the industrial revolution was the transfer of work from people's homes and small workshops to large-scale mechanisation and automation of work done in factories. Amongst other things, this pattern resulted in huge gains in productivity and profits for the factory owners and a general improvement in living standards for all.

However, there were many losses as well. The advent of modern industrialised production methods led to a decline in the autonomy and creativity of trades, with many traditional crafts, skills and trades disappearing altogether. For the workers in the factories, whilst new job opportunities did emerge, the price to pay was often a loss of autonomy and a lack of intellectual stimulation. This effect is famously depicted by Charlie Chaplin in his silent movie *Modern Times*. Chaplin provides a devastating critique of industrialised capitalism, which he felt resulted in depriving workers of agency by reducing them to mechanical objects, leading to misery and alienation.

In his book *Economics and Empire*, David Fieldhouse (1973) suggests that the land area of the world controlled by Europeans increased from 35 per cent in 1800 to 84.4 per cent in 1914. In seeking to explain this phenomenal expansion, historians have focused on the motives of the colonisers. However, historian Daniel Headrick (2012), in his work on imperialism and the role of technology, argues that such motives would have been impossible without the means, and here technological developments of the period were critical to 'successful' conquest. Here one isn't simply talking about informational technologies but all means by which humans use the materials

and energy in the environment for their ends, beyond what they can do with their bodies alone (Headrick, p3). And it is through the development of such technologies that humans have gained or can gain power over nature. One of the myths of Western imperialism is that white Europeans came to dominate the world because of greater intelligence that enabled them to develop technological superiority. Whether it was related to weaponry, transportation, governmentality, communications or education, technological superiority enabled them to establish more permanent control over colonised territories, and eventually global dominance.

One can and should challenge the claims of racial superiority, not least given that 'over the course of human history, the tehnological advantage of the West over other cultures is a recent phenomenon' (Headrick, p4). However, there is an argument which suggests that, given the unique nature of Western capitalist expansionism, colonialism and imperialism were inevitable products of this drive. Western technological development is not a consequence of greater moral or intellectual authority, as we are told, but of an insatiable demand for raw materials and exotic stimulants, on the one hand, and their need to expand their spheres of influence and impose their will on non-Western peoples on the other.

A cursory scan of deep human history tends to suggest that technological change is mostly iterative but that occasionally, as we have seen in the past 200 years, it can be disruptive to such an extent that we almost see a paradigm shift taking place, and when this happens the reach can be far and wide.

Nobody can dispute that today's advanced information technologies have radically and irreversibly changed the way we work, play, learn, travel, consume, communicate and engage with each other. The speed of technological development is breathtaking and only the brave would venture to predict where it might end, especially now as we enter a new phase of AI. Indeed, some of the current developments in chatbots that can simulate 'naturalistic' dialogue with humans and computers are leading to talk about the emergence of a 'post-human' age, where increasingly the dividing line between humans and computers becomes blurred. Though universities tend to pride themselves on upholding long-established academic conventions and traditions that can be traced back to Plato's Academy in ancient Greece in 387 BC, even the dustiest institutions have been thrown into panic following the relatively recent appearance of the chatbot ChatGPT.

With most technological developments, whether it was the invention of automated spinning machines, the internal combustion engine, or now AI, there are always winners and losers; integration of technology into our lives in this regard is a double-edged sword: while technology can appear empowering, it can also create barriers if applied without thought, especially as regards its primary and - most critically - secondary impacts on existing inequalities. One of the many perceived advantages of modern computer-based technologies, and of AI in particular, is their capacity to facilitate personalised learning, especially through online virtual spaces. Indeed, it is argued that online learning offers new possibilities for us to network and connect with people and to access knowledge in ways that would have been impossible in real-world spaces, and that this is a game changer.

This may be true, but one should also not forget the qualitative difference between the real and the virtual. More recently, more through necessity than design, following the COVID-19 pandemic and the lockdown, we saw a rapid and unprecedented shift towards online learning, to the extent that, despite the end of the pandemic, it is unthinkable that we could return to pre-pandemic pedagogical norms. Both traditional teaching and traditional scholarship in HE are finished. However, many express a real fear of the disembodied nature of online education and the integration of AI. In a recent piece entitled 'Disembodied AI and the limits to machine understanding of students' Mitchell Nathan (2023) argues that 'autonomous disembodied AI systems are fundamentally incapable of understanding embodied interactions due to their disconnect from sensorimotor and sociocultural interactions with their environments, and therefore should not be directing consequential educational decisions'.

