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To cite this article: Nikolaus Lehner (2019) The work of the digital undead: digital capitalism and the suspension of communicative death, Continuum, 33:4, 475-488, DOI: [10.1080/10304312.2019.1627289](https://doi.org/10.1080/10304312.2019.1627289)

To link to this article: <https://doi.org/10.1080/10304312.2019.1627289>



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Published online: 16 Jun 2019.



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The work of the digital undead: digital capitalism and the suspension of communicative death

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ABSTRACT

During the past years, online services like *LivesOn*, *Eterni.me* and *DeadSocial* received some media coverage. They seem to establish ways to suspend death by digital means as they perpetuate some communicative aspects of the deceased individual. This article shows how a new logic of negotiation between life and death is not restricted to such specialized services like *LivesOn*, *Eterni.me* and *DeadSocial*. On the contrary, the computational processes that are embedded in massively used communication platforms enforce a phenomenon that I suggest to coin with the term *algorithmic undeath*: Web algorithms for recommendation and personalization in general establish a *post mortem* prolongation of individual communication. The article unfolds this argument, suggests a categorization of dimensions of death and closes with some remarks about the cultural and social significance of *algorithmic undeath*. The algorithmic perpetuation of some aspects of individual communications poses serious questions in relation to our concept of death, work, expropriation and value creation, personal identity, authorship and continuity, but also in relation to the question of creativity and the social value of oblivion.

KEYWORDS

Digital capitalism;
algorithmic undeath;
algorithmic culture; digital
labour; communication
theory; media theory; media
sociology; death; work;
culture theory

‘We suffer not only from the living, but from the dead. Le mort saisit le vif!’

(Marx 1976, 91)

Media always have shaped our real and imaginary relations to the dead (Walter 2015). For example, novel communication media alter the ways we relate to and mourn the dead (Gibbs et al. 2015; Gibson 2015; Pennington 2014; Offerhaus 2016; Morse 2016; Cumiskey and Hjorth 2017). However, digital media do not only alter our relations to the dead, but they might even shift the boundaries between life and death (Degnen 2018). The development of Social Media increasingly seems to resonate with a verse of the German poet Gottfried Benn: ‘Come, let us talk together, who talks is not dead.’/‘Kommt, reden wir zusammen wer redet, ist nicht tot’ (Benn 2006, p. 122, translated by the author). It is exactly in this sense that algorithms prevent us from our earthly disappearance: They force us to talk. With digital media, the consequences of death profoundly change. We are not just obliged to die someday (with the consequence everything we have to communicate ceases to exist) but at least in some sense, we also are obliged to persist. Digital communication platforms such as Twitter, Facebook,

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Google, data broking and diverse online shops introduce a new demarcation line for the negotiation between life and death. This development poses serious questions concerning our digital estate as well as the further use of digital data traces (Leaver 2013).

Computational processes enforce a phenomenon I suggest to call *algorithmic undeath*. In the course of this article, I would particularly like to point out that the phenomenon of algorithmic undeath is related to the valorization of data. Therefore, I suggest that the posthumous communication achieved by technical means should above all be regarded as labor. There is nothing exceptional about this specific kind of persistence after death, so no science fiction is needed for the sake of the argument. Nevertheless, the ordinariness and pervasiveness of algorithmic undeath and especially its relation to work seems to be largely missed by sociological or cultural theory.

I suggest that we first approach the phenomenon at issue by looking at an extreme example. As sociologist Siegfried Kracauer put it so well, we have to acknowledge that the extreme is nothing but the extension of the ordinary: It is only from its extremes that reality can be revealed (Kracauer 2012, p. 25). So let us begin with an example that received a lot of attention by the mass media as well as by scholars (Cf. Aceti 2015; Lagerkvist 2015; James et al. 2015): the strange service a Social Media company called *LivesOn* created.

