THE ROLELESS ROLE OF MAN

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ABSTRACT

In a world increasingly governed by data-analytics and algorithms and with the continued development and sophistication of machine-to-machine technologies and communication, the very significance of human labor and human praxis is today being questioned and tested in radically new ways. Decentered and displaced from his previous position as the main gatherer and interpreter of information, man´s hitherto exclusive role in the monitoring and administration of his environment is emphatically challenged by automation and ubiquitous computation. While these technological developments undoubtedly provide still greater precision and efficiency, they also prompt a series of less instrumental and more existential questions: What happens to human self-perception and self-valorization as machines take over the channels of communication? Where does man situate himself in an environment increasingly beyond his grasp and outside his possibilities of apprehension? On the threshold to tomorrow´s big data-land these are among the questions that arise with still greater pertinence and urgency.

Introduction

　　With the continuing development and sophistication of sensors and mobile chips and ubiquity of wireless networks we are quickly approaching what commentators call *the Internet of Things*. Despite the formidable range of possibilities that the Internet of Things appears to open and despite the seemingly countless areas of imagined future application - from the benefits in agriculture to the effectivization of anything from healthcare equipment to cars and refrigerators - the underlying commonality and unifying trait is the value and principle of data. Or as the American author Samuel Greengard states unambiguously: "At the most basic level the IoT and Industrial Internet are about data and extracting value from it."[1] In order to understand the impact on human existence and human interaction that the Internet of Things will have, it is therefore necessary to take the question of data seriously and to ask what we may all assume to know already: What do *data* truly mean? When does something qualify as precisely *datum*? How do *data* represent or signify and thereby provide us with possible information? What can *data* tell us about nature, about our environment, about ourselves? Since futurists as well as engineers and scientists agree that we are only becoming still more dependent on data and that data indeed will function as the currency of tomorrow, it is of great importance that we do not take data for granted but ask on what we are basing both our future existence as well as our future economy.

The Human Bottleneck

　　Let us begin our inquiry into the nature and logic of data by pointing to the crossroads that characterizes our current situation: Whereas knowledge historically was the product of information and data collected by humans and analyzed, categorized, and computerized by humans, we are increasingly not only superfluous to the process but even a constraint or a bottleneck to the far superior sensibility and accuracy of sensors and M2M technologies that benefit from bypassing humans altogether. As the British technology pioneer Kevin Ashton describes the development:

Today computers - and, therefore, the Internet - are almost wholly dependent on human beings for information. Nearly all… data available on the Internet were first captured and created by human beings - by typing, pressing a record button, taking a digital picture or scanning a bar code. Conventional diagrams of the Internet include servers and routers and so on, but they leave out the most numerous and important routers of all: people. The problem is, people have limited time, attention and accuracy - all of which means they are not very good at capturing data about things in the real world… We need to empower computers with their own means of gathering information, so they can see, hear and smell the world for themselves…[2]

In other words: due to the limited attention span and precision of human capturing - people being far too easily distracted and far too spontaneous and unpredictable - the task of gathering information is indeed too important to be left to human imperfection. Where man fails the computer will prevail: Without the inhibition of human fallacies what the future promises is a world where nothing remains hidden, unnoticed, and unregistered but where every change or alteration, every detail and every fact and feature is surveyed, captured, communicated, and archived. As such the dream of ubiquitous sensing and ubiquitous computing is not only a dream of complete transparency and perfect surveillance but also the realization of an age old human fantasy and phantasm where humans finally will have made nature and objects communicate. As in a fabulous story by Lewis Carroll, the future will be populated by talking cars and coffee machines, tweeting plants, trees, cows, and sheep. Behind the "looking-glass" of ubiquitous computing the silent world of nature and the silent world of things will finally have found a voice to drive the melancholic speechlessness away. A spokesperson from Motorola summarizes the change in the following way: "Something is happening. Things are starting to talk to other things. You will see it all around you. We know, because at Motorola, we´re making it a reality."[3]

