

MANAGING A CYBORG – MANAGING ONESELF

A Transhumanist Perspective on Human-centered Management

INTRODUCTION

In his famous text on *Managing Oneself*, Peter Drucker points out that the ability to manage oneself is crucial for the knowledge worker of the 21st century. He states that “knowledge workers . . . will have to learn to place themselves where they can make the greatest contribution; they will have to learn how to develop themselves.”¹ This is firmly embedded in one of Drucker’s guiding ideas, namely that management is not a mere technical task, but primarily a human-centered activity. However, the advent of a transhuman age that will change the very understanding of what it means to be a human being will have profound consequences for thinking about human-centered management. With this essay, I present some thoughts on what implications the convergence of nanotechnology, biotechnology, information technology and cognitive sciences (NBIC convergence) that is currently going on at a rapid pace - and will sooner or later lead us into a transhuman era, where the boundaries between “natural” humans and “artificial” machines will blur and potentially disappear at some point – will have on managing ourselves. I do so by firstly outlining how Drucker’s approach to managing oneself is firmly embedded in his human-centered management philosophy. Secondly, I briefly outline the technological advances that propel us into a transhuman era. Thirdly, I attempt to answer Drucker’s guiding questions about managing oneself against the background of transhumanism. Finally, I conclude and point to some implications of my thinking.

HUMAN-CENTERED MANAGEMENT AND MANAGING ONESELF

For Drucker, management is an organ of a society of organizations. He sees management as *the* social institution which shapes the society of organizations.² His approach to thinking about management is unique as he combines a holistic perspective with a sharp analytical mind and a way of writing that makes his work accessible to the layman.³ Drucker has described the discipline he is engaged in as *social ecology*. Whereas a natural ecologist is concerned with the biological environment, a social ecologist – such as Drucker – studies man’s man-made environment.⁴ Drucker’s thinking about management clearly puts the individual human being at the center. This is evident by his mention of Mary Parker Follet and Henri Fayol as the first authors to have written about management⁵ and also by his assertion that “the role and function of organization as instrument of human achievement, human growth and human fulfillment, and the need of the individual for both, society and community” is the one recurrent thread that runs through all of his work.⁶

¹ Drucker, P. F. (2001). *Management Challenges for the 21st Century*. New York: Harper Business: 161-195.

² Drucker, P. F. (1992). The New Society of Organizations. *Harvard Business Review*. 70(5):95-105.

³ Kantrow, A. M. (1980). Why read Peter Drucker? *Harvard Business Review*. 58: 74-82

⁴ Drucker, P. F. (1993). *The Ecological Vision: Reflections on the American Condition*. London: Transaction Publishers.

⁵ Zahra, S. A. (2003). An interview with Peter Drucker. *Academy of Management Executive*. 17(3): 9-12.

⁶ Drucker (1993).

Drucker's focus on the individual human being is also apparent in his contribution on *Managing Oneself*. He derives the widespread need for self-management from the advent of the knowledge society and from the fact that knowledge workers are likely to live longer than the organizations they work for: if one cannot expect to be managed (at least not for one's whole life), one will have to manage oneself. In Drucker's human-centered management approach, managing oneself is not about employing particular self-management techniques, but about asking challenging questions about how one works, where one belongs and what contributions one can make as well as about taking responsibility for relationships with other people (which according to Drucker first of all requires to accept that they behave like human beings) and making plans for life after retirement.⁷

A TRANSHUMAN AGE IS LOOMING

We are currently experiencing unprecedentedly rapid advances in a number of technologies. Not only are certain technologies such as biotechnology developing at an enormous pace, but also are nanotechnology, biotechnology, information technology, and cognitive sciences (NBIC) converging and thereby changing the basic building blocks of matter and machines, and even our bodies and brains.⁸ Andrew McAfee from MIT has made clear that the impact of technological development will fundamentally change our economies and societies: "Digital technologies are doing for human brainpower what the steam engine and related technologies did for human muscle power during the Industrial Revolution. They're allowing us to overcome many limitations rapidly and to open up new frontiers with unprecedented speed. It's a very big deal."⁹

These developments will sooner or later culminate in a transhuman age, where we will be able to modify our bodies and brains in a way that overcomes natural limitations and blurs the boundaries between human beings and machines - transhumanism. Ray Kurzweil from Google, a futurist and a mastermind of transhumanism, assumes that by 2030 we will be able to abolish death as life expectancy rises by more than one year each year¹⁰ and by 2045 artificial intelligence will be so far developed that it converges with human intelligence.¹¹

On the body side, this might include artificial organs to replace "worn-down" natural ones or microscopic nanobots fighting diseases and repairing cells (both of which would enable us to live much longer) or the replacement or addition of parts of our body that perform better (think of mechanical legs and arms or cameras in our eyes that transmit some "built-in head-up-display" to our optic nerve). On the brain side, this might include microprocessors built into our brains to greatly enhance computing power and memory or even a permanent connection to the internet enabling us to automatically retrieve any information that is needed in our thinking process without having to search for it. Clearly, such vision is as fascinating as it is disturbing and poses a number of questions

⁷ Drucker (2001).