Who speaks is not dead

I first stumbled upon *LivesOn* reading an article by *The Guardian* in 2013. In this article, journalist Will Coldwell suggests we would no longer need magical artefacts like Ouija-boards or occult mediums to communicate with the dead: ‘all you need is Twitter.’ (Coldwell 2013) *LivesOn* is said to analyze the online behaviour of its customers, their language patterns, interests and favoured *Tweets* as well as a variety of other personal data. With this data, the enterprise creates a data double which after the decease of the original *persona* continues to communicate via Twitter: The digital spectre of the customer will autonomously tweet, follow users and favour their messages. ‘*When your heart stops beating, you’ll keep tweeting*’ (*LivesOn.org*), the advertising slogan of *LivesOn* promised, although, of course, this ‘you’ is an algorithm. In this sense, *Apps* like *LivesOn* and services like *DeadSocial* seem to shift the relation between the living and the dead, either in that they continue to post messages on twitter by means of a digital ‘artificial intelligent’ double (*LivesOn, eterni.me*) or in that they facilitate to send final post-mortem messages to the social media network of the dead (*Dead Social*).

Right now, *LivesOn* does not seem to be in service anymore (i. e. the dead have found their peace). However, until today it’s not clear at all if one should consider *LivesOn* an artful hoax or a serious business project. It doesn’t seem to be a farfetched idea that maybe it was both. As Tama Leaver (2019) writes, *LivesOn* did get a lot of attention, not least because it has been related to a *Black Mirror* episode: The marketing agency that brought *LivesOn* into being ‘timed the announcement of their service’s launch to coincide with the first screening of “Be Right Back”.’ But maybe the question if *LivesOn* was hoax or real is not that important anyway. Back in 2013, news coverage on *LivesOn* provoked a lot of furor and even some moral upset, but the debate about the morality or immorality of this specific service misses the point. We should discuss this topic beyond the use or misuse of such idiosyncratic services. We should ask ourselves what we could see if we refrained to be seduced by the spectacular glitter that news media coverage or science fiction series like *Black Mirror* sprinkle on such services. I think

projects like *LivesOn* might not be important because they reveal an idea that is extraordinary or extreme but rather because they serve as a consequent prolongation of quite ordinary everyday phenomena.

One of those ordinary discoveries might be that, in a digital economy, the data traces we leave behind potentially will exist long after we have passed away (Jacobsen, Kearl 2014). We may turn off the web, but the web will not turn us off too. While communicating and moving around in everyday life physically and virtually, we constantly leave behind digital data traces. There are explicit data like postings on Social Media platforms, and there are implicit data like the patterns of our posting behaviour that usually are referred to as meta-data (Cf. Pentland 2014; Jarrett 2014; Bobadilla et al. 2013). The accumulation of data provides the basis to compute meaningful results, recommendations and predictions (Marmanis and Babenko 2009, 18.). In the case of Web 2.0 platforms, the accumulation of data is enabled by an 'architecture of participation' (Pybus, Networks, and Workers 2013, 141) which invites the user to transmit data. On these platforms, users engage in social relations and in the performative construction of individual and collective identities (Cf. Cheney-Lippold 2011). Digital platforms increasingly serve as 'biopolitical surveillance tools' (Ball, Haggerty, and Lyon 2012, S., 44) and create revenue through the trade and exploitation of data, for example by means of advertising or by selling products through personalized on-demand services (Srnicek 2017). The use of data mining algorithms ultimately is about predicting and controlling identity and behaviour. Consequently, former Google-CEO Eric Schmidt and his co-author Jared Cohen made clear they believe 'Identity will be the most valuable commodity for citizens in the future, and it will exist primarily online [...] We are what we tweet' (Schmidt and Cohen 2013). The persistence and ubiquity of data traces fundamentally are a prerequisite for what one is inclined to call 'algorithmic culture' (Hallinan and Striphas 2014).

One might think there is nothing new about this kind of persistence and ubiquity in relation to our afterlives: There always have been personal memories of the people who outlive us, as well as there have been writings, portraits and photographs (Cf. Stokes 2015). The cognition of others as well as the available media technology save and retransmit some data of our lives. Written documents, essays and books are not able to resurrect people; nevertheless, their contents can be fed back into communication. Because of this feature, in the course of history, the cultural technique of writing often has been rejected with great suspicion: Writings were considered as something dead, contaminating the living with long gone ideas and reducing their memory performance. This association of writing with death already began with Plato, who, as media theorist Walter J. Ong highlights, did not realize that writing is something deeply paradoxical: the lifelessness of text not only enables its durability but also the re-entry of textual messages into other contexts (Ong 2002, 80). To a large extent, it's the fixation through symbols, which, as Alois Hahn (2000, 165) puts it, paves the way for the very real afterlife of the dead in this world. Thanks to symbolic memory, single participants in communication who could be modelled as nodes in the network can cease to exist without causing society to break down. With the occurrence of literacy, their disappearance no longer implies that they aren't able to influence actual communications anymore. The disappearance of an individual does not mean all its significance for communication vaporizes. Since the invention of writing, the best friends of the living are the dead who speak to the living through their books. Consider Francis Bacons advice: '*optimi consiliiarii mortui*' (Bacon 2001 [1625], 78).¹ The best advisors are the dead. Just flick through

