A Phenomenological Understanding of Digital Processes of Subjectification: The Example of Lifelogging

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By lifelogging, we understand a specific, very recent phenomenon of digital technology, which falls within the range of practices of the quantified self. It is a complex form of self-management through self-monitoring and self-tracking practices, which combines the use of wearable computers for measuring psycho-physical performances through specific apps for the processing, selecting and describing of the data collected, possibly in combination with video recordings. Given that lifelogging is becoming increasingly widespread in technologically advanced societies and that practices related to it are becoming part of most people's everyday lives, it is more important than ever to gain an understanding of the phenomenon. In this paper, I am interested in particular in exploring the issue of the transformations in the perception, comprehension, and construction of self, and hence in subjectification practices, deriving from the new digital technologies, and especially lifelogging.

Keywords: phenomenology, lifelogging, quantified self, digitization, philosophy of technology, big data

1. Introduction

In 2011, the third episode of the first series of Black Mirror—a British television series created by Charlie Brooker—was first broadcast on Channel 4. The episode, entitled "The Entire History of You," describes an augmented reality in which most people have a microchip implanted behind their ear that records every action in their everyday life. This is basically a form of augmented memory that allows memories to be played back either in front of the person's eyes or on a hologramatic screen: The episode explores the pitfalls of future technology through the neurotic breakdown of the protagonist, Liam, who starts to suspect his wife of having a secret affair with an old friend of hers. He begins to obsess over his memories, searching through them for evidence of an affair—until he finds it.

The members of this alternative, augmented reality can be considered lifeloggers: The most common definition of lifelogging describes it as "a form of pervasive computing which utilizes softwares and sensors to generate a permanent, private, and unified multimedia record of the totality of an individual's life experience and makes it available in a secure and pervasive manner" (NTCIR-13 Lifelog Task). Thus, by lifelogging, we understand a specific, very recent phenomenon of digital technology (a "technology in its infancy," Gurrin-Smeaton-Doherty 2014), which falls within the range of practices of the quantified self. It is a complex form of self-management through self-monitoring and self-tracking practices, which combines the use of wearable computers for measuring psycho-physical performances (heartbeat, caloric consumption, distance

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covered, emotional states etc.) through specific apps for the processing, selecting and describing of the data collected, possibly in combination with video recordings (including live streaming).

Given that lifelogging is becoming increasingly widespread in technologically advanced societies and that practices related to it are becoming part of most people's everyday lives, it is more important than ever to gain an understanding of the phenomenon. In this paper, I am interested in particular in exploring the issue of the transformations in the perception, comprehension, and construction of self, and hence in subjectification practices, deriving from the new digital technologies, and especially lifelogging. In order to analyse this problem, I will divide my paper into three sections: (1) in the first section, I will briefly explain how the phenomenon in question fits within the broader framework of the Quantified Self movement and of the debate on the so-called "digital self;" (2) in the second section, I will show how it is possible to develop a phenomenological description of the phenomenon, in particular based on a phenomenological distinction and understanding of the dichotomy between reality and virtuality; (3) in the third section, I will consider some of the problems raised by the suggested descriptions, highlighting the paradoxical character of the process of subjectification in the case of lifelogging.

2. The Quantified Self and Lifelogging

Although the first attempts at lifelogging were carried out in the 1980s,[1] it is only from the 2000s that the phenomenon started spreading systematically. It first earned some recognition in 2005, when the website trendwatching.com introduced the expression "life caching" to describe the sharing of information on the private lives of individuals gathered through various digital media and shared on social networks (http://trendwatching.com/tprends/LIFE_CACHING.htm).