⁸ Daniel, P., Mialhe, N & Müller, S. (2015). On The Edge Of A New Frontier. *Huffington Post*. June 15: http://www.huffingtonpost.com/patrick-daniel/on-the-edge-of-a-new-fron_b_7067560.html

⁹ Bernstein, A. & Raman, A. (2015). The Great Decoupling: An Interview with Erik Brynjolfsson and Andrew McAfee. *Harvard Business Review*. 93: 66-74.

¹⁰ Goldman, A. (2013). Ray Kurzweil Says We're Going to Live Forever. *The New York Times Magazine*: http://www.nytimes.com/2013/01/27/magazine/ray-kurzweil-says-were-going-to-live-forever.html?_r=1

¹¹ Wiedemann, C. (2015). Ring mir den Kopf von Raymond Kurzweil! *Frankfurter Allgemeine Zeitung*: <http://www.faz.net/aktuell/feuilleton/transhumanismus-bring-mir-den-kopf-von-raymond-kurzweil-13696362.html>

about which enhancements we deem ethical and desirable. In this essay we will, however, focus on what transhumanism means for human-centered management, in particular for managing ourselves.

MANAGING ONESELF IN THE TRANSHUMAN AGE

In order to approach the issue of managing ourselves in the transhuman age in a systematic way, we follow three of Drucker's guiding questions from his *Managing Oneself* text.

What are My Strengths?

Drucker makes very clear that most people have no idea about what they are good at. He proposes a *feedback analysis* to become aware of one's strengths and then place oneself in positions where a meaningful contribution can be made with these competencies. He also points out that one should be aware of personal weaknesses, but that most of the time it makes much more sense to develop competence into top-notch performance than to develop weaknesses into mediocrity. Transhumanism will change this fundamentally. If developing a strength only means getting an additional enhancement, trade-offs between developing different competencies (which are at the heart of Drucker's discussion) dissolve. If limited brain capacity is no longer an impediment we can at once be knowledgeable in any area that we want to. We can be both an amazing runner (just clip on these high performance artificial limbs) and a great basketball player (just install that new eye-arm coordination software). The question then emerges what will be the limiting factor in getting these enhancements: Is it money? Is it power? Or are they really unlimited? The entire notion of performance is nowadays built on the premise that someone who performs better does so due to a combination of talent and hard work and merits to be successful as he has worked hard for it. One is only talented in a limited number of areas and specialization requires committing a lot of time to develop talent into outstanding performance. In a transhuman age, where strengths can be acquired with seemingly no effort at all, this notion of performance and relatedly the definition of a strength as an area of competence more developed than others will drastically change.

If managing oneself does no longer make a difference in terms of allocating time and energy to developing certain competencies, how can we answer the question *What are my strengths?* in a meaningful way? The Italian philosopher Roberto Casati is very skeptical about the capability of machines to be really intelligent. He argues that a lot of the activities that we associate with "artificial intelligence" are in fact quite repetitive, routine tasks, even though they today they might still be part of intelligent peoples' jobs. He argues that machines have no consciousness and therefore cannot take decisions. They are able to carry out what humans tell them to do and they can react to environmental triggers in a way that they were told to do (think of a self-driving car activating the brakes when an object in front of the car appears). According to Casati this is not an intelligent decision but a rather standardized reaction to a trigger which was defined priorly.¹² This example takes us closer to answering the first question: Even though machines can make it much easier and even effortless to do what we want to do, there still needs to be a degree of individualism, something that cannot be calculated away by big data, genome sequencing or artificial intelligence.

¹² Somajini, C. (2015). „Ihre Dummheit ist ihre Stärke“ [Interview with Roberto Casati]. *brand eins*. 17(7): pp. 86-91.

Built-in machines might make it easier to accomplish certain things in the physical world or make certain mental activities much easier. However, there still needs to be a consciousness that ultimately decides what we want to do with these powers and which values guide us in making these decisions. Strengths will no longer be based on physical ability or superior computing power but will be exclusively rooted in individual character, values and personality. This is very much in line with Drucker who has always stressed that we have to orient our innovative activities on the objective reality which is created by technological developments, but that the values that shape it and the human ends it is supposed to serve are still controlled by humans.¹³

What Is My Contribution?

Reflecting and knowing about one's strength and weaknesses does not by itself lead to meaningful action. According to Drucker, knowledge workers will have to ask themselves what their contribution is *supposed* to be. For Drucker, the answer to this question has to take situational, personal, and result-oriented factors into account. The *logic of contribution* is a recurring thread in Drucker's thought and underlines how he sees an important role for the individual and is at the same time very aware of the individual's embeddedness in a broader system. This is undoubtedly rooted in the foundation of Drucker's work the Christian value system.¹⁴

Answering this question will clearly be much more difficult in the transhuman age. A lot of jobs that were previously done by Druckerian knowledge workers will be completed by machines or a few transhuman beings with superior physical and computing power. In a recent *Foreign Affairs*-article, Brynjolfsson and McAfee provocatively ask: *Will Humans Go the Way of Horses?*¹⁵ Even if (trans)human beings will not be completely replaced by machines, we have to grasp with the fact that more and more tasks in the economy will be automated and performed by machines. It will therefore certainly be much harder to figure out where one should make a contribution.