scientific literature and think about it: If it were common to mark every quote of a dead author with a cross, many publications would resemble graveyards.

This persistence of words and images occurred long before the rise of the digital age. This might also explain why media intrinsically seem to inhere something deeply melancholic: the messages communicated by media always tell us something about unavoidable and insurmountable distances between us and other people, whether these are distances in time, space or understanding. Moreover, a message or an image always is an artefact of the past, something that has been rescued from the past into the present. Roland Barthes (1982) was exactly right: The photography of a human being always refers to his or her death, be it in the past or in the future. However, in comparison with older means of communications, digital media enable something different, something one might want to describe as fragmentary immortality of individual communication structures. These communication structures can be actualized and valorized by algorithms. Of course, this is not immortality in a biological sense, it is just the persistence of communicative fragments or speech acts of a former living system. In case of books, what remains is loose data, in case of digital media whole communicative structures remain, waiting to be set in motion again. As Patrick Stokes (2012) put it, we could easily imagine a powerful AI able to exploit these data after our death to continue to post status updates on Facebook or playing Farmville, imitating our eternally bored presence. At this point, I want to emphasize a facet of Stokes' example: The importance of play in digital capitalism. Wark (2013, 114) is right when he writes that today, work is often disguised as a game: work becomes 'playbor'. Under current digital capitalism, waged labour is not the only way to accumulate capital. This reflects a development that also was referred to as prosumption several years ago; the intermingling of consumption and production seems to be a dominant mode of production in digital capitalism (Ritzer 2010, 62). The data traces stemming from activities like browsing social media are automatically traded and sold in milliseconds, whether it is day or night (Singer 2012). Besides data, the audiences of digital media platforms do also produce meaning, content and social relations ready for corporate exploitation (Fuchs 2019, p. 61; Skeggs and Yuill 2015, p. 4–7; Harcourt 2015, p. 18; Mager 2011). As Fuchs (2016, 245) so aptly writes: 'House workers, slaves, and Facebook users have in common that they are unpaid workers [...] who are exploited by capital.'

That is, the algorithmic undead might not only appear in the mode of simulated personhood, but they also might perform anonymous, slave-like labour. In this article, I am interested in this specific mode of undeath, which, in a way, is neither personal nor unpersonal, but transpersonal. Algorithms involve absent or dead persons into communication in fundamentally different ways than former media technologies: The digital data of the deceased do not just remain passively until a living being spends some attention on them. Algorithms process them regardless of living human attention. For example, the data of a deceased person who had an Amazon account could still be used to algorithmically process recommendations for another user who still is alive and well. Unlike in the case of older media like books or handwritten letters the inclusion of dead communicators varies the structure of communication even if no conscious being is involved in the data processing. In this sense, digital media become spiritualist media.

We know that the ancient Greeks did not fear death but the shadowy existence in the underworld of the Hades. Hades, which means, above all, the impossibility to fully

disappear, looks a lot like the digital world: The logic of contemporary communication platforms curses us to lead such shadowy existences because our data continually are further processed by algorithms, no matter if we are dead or alive. Algorithmic systems do not care or evaluate if the data they process stem from dead persons. Through digital algorithms, our data lead a life on it's own (Lehner 2017a).