However, given the double-edged history of technological innovation discussed earlier, especially in the current period, where within a matter of months we have moved discontinuously from class-based pedagogy as the norm to online digital pedagogies, we must pause and reflect on the potential hazards and dehumanising effects. As Bauman (2003) states, "Unlike 'real relationships', 'virtual relationships' are easy to enter and to exit. They look smart and clean, [and] feel easy to use when compared with the heavy, slow-moving, messy real stuff' (Bauman, 2003: xii).

Whilst it would be hard to argue against the benefits of a whole raft of new information technologies for all students, it is also true that technological change has historically tended to benefit the most advantaged. Similarly, if one looks at this issue through the lens of race and Western colonialism, we see technological innovations in the development of tools for oppression and dominance (e.g. surveillance, punishment, incarceration, medicalisation etc) of those othered as non-white and/or non-European. Arnold (2006), for instance, offers a wide-ranging discussion of how technology functioned within specific parameters of time, place and culture in the colonial context. The important point is that not only were new technologies developed and deployed to advance the imperial project, but the idea of

technological innovation itself overlaid racial tropes associated with Western civilisation and the primitiveness of the natives. Specifically, concerning the online world, Ruha Benjamin (2019) argues that technological frameworks such as AI, digital surveillance and digital marketing automate and digitise human racism and discrimination.

Accordingly, some argue that we need to move forward cautiously, with some even warning of AI heralding a new age of 'algorithmic oppression'. This is where established unequal relations and practices become reproduced in increasingly subtle ways in the online world, resulting in enriching the advantaged at the expense of the poor and marginalised. Safiya Noble's research into Google highlights deep levels of discriminatory racist biases, suggesting that algrorithms used in search engines privilege whiteness (Noble, 2018).

At the moment it is hard to make any definitive judgement of the impact of AI tools such as ChatGPT, but my guess is there will be gains and losses, and for some more losses than gains. In this sense, what matters is not only the quantitative benefits such technologies may bring but the price one may have to pay. Take, for example, Sat Nav systems or Google Maps. I am pretty sure most people live by these tools and will rarely make a journey without them. And I am also sure that, give or take the occasional trip where one has been sent down some dead end, the tools have worked very sell and enabled one to get from A to B in an efficient way. So, going back to the dialogue between Phaedrus and Socrates, what are the costs for these clear benefits? And, in rather paradoxical terms, the answer is that, in managing to successfully travel around, we are losing the ability to navigate! In short, have we become hostages to the tool to get us around? One can draw a similar parallel with the advent of the handheld electronic calculator, which resulted in most of us forgetting even how to do the twelve times table! In truth, most new technologies have a similar impact in that, as well as gaining something, we individually or collectively lose something. Given the almost irresistible nature of technology, the challenge is not to avoid it but to be critically alert to the downsides.

There are many reasons why one might and/or should resist technological innovation. Some of these, such as lack of time, personal preference and general resistance to change, are less defensible than others that raise important ethical and pedagogical questions. History would suggest that with most technological developments there are always winners and losers, and that integration of technology into our lives is a double-edged sword; it can appear empowering, but it can also create barriers if applied without thought, especially concerning its primary and, most critically, secondary impacts on existing inequalities. That said, anticipating the impacts of new technologies such as AI is a much more uncertain task.

One of the features of tranformative change is its unpredictable nature; we simply cannot know the future until it arises. However, we can learn from the past, and from our basic beliefs about our purpose, ethics and duties. In the industrial revolution, along with the ascendancy of the capitalist factory bosses and mass exploitation of all kinds of labour, we also saw the emergence of powerful trade unions, social movements and democratic systems of governance. But the question of how AI will impact the world of work, both its nature and division of labour and its systems of governance, is almost impossible to comprehend. However, we must heed Harvard philosopher Martha Nussbaum's warning that 'capacities for critical thinking and reflection are crucial in keeping democracies alive and awake' (Nussbaum, 2010, p. 10). And in this regard, universities have arguably an even more crucial role to keep critical thinking alive, and that means harnessing technology, but not at the expense of losing one's sense of purpose.

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