In 2009, a lifelogging manifesto was drafted by Gordon Bell, in collaboration with Jim Gemmell. As a computer engineer at Microsoft Research, Bell started researching telepresence techniques and their potential developments in 1991. Gemmell joined the project in 1995 and in 1998 the two of them embarked on a new research project, to solve the difficulties that Bell had encountered in his attempt to digitalise and store all his writings. Bell soon realised the potential of a form of digitalisation not limited to papers, books, essays, and odd pieces of writing, but encompassing *any content* related to his life: "imagine a complete digital record of your life, a complete e-memory of your time on earth" (Bell 2010, 6). The idea of *Total Recall* was born (this being the title of the manifesto published in 2009[2]), which is to say the idea of digitally recording any content whatsoever related to an individual's life, based on the principle "record everything, keep everything" (Bell 2010, 28). This includes books written and read, receipts, phone calls, text messages, appointments, and meetings (to be recorded via wearable cameras), emails, and even biometric and psycho-physical data. Clearly, a task of this sort required the development of software capable of storing, cataloguing, and reproducing the huge amount of data recorded. Bell and Gemmell thus launched the experiment "My Life Bits" for Microsoft Research, an experiment that is still ongoing and which consists in the creation of a system (essentially a digital database) inspired by the visionary ideas of Vannevar Bush, who in his 1945 article *As We May Think* envisaged a machine—Memex, a sort of mechanical desk—capable of recording and storing all contents pertaining to an individual (images, books, articles, and so on).

Bell and Gemmell's manifesto marked a theoretical turning point as the first attempt to systematically approach the concept of lifelogging, here understood as a system of personal e-memory to be made increasingly automatic, passive, and all-encompassing. Since 2009, through the advancements made in digitalisation and the

spread of smartphones and tablets, the vision expressed in *Total Recall* has gained increasing popularity, leading to the creation of countless apps and software programs "for nearly every aspect of life from sleeping to meeting friends, from sex to nutrition, from trust to jogging. What unites them, and also links them to older technologies of self-quantification, is the quest for rational insights into one's own life through the collection of quantified data" (Schaupp 2016, 252).[3] What we have is precisely "Total Recall"—just as in the *Black Mirror* episode. But what is its purpose? Why should we wish to create a sort of "*virtual*" duplicate of our "*real*" life? "Soon you will be able to record your entire life digitally—Bell writes—it's possible, affordable, and beneficial." It is possible and affordable for reasons that Jack Schofield has outlined:

> First, new devices such as camera phones and digital recorders have made it much easier to record your life. Second, the use of digital media has allowed all the different types of record to be combined instead of stored separately. Third, the cost of disk storage has fallen to the point where many PC users can afford the terabyte or two of storage needed to keep everything. Finally, the internet has made it easy to share the results. (Schofield 2004)[4]

But what makes a task of this sort also "beneficial?" Bell and Gemmell give a functional and practical answer to this question: "I hate to lose my memories. I want Total Recall" (Bell 2010, 24). In other words, TR would constitute a digital and virtual complement to biological and material memory: "biological memory is subjective, patchy, emotion-tinged, ego-filtered, impressionistic, and mutable. Digital memory is objective, dispassionate, prosaic, and unforgivingly accurate" (Bell 2010, 55). The idea, then, is that data are more reliable than human memories, insofar as they are objective: In this respect, lifelogging falls within the broad field of the QS movement and the so-called "dataist" paradigm. The purpose of e-memory is to make up for the natural deficiencies and incompleteness of biological memory: The digital storing of all contents and events pertaining to our existence will allow us in the future—even a far-off future—to recall useful information of the most diverse sort, which might help us in a range of situations. As stated in the subtitle of the manifesto, this is bound to increase and improve our productiveness. Ultimately, then, the purpose of lifelogging is self-improvement, which is to say the improvement of one's performances and hence productiveness, based on the two following assumptions:[5]

(1) the quantitative translation of every individual experience (into data);[6]

(2) the overstepping of a natural human limit—the impossibility of remembering everything—and the virtual integration of biological memory.

Bell, like all lifelogging theorists, knew well that a vision of this sort would lead to a deep anthropological transformation: "[Lifelogging] will change, I believe, what it means to be human" (Bell 2010, 4). Indeed, lifelogging consists precisely in "ubiquitous computing:" "a form of pervasive computing which utilises software and sensors to generate a permanent, private and unified multimedia record of the totality of an individual's life experience and makes it available in a secure and pervasive manner" (NTCIR-13 Lifelog Task <http://ntcir-lifelog.computing.dcu.ie>). Individuals who are actively and consciously involved in lifelogging are coming together in communities and groups that are still relatively small (albeit steadily growing: In 2014, there were around 90 groups active in 20 different countries, for a total of 7,500 members [Selke 2014, 89-90]). However, the socially significant fact is that more and more people in technologically advanced societies (essentially, anyone with a smartphone) are—more or less consciously—involved in many lifelogging activities in their everyday life. For example, many individuals record their physical performance when exercising at the gym or in the open (e.g., calories burned, steps taken in a day, heartbeat, etc.); many people record the duration

and quality of their sleep; others use apps to check and improve their mood; other still use software programs to monitor their personal health. More and more often, different apps are used together and in an integrated way.