Algorithmic processes ultimately are about the continuation of the cascading distinctions that each individual draws while communicating. Distinction is the foundation of information. As Gregory Bateson famously put it, information is a difference that makes a difference (Bateson 1972). The increase of entropy up to its final state of equilibrium is nothing but the loss of information. Therefore, the loss of information is in convergence with death. That is why, in the history of thought, we usually think death as pure identical, static and non-distinctive oblivion. As long as the information is processed by a system, as long as a system draws distinctions, death may be avoided. It is useful to remember that the Latin word »differe« does not just mean to distinguish, but that it also means »to postpone« or »delay« (Lang 1986, 293). However, paradoxically, not only death but also genuine novelty can stem from radical oblivion. Creativity itself could be thought of as a kind of continuous process of forgetting, dying and rebirth. In this sense, the algorithmic perpetuation or survival of some aspects of individual communications poses serious questions not only concerning our concept of death, personal identity, authorship and continuity, but also concerning creativity and the social value of oblivion. However, to address such questions, we have to ask which dimensions of death exactly are changed due to the use of digital communication technology.

Modes of being dead

We might distinguish different dimensions of death as well as different strategies to suspend these dimensions. First, let us consider the ideas of preeminent sociologists and philosophers who dealt with death as well as with media. In his opus magnum *The Information Age*, sociologist Manuel Castells (2010) concluded that the main trend of modern society is the pursuit of the technological eradication of death. Castells states that we seek to amortize death in all its forms. For example, we medically push back biological death and we try to get rid of the symbolic meaning of death. Through its steady medial presence and repetition, Castells believes, death becomes trivialized. Increasingly, we perceive death as a disease or a spectacle. The everlasting sequences of deaths in the media – be it in crime thrillers, news reports or horror stories – render death as the existential constant factor of our lives meaningless: Death always is the death of another (Cf. Castells 2010, 484). The reality of death and foremost, the reality of our own personal death and the death of our loved ones, strangely loses some of its significance because of this media environment. The images of death overwrite the imagination of death. Similarly, Sociologist Céline Lafontaine defines our modern relation to death as a condition of *postmortality*. Postmortality refers to a twofold process, in which death becomes deconstructed as well as desymbolized (Lafontaine 2010, 11). Jean Baudrillard claimed that this manic desymbolization and deconstruction of death lead to a culture of death: When a society seeks to radically exclude death, its culture becomes dead and strangely static (Baudrillard 1982, 203).

Castells, Baudrillard and Lafontaine refer to a biological as well as to a symbolic dimension of death. However, they do not seem to have in mind that today we also

have to take into account a socio-technical suspension of death, as newer scholarly contributions do (Stokes 2012; Lagerkvist 2015). Usually when we think of death, we think that this implies the irreversible end of personal communication. For example, Umberto Eco (2002, 178) assumes that individual or universal death is the very circumstance that ultimately blocks the semiotic universe. However, algorithmic technology may do the trick to remove this blockade. It seems to channel some of the elements destined to vanish back into communication, even though the result is clearly not the digital immortality techno-fundamentalists like Ray Kurzweil might dream of. Rather, it is the syntax of personal communication that becomes partially immortal by algorithmic exploitation.

Now, we can distinguish between different modes of death to understand what kind of eternal existence the digital age could offer:

- (1) The first mode of death is the most obvious one, *biological death*, the erosion of our cells, which can be described as the unfolded entropy in the organism. It is death as a physical law, or, more precisely, as the formula engraved in Ludwig Boltzmann's gravestone.
- (2) The second mode we may want to refer to as *social death*; social death is the fact that it is likely no one will remember us after a few generations. It is the kind of death King Gilgamesh sought to avoid by building the walls of Uruk after he had concluded there was no way to evade the death of the organism. It is the kind of death that already occurred to all the forgotten names. From a sociological point of view, social death also is the most radical form of exclusion, and in some sense, it even is more devastating than biological death. Social death is also related to the death of a social persona: as noted by anthropologists and sociologists like Degnen (2018, 249), in many cultures personhood does not necessarily end with death. Today, digital media also extend digital personhood after biological death (Degnen 2018, 231; James et al. 2015, 6). It is easy for a social person to survive death, for a self, not so much (Stokes 2012, 377).
- (3) The third mode might be referred to as *subjective death*; the death of ourselves as phenomenological subjects. It is this death that we – as the Epicureans taught – will never experience (as long as I am alive, death is not here, and when death is here, I am not) but which still awaits us as irrefutable reality. As an organism, one even might survive subjective death, as it might occur in cases of brain death. In the case of total amnesia, one even might be born again in a new subjectivity and find a new life after subjective death.
- (4) The fourth mode of death we might refer to as *communicative death*. This would be death on the level of communicative influence and participation: As living persons, we are entangled in the seemingly unending stream of communication. When our capacity of active and current communicative involvement ends and we are not able to process signs anymore that in some way relate to us as persons, we are communicatively dead. This mode of death also involves the disappearance of a unique communicative structure loosely coupled with a person. We can think of this structure as a syntactic, semantic and pragmatic pattern. For the sake of the argument, it is important to bear in mind that this communication pattern is not to be confused with the personhood attributed to