However, as objects and nature appear to find a voice, man himself is growing increasingly silent. Not only will his previous role as gatherer and analyzer of information disappear in the foreseeable future - but so will a great many of the jobs that M2M technologies in combination with artificial intelligence render obsolete. An analysis conducted by *Associated Press* in 2013 makes the stakes and development perfectly clear:

> Most of the jobs will never return, and millions more are likely to vanish as well, say experts who study the labor market. What´s more, these jobs aren´t just being lost to China and other developing countries, and they aren´t just factory work. Increasingly, jobs are disappearing in the service sector, home to two-thirds of all workers… They´re being obliterated by technology.[4]

And as the *Associated Press* report concludes: "The developed world may face years of high middle-class unemployment, social discord, divisive politics, falling living standards and dashed hopes."[5] The paradoxes that the report reveals are thus both manifold and mind-boggling: While man´s own environment is becoming still better equipped and still more connected, man himself is increasingly taken out of the loop, expelled from the world of data exchanges, and disconnected in the very midst of ultimate connectedness. What man is engineering is, when regarded from this perspective, nothing but his own obsolescence - what he is fabricating is his very insignificance and his future isolation. The world around man talks, but it will no longer speak to man who will have become the remnant or the vestige of the grand technologized evolution. What the *Associated Press* report points to is, in other words, the fundamental discord between a summing, active world of machine communication and the silenced world of human existence: It is from the depths of the future divide between sound and muteness, between data and absence, information and nothingness that humanity will be asked to define itself; it is in the image of the computer that man will question and judge himself and soon be judged in return.

Data and the Human Environment

Let us try to approach the silence that will increasingly envelop us and address the disconnection that threatens to isolate us. Perhaps the most immediate and palpable expression of the disengagement that awaits us comes from the very way that IoT technologies will change and estrange our relationship with the environment. Today our daily praxis, our multiple routines, and our everyday doings are still wholly governed by reliability. We rely on our surroundings as our surroundings rely on us because a certain knowledge and a particular understanding forms a bond and produces a familiarity that makes us and our environment mutually responsive and reactive. It is the knowledge that lies in our hands for example: Our grasp of things, our touch and apprehension. What distinguishes my house, my home, my neighborhood from any other environment, house, street or city, lies in the very confidence and trust by which my senses, my limbs, my body navigate and interact with the things in my most immediate surroundings. My feet know every crack in the pavement and the exact size and shape of every tile along the road. My hands know every doorknob, every light switch and every handle that are part of the rhythm of my daily going and routinely return. We may say that we truly *rely* on our surroundings in the word´s most original sense: meaning to gather and assemble. Together the multiple and hardly noticeable or noteworthy doings and interactions of my daily existence are assembled and form the threads in a larger fabric which constitute the very stage curtain and backdrop of my understanding of everydayness itself. It is a sense of belonging that cannot be reduced to or contained by any one particular thing - neither this concrete tile nor that precise handle - since belonging indeed describes a relationship in the formation of a private and irreducible world. Thus prior to the imbedding of sophisticated sensors and well before the accomplishment of M2M communication fills the air, the world of my daily existence is already a place of multiple networks and incessant interconnectedness: In my daily praxis the street with its trees, the cracks in the road, the window with its blinds are already assembled and already speaking: Not in the clear voice

of data and information but in the whisper only audible to the one who dwells there. Herein lies the richness, the true fullness of what we call our environment. It is the encirclement and enveloping that constitutes a whole equally shared by all things, equally inscribed in the gestures, the grips, the movements of my hand, my legs, and my feet.