The question we need to address, then, is this: How is this sum of phenomena influencing our perception, understanding, and production of ourselves as subjects? How is it anthropotechnically changing the human being by virtue of the digitalisation (which is to say, the virtual translation) of increasingly significant aspects of one's real life and experience?

3. The Phenomenology of Virtual Experience

At first sight, it would seem as though lifelogging practices elude phenomenological understanding: The ambition to translate a whole range of (physical, psychological and emotional) real-life experiences into data, which is to say into quantitative values, with the transition this implies from a first-person (subjective) experience to a rigorously third-person (objective and protocol-based) perspective, would seem to run against the phenomenological principle of the return to lived, intuitive and qualitative experience—a kind of experience that is inevitably vague and inexact and hence always individual and personal. Conversely, the attempt to apply phenomenological categories to the complex phenomenon of lifelogging would appear to confirm the objectifying tendency of such practices, which elude the signifying dimension of one's *Lebenswelt*. However, a phenomenological approach to the topic is justified, in my view, by at least three assumptions:

(a) there exists a notion of phenomenological "virtuality" that, from a critical perspective, may be understood as the field in which lifelogging practices take place;

(b) phenomenological critique shows that the translating of lived experiences into the third person, which is to say into purely statistic and objective protocols, cannot be *complete* since it is bound to leave out some significant contents that lie beyond the QS perspective;

(c) in the process of mediation ensured by digital media, the relation between the (subjective) I and the (objective) Self is further complicated by computer processing (according to the "input-processing-output" pattern). This focuses each individual activity on a radically impersonal (automatic, computerised) moment that, along with the objective translation of the experience, conveys a new form of alienation. This alienation may be made the object of a phenomenological understanding and critique.

A phenomenology of the virtual is possible, in my view, based on three assumptions:

(a) Deleuze's distinction between possible and virtual, and hence the criticism of the conception of the virtual as that which is merely *opposed* to what is real;

(b) the application of the notion of eidetic variation and of the virtuality of the process of perception according to their phenomenological (and especially Husserlian) meaning;

(c) the application of the notion of "flesh" developed by Merleau-Ponty, which transcends the notion of body (with its limits and material quality) in a connective and virtual sense.

(1) Let us consider Deleuze's thesis in *Difference and Repetition*:

> We opposed the virtual and the real: although it could not have been more precise before now, this terminology must be corrected. The virtual is opposed not to the real but to the actual. The virtual is fully real in so far as it is virtual. Exactly what Proust said of states of resonance must be said of the virtual: "Real without being actual, ideal without being abstract;" and symbolic without being fictional… The reality of the virtual consists of the differential elements along with singular points which correspond to them. The reality of the virtual is structure… far from being undetermined, the virtual is completely determined. (Deleuze 1994; 1968, 208-9)

Deleuze's intuition has proven all the more true today, as not only the concept of "*virtualreality*" has become well-established but also—with a further distinction—that of "*augmented reality*." In the contemporary discourse on computer technology, the level of AR achieves a genuine integration between the virtual and the real, which is not typically the case with VR (where the assumption is the creation of an isolated virtual environment). Virtual reality is all about the creation of a virtual world that users can interact with. This virtual world should be designed in such a way that users would find it difficult to tell the difference between what is real and what is not. Augmented reality is the blending of virtual reality and real life, as developers can create images within applications that blend in with contents in the real world. In other words, neither VR nor AR is *opposed* to the real; but whereas the former is a (digital) simulation of the real, the latter is a (digital) integration of the real that allows interaction with it.[7]

Not only is the virtual not opposed to the real, but neither should it be understood as an immateriality opposed to the materiality of the real (Kozel 2007, 78). Indeed, from a phenomenological perspective, Deleuze's assumption is confirmed on at least two phenomenological levels: that of eidetic variation and that of the process of perception.

