Review of "On the Incorporation of Technological Tools" thesis by Ivan Gutierrez, M.A.

In order to have a meaningful discussion, I will summarize my concerns through several questions that are connected:

1) How is the reader addressed in this thesis?

Does this thesis use Heidegger's notions as tools among other tools to engage with philosophy and to question technology or it confirms and even extends Heidegger's proclamations that only certain concepts can serve as conditions of possibility of doing philosophy and thinking technology? In both cases, I miss a clear and convincing explanation that would position the reader and offer a space for dialogue. Am I addressed as a reader at all? Am I addressed as a user of technologies or a "Being"?

We are past 1970s Patočka's seminars where you did not have to give any account of why is Heidegger a preferred choice for reflection of anything. After the publishing of the Black Notebooks in 2014 and the criticism by Emmanuel Faye, Dieter Thoma and others, I would expect at least an elementary attempt to explain why is Heidegger still relevant (especially his problematic use of the phenomenological concept of the "Lifeworld" as something distorted by nomads and technology and its uncanny connections to the "blood and soil" sentiments). Despite the references to various scholars from philosophy, paleoanthropology, media theory, etc. it remains unclear why we have to go through the pain of reading all these authors if we will always end up in Heidegger's Dasein, Lifeworld, readiness-to-hand and other teleological constructions of goal directed intentionality that is saving anthropocentrism rather than any phenomena.

2) What actually explains what in this thesis? To what body of knowledge is this thesis trying to contribute to? What is the semantic map of the concepts related to the incorporation of technological tools and formation of a complex, technological, but always human "Lifeworld"?

The author combines a more established Heideggerian vocabulary of "Being" and "structure of experiences" with references to issues of autonomy (chapter 9), agency (chapter 7), even phenomenological "vectors" (chapter 10). The ultimate thesis seems to be that we can have a networked/VR Dasein and "Being-in-the-networks" (chapter 6) with intentionality and forms of practical engagement, where the danger of some form alienation always lurks (privacy in chapter 9) just like in the "real world".

The inflation of concepts from Heidegger to Searl and everything in between is then not just a random register of reading experiences, but a test or translation of Heidegger's existential analytic, Merleau-Ponty's embodiment and Searl's intentionality etc. for audiences indulging in computer games, apps and mediated communication of all kinds. Is that the main goal of this work? Various parts of this thesis make various impressions

and it is hard to decide, which is actually the central, or decipher the structure. Is this a form of a tribute to Heidegger, Merleau-Ponty, Ihde etc.? Is it a work written for fellow (post)phenomological colleagues that enumerates different vocabularies and disciplinary "horizons" that always lead to the original phenomenological notions of a Lifeworld and Being open to the world that has to incorporate technologies etc.? Does this work contribute in some ways to our understanding and reading of Heidegger's notion of being in the world? Is it trying to critically engage with notions of privacy, VR technologies and related issues from a new perspectives? Is it trying to propose a framework for designers and users of recent technologies or for policy makers to understand, improve and regulate various technologies? What does this combination of Heidegger and Searl etc. actually bring to our understanding of mediated and networked lives that was not possible without them? The convoluted vocabulary of intentionality, agency and Dasein produces often redundant if not comical descriptions, such as this one explaining the possibility of free will in a world: *"The world causes us to experience it and we cause things to happen in it. And underlying perception and action, the principal ways we deal with the world, is intentional causation. If you ask me where your laptop is and, after scanning the room for a moment, I point to the Macbook sitting on the table over there, I have caused my finger to point at it." (p. 95)* Rather than using such trivial examples of our embedness with Macbooks and PCs, the author could have chosen more challenging examples of so called "Artificial moral agents" in cars etc. that make decision and bring the issue of deviant causality to the forefront with very practical, design concerns.

3) The thesis describes a world that it is complex with emergent properties (chapter 3.3), but does this really fit the phenomenological obsession with pre-given, pre-reflected meaning and embodiment structures and how? What is the relation (differences, similarities) between incorporation (of tools, technologies) and embodied, non-conceptual experiences, embedded concerns?
My struggle with this thesis is probably ontological and goes back to that original question about the status of Heideggerian concepts in this thesis. I struggle with the attitude that it is enough to "invoke" and hint some **pre-understanding about what constitutes philosophy, but also technology**, on which it is easy to agree upon. In the case of technology, **this pre-understanding means that all of our tools evolutionary evolved to extend the function of our language and that the only way philosopher can engage with them is by reflecting their use (chapter 3. and 8.).** Maybe because of my experience as a designer, I am surprised that **all present communication tools and media are reduced solely to their use.** There is nothing in this thesis about the experience of designing and building "communication tools" or other technologies. How does the "structure of experience" of any technological tool change once you become literate as a programmer or designer? Would you still find the

