Michał Klichowski’s book *The Birth of Cyborgisation: New Eugenics, Transhumanism and the Dawn of Education* of 2014 is the first Polish academic work that provides a pedagogical perspective on the genealogy of cyborgisation. The author argues that the idea of hybridizing man and machine into a CYBernetic ORGanism is actually an ideational hybrid in itself through combining the eugenic thought systems of the first half of the 20th century with the transhumanist concepts that entered the academic discourse in the second half of the last century. One of the main hypotheses of Klichowski’s work (and perhaps the most salient) is that the ensuing techno-progressive discourse implies a very radical critique of the concept of education by indicating that from the perspective of emerging biotechnologies the traditional forms of upbringing, teaching and formation might become expendable in the near future.\(^2\) Bearing in mind the accelerating process of technological development and its rising impact on the educational infrastructure of contemporary society, we simply must acknowledge that

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Klichowski’s book refers to the most crucial and basal question of pedagogy itself: “Why education?”

In order to understand and appreciate the philosophical implication of Klichowski’s hypothesis concerning the techno-progressive “dawn of education” one has to follow his historical interpretation of the connections between eugenics and transhumanism. First of all, as Klichowski argues, one should not ignore the fact that the origins of Western eugenic thought systems go back to Ancient Greece—the cradle of Western pedagogical concepts, as well. Plato and Aristotle both suggested that only sane and strong individuals deserve further development through upbringing and education.1 These ideas—rejected by Christianity—regained popularity in modernity. Klichowski presents his own original typology of modern eugenic thought systems that clearly shows the differences and connections between such influential thinkers like Tommaso Campanella (1568–1639), Thomas R. Malthus (1766–1834), Jean-Baptiste de Lamarck (1744–1829), Herbert Spencer (1820–1903), Joseph-Arthur de Gobineau (1816–1882), Charles R. Darwin (1809–1882), Cesare Lombruso (1835–1909), August F.L. Weismann (1834–1914), Gregor J. Mendel (1822–1884) and Francis J. Galton (1822–1911).2 The rather chaotic development of these ideas finally found a fixed form in the creation of the constitution of the Eugenics Record Office (ERO), founded in 1910 by Charles B. Davenport (1866–1944)—the father of 20th century eugenics.

The main objective of the ERO was research into human genetics and making use of its results in order to overcome problems deriving from inheritance.3 However, Davenport’s research lacked scientific clarity and intellectual honesty.4 It was not the lack of scientific standards per se, but rather the horrible applications of eugenics throughout World War II which led to the downfall of this intellectual movement. Yet, this downfall of eugenics, as Klichowski critically remarks, was only partial, since in the second half of the 20th century its main thought patterns were neither erased nor altered,

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3 Ibidem, p. 45.
but rather rebranded as “genetics.” Rather than the end, one should speak about the birth of a “new eugenics.” However, its novelty—as one should note in all fairness—was not only a matter of altered terminology. As a matter of fact, Klichowski identifies two major differences between “old” eugenics and “new” genetics: (1) unlike eugenics, genetics follows and sticks to scientific methods and research standards; (2) genetics promotes the idea of the “individual good” as a personal right to enhance one’s own genetic code. Without going into further details, I believe it is most important to stress that within the discourse of genetics we will find probably the most influential one that poses the source for its techno–progressive development: “genetic engineering.” Klichowski argues that genetic engineering opens the door to the contemporary idea of “projecting” people by means of biotechnology. It is exactly here, where the idea of man becoming a supremely developed overhuman comes fully into play: the concept of the cyborg—a hybrid between man and machine—is the ultimate implication of genetic engineering and therefore the core of what has entered the scientific discourse as “transhumanism.”

Genetic engineering might be—regardless of personal convictions or belief systems—marked as a new, qualitatively innovative step in evolution: instead of coping with the random effects of mother nature, one could hope for the possibility to choose and therefore design one’s own individuality, personality, physicality, character etc. Isn’t man playing God here? Yes—but isn’t that exactly the conclusion and main statement of Friedrich Nietzsche, whose philosophy seems to the one of the most important inspirations for transhumanism? If God is truly dead (or has never been alive—to be fully precise)—aren’t we somehow forced to play God? One may argue with the announcement

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7 Ibidem, p. 55.
8 Ibidem, p. 61.
9 Ibidem, p. 73.
of Nietzsche concerning the “death of God” on an ontological, metaphysical level—however, the social and cultural consequences of this mind-set seem to be beyond discussion. Why shouldn’t man enhance his existential condition by means of biotechnology if there is no ultimate reason to suffer anymore—no redemption, salvation, or sin? If the absolute occurs to be rather a vacancy than a (personal) being, couldn’t it be a moral obligation to strive for divine status? The idea of (post) human perfection seems to be not only attractive to some techno-progressive science fiction “freaks”—as some may still believe. In fact, one must now ask oneself: why shouldn’t I strive for perfection since all of the metaphysical borders have been overruled and technology is on the way to transgress my human, all too human limitations?