(2) In *Ideas*, Husserl describes eidetic variation as that method by which the phenomenologist can grasp the invariant structures of phenomenal reality. Variation is based on the fictional character of the imagination, "the vital element of phenomenology as of all eidetic sciences" (Husserl 2012, 148). The potentially unlimited power of variation is de facto bound to the world, which is already given: As Bernard Waldenfels has noted, "eidetic variation must set out from the real world; as a starting point, this is unsurpassable and hence more than a mere example... As Husserl himself ultimately realized, variation is not a game suspended in mid-air, but *gebundene Variation*" (Waldenfels 1971, 277-8). In this sense, we may conceive eidetic variation as a simulation (VR) that creates a virtual world which is not opposed to reality—for the latter actually stands as its foundation—but which has an ideal content: The virtuality of eidetic variation would therefore be opposed to the actuality of the world (as Deleuze suggested) and not to its reality. According to this perspective, we may understand lifelogging as a virtual transposition of the contents of real experience, and hence as the creation of an eidetically varied ideal world. However, it is important to note that in the case of lifeloggers what counts is not the activity *as such* (the experience as it was actually lived or its virtual completion, mediated by devices of various sorts), but rather its *quantification*. Whereas a virtual experience is still *the experience of a world* (take the case of videogamers or the users of AR softwares such as Google Glass etc.), what matters in lifelogging is not the experience itself but its translation into measurable data—not "what you experience" and how you experience it but "how much you have experienced."

Lifelogging practices considerably limit the very virtuality of the process of perception, for which a virtual opening onto the future through the phenomenon of protentional expectation is essential (in the Husserlian sense). The key moment becomes that of the reading and interpretation "ex post" (*nachträglich*) of the data gathered by the device/software/app used, which occurs after the completion of the monitored activity. What matters, therefore, is that the experience be completed and translated into measurable data, allowing it to be analysed "ex post"—not the disclosure of a further horizon of meaning and of virtually available possibilities. The individual, as *Leib*, does not point beyond himself, as is the case with Husserl and, even more radically, with Merleau-Ponty; on the contrary, the individual is brought back to the dimension of a pure *Körper*.

(3) The peculiarity of lifelogging practices lies in the fact that they treat the human body and all its psycho-physical performances as a machine that may be perfected through the collection and analysis of data.

As many scholars have noted, self-tracking practices implicitly entail an aspiration towards emancipation and liberation from one's psycho-physical limits, as much as from any dependence from external normative institutions. Self-tracking and self-monitoring are ideally suited to a process of improvement established and self-governed by the individual (Schaupp 2016, 258). Quantification is key to this aspiration: As is clear from Bell and Gemmell's manifesto, only by abolishing the intuitive, vague, and subjective trait of individual experience, and by replacing it with an objective, exact, and measurable translation of the same experience, it is possible to achieve a genuine "self-knowledge" that is independent of any external institution and capable of promoting a tangible (i.e., measurable) improvement of oneself. In phenomenological terms, this translation of subjective experience into an objective one is based on a dissociation between *Leib* and *Körper*, and hence on a reduction of the former to the latter.

According to Merlau-Ponty, the human body is both immanent and transcendent: "'Immanence' refers to the material, corporeal flesh, and bone aspect of the human body. It is through the immanent body that we experience sensation and are physically present in the world. 'Transcendence' refers to those aspects of us that are not material: our intellectual, imaginative, and cognitive processes" (Ladkin 2012[8]). The constant osmosis between immanence and transcendence means that "it is impossible for humans to assume the 'God perspective' in which they objectively observe the world in such a way that they are not affected by the world observing them back. Human beings cannot perceive without simultaneously being perceived" (ibid.). This chiasmus or reversibility of the process of perception—what Merlau-Ponty (1968) calls *Flesh*, the connective structure that conveys the possibility of every aesthetic experience (and which is invisible in itself)—is ruled out by lifelogging practices: According to the motto of the QS movement, experience is translated into "knowledge through numbers," which is to say into an algorithmic protocol.