There is one area where machines will probably never be able to replace (trans)human beings: we are a deeply social species and therefore a lot of economic transactions not only have an interpersonal element as a side effect, but are actually mainly about interaction with other human beings. Think of how we enjoy being greeted as a regular guest in our favorite bar or how an outstanding teacher can motivate his students and turn their curiosity into burning ambition to learn.¹⁶ It is hard to imagine that a drink-mixing-and-bringing-it-to-the-table-robot or an online learning platform, however advanced, can substitute for what interpersonal interaction means for us in these situations. At the same time, it is quite likely that humans in such jobs will be equipped with genetic or other enhancements that enable them superior performance and make them transhumans. Yet, the human element is still crucial as only it can enable interpersonal experiences. We can thus answer the question for the supposed contribution as follows: (trans)human beings will have less opportunities to make a contribution than in the past. Therefore, they should focus on areas, where a contribution can be made by offering any sort of interpersonal experience.

¹³ Kantrow (1980).

¹⁴ Meynhardt, T. (2010). The practical wisdom of Peter Drucker: roots in the Christian tradition. *Journal of Management Development*. 29(7/8): 616-625.

¹⁵ Brynjolfsson, E. & McAfee, A. (2015). Will Humans Go the Way of Horses?. *Foreign Affairs*: <https://www.foreignaffairs.com/articles/2015-06-16/will-humans-go-way-horses>

¹⁶ Brynjolfsson & McAfee (2015).

The Second Half of Your Life

Based on the observation that a knowledge worker's life is longer than the expected lifespan of his or her employing organization and that knowledge workers are still able (and even need to) work after retirement, Drucker derives the needs to make plans for the second half of one's life. He presents different solutions which include embarking on a second and different career, building up a parallel career, and becoming a social entrepreneur. If we believe Ray Kurzweil's prediction that in the near future we will be able to postpone death by many, many years (or even abolish it altogether), this second "half" of our life will actually be the biggest part of our lifetime.

Drucker's ideas about managing the second half of one's life still revolve around the notion that there is some "regular" career after or during which additional interests should be developed which can then carry on into retirement. This vita might not be the norm in a transhuman future. If our time on earth is not limited and if also there is – as described above - less human work needed to keep the economy going, we will have fundamentally different ways of building our biographies. We might, for instance, alternate permanently between work and education and being there for our families. We might take time off in between to return to work a few years later or do very different activities on different days of the week. We will probably not be driven to career success that much in the classical sense as there won't be a need to reach a "peak" before retirement. The classical sequence of education-work-retirement will dissolve and make room for new and unconventional biographies. This will fundamentally change how we manage ourselves and these changes will – as Drucker has predicted – go beyond the individual and his career, but shape the future of society.

CONCLUSION

This essay has discussed the implications of the advent of a transhuman age for Druckerian human-centered management by focusing on self-management. We found that self-management will continue to be important in the transhuman age, but will likely be radically different from the past and present: The potential to make a contribution in the working world will be diminished, whereas the entire notion of having a "strength" will change completely. Assuming that physical and cognitive abilities will be leveled, what sets a particular being apart will be purely down to individual character, values and personality. Biographies will take totally different forms as they will be no longer built around the limitation of having to be successful in the +/- 45 years of one's career. This will first and foremost have implication for individuals who will grapple with the very notion of what differentiates them from others and makes them *individual*. However, the management of organizations will also have to change as they will be composed of transhuman cyborgs with greatly superior capabilities. Further, public policy will have to adjust to these new realities as technology will exacerbate social inequalities, potentially driving a wedge between those that can afford the latest transhuman-like enhancements and those that cannot.

Technological change and innovation will change the way we live and work in a radical way. While this has been the case in economic history several times (think of the steam engine or the automobile), the speed of these changes is unprecedented and requires major and relatively quick changes in social and political institutions. This essay has shown that Peter Drucker's thinking can help us to tackle these challenges. His guiding questions still enable and trigger insightful reflection even if the answers might have (partly) changed. This is very much in line with Kantrow's

observation that engaging with Drucker's work is worthwhile not just for particular ideas but for a certain discipline of mind, a systematic way of thinking through a problem.¹⁷

Last but not least, we should keep in mind that Drucker while underlining the importance of adapting ourselves and our institutions to technological change has always stressed that the human ends that technology is to serve and the values that guide it are still within (conscious) human control.¹⁸ We would be well-advised to keep this in mind when thinking about the promises and perils of transhumanism.

¹⁷ Kantrow (1980).

¹⁸ Kantrow (1980).