This reply to the second issue of On Education asks whether the current debate on post- and transhumanism does not merely reflect and repeat cultural patterns of the human-machine relationship. My question is based on the observation that frequently, in the context of technology-related trends or crises, little attention is paid to possible precursors. This observation also applies to post- and transhumanism when they are perceived as ideas that foster or respond to innovations, if not radical upheavals. However, today’s accelerated technological change, based on advancements in artificial intelligence, neural networks, machine learning and increasing computing power, should be understood in the context of permanent, albeit sometimes abrupt, transformations that constantly pose new challenges. I therefore contend that the debate on post- and transhumanism should take greater account of historical perspectives. The ahistorical mode of presentism, an epistemological position associated with the risk that phenomena are viewed only in the light of current experience, is of limited help in estimating the relevance of these two concepts. Three examples will illustrate why post- and transhumanism need to be seen historically and in the context of cultural development.

First, the suggestions made in this issue could be further specified by reference to intellectual history. Considering Janina Loh and Céline Lafontaine, it can be argued that the term posthumanism was charged with meaning in a particular historical context; that is, it was given more relevance when other “post” words became popular (like poststructuralism and postmodernism). Even though posthumanism echoes the idea of the liberal subject from the Enlightenment, its proximity to the cybernetic tradition is interesting, as N. Katherine Hayles illustrates – arguing that three distinct waves of cybernetics shaped the concept of posthumanism and, in this sense, the interplay between embodiment and the liberal subject. In my reading, this is illustrated by the fact that posthumanism is associated with the idea of adapting to the environment as a system (be it the human or the machine). Céline Lafontaine, on the other hand, shows that posthumanism is also to be understood as a critique of modernity and as a reaction to post-war antihumanism. In its most radical form, it becomes transhumanism, meaning that when any political or social utopia has become obsolete, at least humanity can transform at the level of the individual. Complementing the reflections presented in this issue, it could therefore be asked whether in the second half of the 20th century, social visions were replaced by the idea of individual adaptation and improvement measures, and what this means for education.

Second, every landmark technical invention – such as the steam engine, the car or the computer – has awakened new hopes and raised new fears. Epochs of rapid change add to impressions of crises and uncertainty and on this basis, concepts are developed to grasp and tackle them. In the eighteenth century, for example, the art of building automatons, the reconstruction of the body with the help of dolls and a mechanical understanding of the human state became increasingly relevant. Within the context of a discourse on progress (and belief in it), the question of whether a machine develops consciousness through adapting to a human became virulent, and the analogy between living beings and machines became pertinent. This was expressed in literature such as “Frankenstein” and “The man that was used up”, both of which explore the question of whether an artificial figure could develop emotions and therefore experience suffering and love. According to Käte Meyer-Draue, the android, a popular figure of that period, should be interpreted as a mirror, embodying the metaphysical uncertainty of human existence. These fears were allayed in literature by either ensuring the android was destroyed or ridiculed and presented as a fairground sensation. Techno-optimism and -pessimism (the idea that machines become like us and the fear that they might become ultimately superior, culminating in human obsoletion) must therefore be seen as old phenomena, which in turn are newly interpreted in trans- and posthumanist theory. This means that the question of how we can grow up in a technological world is not necessarily new, yet, the question of who should adapt to whom does indeed become more relevant with increasing computing power and is therefore an important concern of society and education.

A third cultural pattern was mentioned briefly by some authors, but not elaborated on; that of religion. However, transhumanism can be considered a contemporary variant of belief in transcendence. As Oliver Krüger argues, the belief that the mind can be removed from our natural body and uploaded onto a computer is to be understood both in the context of the Cartesian body-mind dualism and as a reinterpretation of Jesus’ resurrection. Cryonics (i.e., the idea of cooling the human body in the hope of a future resuscitation) means...
nothing less than the hope of a life after (biological) death. The debate in this issue would therefore have benefited from the consideration of a longue durée perspective, that is engagement with the view that transhumanism or the improvement, perfection and overcoming of being human – including belief in the immortality of the mind after its separation from the body – is embedded in the long history of the Occident. Post- and transhumanism are thus not necessarily identical, despite often being mentioned together. What both concepts do have in common is that they are not to be viewed as the result of recent developments but as the companion and product of a longer transformation of the relationship between humans and technology.

In summary, debates on post- and transhumanism benefit from historical perspectives because historization helps us better understand the reasons why, when and in what context concepts are created or given new meaning. An abstraction of the present and a reflection on how civilization became what it is today also allows us to compare different currents of contemporary and past critique of modernity and high technology culture. By bringing the dimension of time into play and refraining from presentism, historical perspectives create a framework for diagnosing contemporary developments and help us localize and relativize current hypes, hopes and fears.


4 La vie des idées #14, 2016.


6 Mary Shelley. 1818. Frankenstein; or, the modern Prometheus. London: Lackington, Harding, Mavor & Jones; Edgar Allan Poe. 1839. The man that was used up. Philadelphia: Burton’s Gentleman’s Magazine.


Recommended Citation


About the Author

Barbara E. Hof is a doctoral candidate at the Institute of Education at the University of Zurich. Her research interests include nuclear history, the social history of big science, the intersection of cybernetics and educational technology and the cultural history of artificial intelligence. Her recent article “From Harvard via Moscow to West Berlin: educational technology, programmed instruction and the commercialisation of learning after 1957” was published in History of Education, 2018/4.