4. Lifelogging and Subjectification: A Phenomenological Critique

The outline provided in the previous section ought to have shown that a *complete* translation of a first-person perspective—focused on oneself and on the world one experiences—into a third-person perspective is impossible for the subject, understood in phenomenological terms. In other words, lifeloggers' translation of subjective experience into measurable data no longer speaks of the living subject behind those experiences, but rather of an anonymous and alienated *Körper*. How does this alienation occur?

In lifelogging practices, the living body, or living subject, is equipped with a digital device (e.g., a smartphone, a wearable device such as a camera, a tablet, and so on), which through an application especially designed for tracking a given activity (e.g., the number of calories burned during training) isolates and gathers the data concerning a physical performance of the living subject—data purely related to his/her *Körper*. The data thus collected are then processed and translated into an algorithmic code in an automatic, environmental, passive, and possibly all-encompassing way.

In the transition through a digital medium (often described as a "Black Box" with a pre-programmed code that is independent of the user, who neither knows it nor understands its inner workings), a range of data is produced that are processed and ordered by the device. These data reduce the original subjective experience in a dataistic, which is to say algorithmic, sense: The outcome, for the user, is the visualisation of numbers, diagrams, charts, etc., translating his/her original experience. With the help of the digital medium, the originally embodied self indirectly produces—through the Black Box—a disembodied, objective and algorithmic self.

The objectified "I" resulting from the transition through the BB is not directly produced by the embodied subject: It is the digital medium which automatically brings about the translation. Therefore, two interpretations are carried out: (1) the first interpretation is made by the pre-programmed digital medium, which processes the raw data collected at the level of the embodied experience, translates them into algorithmic codes, and reproduces them as graphic displays of various sort (reduction of the *Leib* to the *Körper*); (2) the second interpretation is made "ex-post" by the subject who, as *Leib*, reactivates himself/herself at the end of the process and interprets his/her own digital objectification in view of self-optimisation.

This double objectification and double interpretation is typical of digital media and complicates the subjectification process in several respects.

(1) The dualism between *Leib* and *Körper*: Every media technology implies a doubling, which here is further complicated, however, by the anonymous automatism of the device. The subject becomes alienated through the device, without which no algorithmic and objective translation of the original experience would be possible. The subject does not have (nor needs to have) any awareness of this first objectification/interpretation automatically produced by the device: The process occurs entirely within the BB. The subject only activates the device and visualises and interprets ex-post data which have been pre-processed for him/her according to the programmers' pre-established criteria. This mode of functioning corresponds to the input-processing-output pattern used in software engineering, a pattern which introduces—within the subjective activity—a radically impersonal moment precisely in relation to the processing that is automatically carried out by the device.

(2) The problem of computerised *design* and its influence on the subjectification process (Dietrich-van Laerhoven 2016): Someone, another individual (a computer engineer or a team of computer engineers) has programmed the digital medium. The person using the medium must use it correctly (i.e., according to the purpose, it was designed for, as is the case with all media); hence, he/she must conform to the figure of the imaginary user who is posited by the designers at the programming stage. In the case of digital media, the influence of the designer is far more invasive and problematic: The user's ex-post interpretation of the data collected crucially depends on the way in which such data are arranged and retrieved (i.e., visualised)—which is to say, on what meaningful criteria are adopted. The way in which *others* program the device, then, crucially affects the user's interpretation of data pertaining to his/her activity, and hence his/her self-perception and self-understanding. Obviously, this makes lifeloggers' aspiration to emancipation and the personal management of their performances far more problematic. Whereas lifeloggers see their activity as a technique for self-improvement and for the attainment of more objective, and hence more authentic, self-knowledge, in actual fact this activity meets a meta-goal that essentially amounts to the widespread profiling of individuals, in keeping with marketing logic.