world of Linux distribution uncanny or gain freedom unimaginable before? Is there really one lifeworld of technologies we are embedded into or many? Would this passage even make sense: *"If I find myself on the desktop of an entirely unfamiliary operating system – say, a distribution of Linux with a small user base – it will be characterized by a degree of uncanniness. Of course wandering the windows and menus of the strange operating system will not quite be like roaming a completely alien world, as today's graphic user interfaces were first developed to counter the steep learning curve of command-line interfaces (such as MS-DOS) and are designed to be as intuitive as possible. But if it is my own computer, which I have been using day in, day out for years and the latest iteration of an operating system I have grown into (or has grown into me) for twenty years, there will be a whole system of abilities I have learned that have sedimented into my extended phenomenological body's "I can" and a complex network of nested concerns and interrelated people weaving in and out of the computer clearing to make up the whole of the world comprised by the ontological structure of care."* (p.120)

Furthermore, there is an assumption that **all present technologies are about communication, and their materiality is somehow transparent to the historical and evolutionary "goal" that ends up being the network theory "power law" (chapter 3.8.3).** This part feels almost as if Giambattista Vico could read and mix Heidegger, Kittler and Barabasi in some parallel universe. This **supremacy of communication and language over materiality** is never properly reflected, but forms the base of all discussion about incorporated technology in the Lifeworld and Dasein. There is nothing about the experience and action of building any tools, struggling with their materiality and "agency" that resists and forms our intentions, designing them and facing ambiguities of their use and surprising appropriations. The whole discussion of extensions, mediated, embodied, incorporated technology in a complex and emergent world insist on some human uniqueness that is the only proper point from which we can reflect and understand technology as an evolutionary and historical necessity of the "power law". How does the power law actually relate to the supposed openness of Being and Lifeworld?

4) What is an "empirically responsive" philosophy and reasoning (p.28, chapter 3.1.1) and how they relate to the (post)phenomological notions (Being-in-the-World, Lifeworld or I-technology-world structure)?

The paleo-anthropological accounts together with concepts from history of technology (which is only mentioned on p. 19) and neurology seem to run in parallel to the main (post)phenomological reflection rather than support its arguments. Do the evolutionary accounts of human adaptation to the environment (often random and unintentional) actually confirm the embodied phenomenological Lifeworld? The author just states that empirically responsive philosophy is about human uniqueness and points out to

Aristoteles' praise of good and rational life based on this (which is a rather problematic notion considering the hierarchical rather than plural categories employed in Aristotle): *"We will perhaps not arrive at the same conclusions as Aristotle, but our thinking on the incorporation of technological tools is also guided by a conception of what makes us human. And arriving at such a conception involves thinking, in an empirically responsive way, about what makes humans – the species that came up with tools such as mobile phones, among other extraordinary achievements – different from other animals on earth. Thus, an exploration into the experiential structures of the human Lifeworld will lead us to what palaeoanthropology and thinkers who have concerned themselves with the field from a philosophical perspective have to say on of the uniqueness of homo sapiens. This in turn should give us a sense of the uniqueness of the world of human technology."*(p.19)

The empirically responsive and phenomenological philosophy in this account are actually studies of human uniqueness and the uniqueness of the world of human technology and even "primordial uniqueness" (p.19-20). According to this thesis all media and technologies are just the latest cognitive and perceptual tools exploring our primordial uniqueness - ability to be and question the world at the same time (discussed as communication, cooperation, developmental plasticity): *"To summarize, several aspects, which cannot be teased apart and organized into a clear-cut causal chain, of our uniqueness as humans reveal themselves to be significant if we want to understand the world in which we are embedded as technological tool users: the developmental plasticity we evolved to deal with variable habitats is the background for the integration of tools (whether physical, perceptual or cognitive) deep into our neurological resources. The uniquely human social cooperation boosted by efficient, highfidelity, communication, when combined with Tomasello's ratchet, ensured that innovations would be preserved, along with any improvements to them, making possible the accelerated paleoanthropological change that began around 50,000 years ago."* (p.20)

How is this insistence on human uniqueness (and the description of this thesis as an "investigation into the uniqueness of the human technological world" on p.27) actually different from any solipsistic yearning or anthropocentric promises that this world was created by God for men? Is the author even aware that such claim is problematic at a time of empirically visible environmental destruction and loss of biodiversity etc. caused by humans, not to mention the more sophisticated posthumanist critiques of such limited view of agency?

Despite my minor reservations and critical comments, I recommend the submitted dissertation with the tentative grade of *pass* .

Dr. Denisa Kera, Prague 27.5.2018