In the second section of his book Klichowski either directly refers to or indirectly implies these questions. He starts off by referring to Nietzsche’s dream of the “overman” (Übermensch) by stating that the German philosopher reduced the human being to its materiality—the body. It is hard to say whether transhumanism in general embraces this notion, since one may also find dualistic, almost Gnostic aspects within the techno-progressive paradigm. Leaving this problem aside, Klichowski presents transhumanism as a technological redefinition of human evolution, which—as we can only speculate—Nietzsche would have probably approved.

The transhumanist image of man is, as Klichowski states after Cory Doctor, analogous to a computer file: you can modify it at will, transfer it to another device, install it on a different system—or, as I would add, delete it. One may argue that this concept of constant alterations and modifications seems to be chaotic—and it surely would be if it wasn’t for the fact that transhumanists consider themselves to be the offspring of the modern Enlightenment.

Also, modern pedagogy is founded on the idea of personal and social improvement—only the means are different: while pedagogy holds to traditional instruments, transhumanism indicates the possibility or even necessity to enhance human development through technological

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13 Ibidem, p. 108
14 Ibidem.
applications. The question is then: couldn't transhuman enhancement completely supersede human education?

Although Klichowski does not provide an ambiguous answer to this question, he clearly indicates that within transhumanist discourse the idea of technological enhancement replacing education seems completely valid. Also here, just as with regard to eugenics, Klichowski presents a typology of the various movements within transhumanism, which are rather complementary than preclusive: bioethical abolitionism, singularitarianism, postgenderism and immortalism.\(^{15}\) This typology is followed by a very brief presentation of the standpoints that criticize transhumanism for being a very risky ideology that barely guarantees any of its offered and proclaimed benefits.\(^{16}\) In particular, transhumanism might be seen as a quasi-religious movement that cannot provide any “true” transcendence on an ontological level. Instead, it might turn out to be the foundation for the development of further going social inequalities, injustice, consumerism, etc.\(^{17}\) At the end of the second section, Klichowski discusses the basic directions of human enhancement: “ego-augmentations” (e.g. the prosthetics) and “endo-augmentations” (e.g. the “Eyeborg”, brain/machine interface or brain-computer interface).

By the end of his analysis Klichowski returns to his initial question: isn’t cyborgisation, i.e. the conscious biotechnological modification of the human body and mind, a synonym for the end of education? If we assume that the emerging technologies could really overcome at least most biological boundaries—what would be the use of traditional forms of pedagogy? A possible (and quite optimistic from a pedagogue’s point of view, by the way) answer might lying in the following observation made by Klichowski: the transhumanistic strive for perfection has one fundamental soft spot—it is imperfect in itself. Instead of opening the human mind for the sheer endless and countless ways of self-development, transhumanism rather seems to follow the idea of perfection as efficiency.\(^{18}\) Humanistic education, however, entails the opposite: it strives for a form of development

\(^{15}\) Ibidem, pp. 116–141.
\(^{16}\) Ibidem, pp. 141–146.
\(^{17}\) Ibidem.
of the human being that would be beyond social functionalism and utilitarianism. There are things and phenomena in this world and in the human experience that have still not been “translated” into the language of genetics and neurosciences. In fact—even if one day the respective procedures would be finally explained, we still would not understand their meanings on an existential level: “We feel that even if all possible scientific questions be answered, the problems of life have still not been touched at all,” says Ludwig Wittgenstein in his famous Tractatus Logico-Philosophicus. As far as I know—no one has proven him wrong on this point to date. Undoubtedly, transhumanism wants to change human life but its legitimization is problematic: it strives to improve our existence on the basis of a much reduced idea of perfection—efficiency founded on constant progress.

Klichowski acknowledges that he perceives his understanding of “cyborgisation” and its possible consequences in the near future as a merely a subjective image of the techno-progressive discourse. However, his book nevertheless unambiguously indicates that transhumanism might not only be the newest alternation but the ultimate end of education in both—theory and praxis. In that sense, pedagogues should understand the urgency for a new, fundamental reflection on the most important and elementary questions concerning the upbringing and formation of man. If, and only if, the transhumanist “threat” would provoke this kind of reflections and therefore result in the rise of innovative ideas in education that would be commonly shared and critically discussed in the widest scope possible—then we might actually all benefit from the “death of man.” First and foremost, I regard Klichowski’s book as a strong manifestation for the ultimate necessity of pedagogy and all of the humanities to reach back to the philosophical roots of any reflection on man.

How will we answer this challenge?

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19 Ibidem, p. 163.