(3) Although lifelogging is practised privately—its possible sharing on social networks being only a secondary development—and for the sake of self-improvement, the value of each experience as an *event* or as a unique, personal, unrepeatable, and non-objectifiable *life experience* is largely lost. Data analysis can never tell me what "it feels like to be me," what it feels like (i.e., "what it is like") to perform a certain activity and have a certain experience. What is relevant is not the event but the protocol, because it alone is objective. Ultimately, individual experience undergoes a peculiar process of idealisation, which no longer responds to the logic of eidetic variation: Living experience is translated into average, maximum, and minimum values, into trends, recursiveness, etc. All this re-establishes the dualism between a subjective "I" and an objective "I" which phenomenology had sought to overcome (with Husserl's notion of Leib as much as Merleau-Ponty's one of *Flesh*).

5. Conclusions

The phenomenological understanding and critique of lifelogging and of its effects on the subjectification process ought to have shown the intrinsically paradoxical quality of this process, which may be summed up in the following problematic aspects:

(1) restoration of the dissociation between *Leib* and *Körper* through the reduction of the former to the latter, and hence of a dualistic notion of subject;

(2) alienated construction of the self, caused by the use of algorithmic and automatic protocols and procedures, carried out in a pre-determined way by the software/hardware in use, which far from increasing individual self-awareness and hence freedom—as lifeloggers maintain—actually reduces them;

(3) loss of the genuinely personal, qualitative, and subjective content of the original experiences, and hence of their meaning as experiences (events or life experiences).

In highlighting the problematic nature of lifelogging, I do not wish to espouse a gloomy view of a complex phenomenon that is shaping the technologically advanced societies of today in an increasingly pervasive and irreversible way. Rather, I have sought to outline some possible guidelines for a "phenomenological" management of the phenomenon, to be further developed in future studies, in the hope that it may contribute to fostering an awareness of certain practices among lifeloggers and hence help limit their more alienating effects in terms of self-understanding and the construction of self.

Notes

1. Here, I can only briefly mention the history of lifelogging and of its technologies, starting from the first experiments carried out by Steve Mann in the early 1980s with his Wearable Wireless Webcam, followed by the attempts made by Jennifer Ringley, Lisa Batey, and others to create integrated platforms for lifelogging (combining live streaming with social networking) in the 1990s, the research developed for Microsoft by Gordon Bell and Jim Gemmel and their "MyLifeBits" experiment, and finally the creation of specific apps conceived for smartphones and other digital devices in recent years (such as Ubiq Log, Moodlytics, and Experience Explorer, among others).

2. The manifesto was republished by Bell and Gemmell in 2010 as *Your Life, Uploaded: The Digital Way to Better Memory, Health and Productivity* (A Plume Book, New York, 2010).

3. As Stefan Selke has noted, the main lifelogging technologies fall into five macro-categories: (1) health and biometrics; (2) human tracking (mostly via GPS technologies); (3) e-memory (at the core of Bell's project); (4) digital immortality (mostly via social networks); (5) security (surveillance/sousveillance technologies) (Selke 2014).

4. <https://www.theguardian.com/technology/2004/aug/19/onlinesupplement.blogging>, last accessed 22.06.2017.

5. "The theme of optimization has become an important element of the QS movement via maintaining an optimistic and solution oriented quality to the discourse on personal analytics" (Ruckenstein 2014, 70). "Within this concept—Stefan Meißner remarks—the protagonists of the Quantified Self are regarded as being the manifestation of a society striving for consistent enhancement, thus forcing individuals into optimizing themselves and their lives" (Meißner 2016, 237).

6. "Quantification is the central feature of self-tracking… Such an optimization of resource allocation becomes possible in a rational way only if the enterprise has quantitative accounting data at its disposal. All the data that is produced by the technologies described above is quantitative" (Schaupp 2016, 256-7).

7. With AR, users are able to interact with virtual contents in the real world, and are able to distinguish between the two. Both virtual reality and augmented reality are similar in the goal of immersing the user, though the two systems do so in different ways. With AR, users continue to be in touch with the real world while interacting with virtual objects around them. With VR, the user is isolated from the real world while being immersed in a world that is completely fabricated.

8. <http://integralleadershipreview.com/6280-perception-reversibility-flesh-merleau-pontys-phenomenology-and-leadership-as-embodied-practice/>, last accessed 22.06.2017.

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