However, this enveloping and encirclement will soon be disrupted. As automation and M2M technologies takes over in our homes, at our workplace, in our streets and cities, my involvement and interactions will be supplanted by data-exchanges between machines that no longer necessitate any monitoring, guidance, handling or understanding of the individual. ABI formulates it in the following way:

> As the controlled Things become smarter, enabled by machine learning and artificial intelligence, it is likely that the need for human input will gradually decrease. The Things that today require such guidance to be aware of what the human user prefers will in the future be immersed into the environment in which they operate. In this sense, it can be argued that the IoH is a stepping stone towards a more immersive level of intelligence.[6]

If the human environment used to describe a relationship based on contact and reliance, founded on the knowledge of our senses and the actions of our bodies, then the reality that awaits us in *big data-land* renders all of this obsolete. Smart machines will push the human engagement aside since every need, desire, or change is better and more efficiently met and administered by things and objects on their own. But as precision increases and efficiency reaches new and previously unimaginable heights, the human surroundings are still more emptied of significance. What importance do I have, what role do I play, when my knowledge and my perceptions are no longer valid and seem to always arrive too late? When everything from the car to the shower, toaster, and refrigerator operates independently and even better without my interference? Something is lost that goes well beyond any simple question

of pride, craftsmanship or ingenuity. The divorce is of a profounder and more ontological order: It is my very irrelevance as a human being that the new technologies manifest and expose. Vis-à-vis the magnitude, the precision, and the ubiquity of data, any human skill and ability is a priori deemed insufficient. Human hands are too clumsy, human vision is too faint, human memory is too flawed, human minds are too feeble. In an environment fully dependent on data-exchanges, man can only excuse himself and retreat. The environment will no longer ask anything of him - except the data and information that he too emits through his monitored body and calculated movements.

Monitoring vs. Natality

The world of ubiquitous computing could therefore easily prove to be a wasteland for human thought. The data-land of tomorrow describes a world that is always already given - always already rearranging, organizing, and monitoring itself. The need for human questioning, doubting, examining, creating, intervening is easily eclipsed and almost automatically pre-closed given that there appears to be nothing that is not already surveyed, registered, and admonished. Where nothing seems to escape or bypass the hyper-sensitive and all-capturing sensors of tomorrow, there will be nothing for the human eye or mind to unearth, examine and discover. Increasingly full of data the world is simultaneously emptied of importance. Space and time are less the vast and promising dimensions continuously rich on events, creations, and possibilities as they become the narrowed horizons of a preordered and predisposed reality. To the extent that ongoing attempts of ameliorating and enhancing predictive analytics prove successful, not even the future will remain untouched by the undressing eyes and unconcealing calculations of technology. While this may allow a bank to anticipate the behavior of its clients or a car vendor to identify a potential customer in advance, it is also a technology that risks stripping time itself from the promise of the unexpected, the irregular, and the advent of absolute otherness. A certain fatalism seems inevitable: When even the unexpected is expected and the unpredictable

resides inside an algorithm, the very potentiality of existence appear hollow and abstract. Let us not forget the very redeeming energy and powers that the German philosopher Hannah Arendt attached to the term natality: Without the opportunity, the disruption, the surprise that the birth of an idea, a dream, or a vision bring, man remains inside the prison of recurrence and repetition. Freedom and hope are the twin offspring of the occurrence of the unexpected. While the etymology of the word *data* in fact derives from the Latin verb "to give", the very gift of data is not natality but control: A monitoring that will soon bypass our human capabilities so emphatically that we can never be the steersmen but only the humble servants of tomorrows data streaming. The role of man is already changing and undergoing multiple transformations. But before our image and features are wholly besieged by the buffeting of bits, we may evoke a picture of man that is more of a promise than a prescription.

ENDNOTES

[1] Greengard, Samuel: *The Internet of Things*, 54
[2] Greengard, Samuel: *The Internet of Things*, 20
[3] Kellmereit, Daniel and Daniel Obodovski: *The Silent Intelligence*, 15
[4] Greengard, Samuel: *The Internet of Things*, 150-151
[5] Greengard, Samuel: *The Internet of Things*,152
[6] Greengard, Samuel: *The Internet of Things*,p.18

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