this pattern. Posthumous platform services like *eterni.me* and *LiveOn* clearly play with this mode of death (James et al. 2015, 6–10).

The digital suspension of death does not affect the biological or subjective dimension of death but is related to the other dimensions of death, first and foremost to the loss of the syntactic, communicative pattern each individual develops. For example, one could easily imagine a future in which algorithms write new books in the style and diction of deceased poets or compose new songs of deceased pop stars. In fact, already today an algorithm is able to produce new and deceptively convincing oil paintings in the style of Rembrandt or Caravaggio (Cf. Reynolds 2016). Such algorithmically produced books would revive the artists' communicative structure, however it clearly would not suspend his or her biological, social or subjective death. The mere potential of this scenario calls for questions concerning the culture we live in, for example questions in relation to originality, authorship and attribution. However, even though algorithms might be able to mimic the communicative structures of the dead, this does not mean that the result is something resembling the living persons, rather, algorithms might be able to create a digital undead, that is, a digital persona eternally trapped in the repetition of a former present. For example, an algorithm might be able to reproduce convincingly works of Caravaggio at the point of his death; however, the genius and the humane of the original Caravaggio are likely not to be found in the self-reproduction of a structure but in the very transgression of himself as a communicative structure.

Datafication and the algorithmic undead

Commercial offerings like *LivesOn*, *Eterni.me* or *DeadSocial* do not just show a good sense of humour; more so, they make apparent a new but already existing socio-technical problem: The impossibility of digital death and the question who owns and processes the data of our lives. For example, Leaver (2013) has rightly criticized Google's Gmail service for excluding the bereaved from accessing the data on the server. Moreover, we are also excluded from the sovereignty over the use or deletion of our own data. Precisely because our user data is exploited automatically in the neverending stream of web platforms, we are already undead during our lifetime. However, digital death management services also tell something about the ideological demands and phantasms we are confronted with. In our society, it seems, the show must go on forever: communication has to continue infinitely. Addressability as well as availability always must be possible: death is not an excuse for communicative inactivity anymore. This imperative of communication seems to be deeply rooted in the ideology of contemporary consumer culture and is an effect of today's capitalist logics of value creation. Digital capitalism creates algorithmic undeath because in real life death renders value creation impossible. Technology is always contaminated by ideology, or, as Althusser 2010 [1970] would say: ideology has a material existence. In a particular sense, it therefore seems to be quite consequent to assume that the prognosis of communicative behaviour through pattern recognition must be read as the realization of a dirty little dream of ideology, the dream of unending work, deprived of any possibility to resist and thus even deprived of the potential of one's own death. Digital capitalism captures the living labour of the users to objectify and valorize it. Christian Fuchs (2019,

p. 57) calls this development the 'rise of big data capitalism'. As Marx says, the transformation of living labour into objectified labour is the fundamental operation of value creation:

'It is precisely as value-creating that living labour is continually being absorbed into the valorization process of objectified labour. In terms of effort, of the expenditure of his life's energy, work is the personal activity of the worker. But as something which creates value, as something involved in the process of objectifying labour, the worker's labour becomes one of the modes of existence of capital, it is incorporated into capital as soon as it enters the production process. This power which maintains old values and creates new ones is therefore the power of capital, and that process is accordingly the process of its self-valorization. Consequently, it spells the impoverishment of the worker who creates value as value alien to himself.' (Marx 1976, 988)

The algorithmic objectification of labour implies the trivialization of the user who is the origin of the data value. Niklas Luhmann (2004, p. 187) once remarked that the distinction between life and death in the course of modernity transposed into the moral distinction between life and the mechanical/rational/objectified. Traditionally, the mechanical is considered to be dead and predictable, whereas the acts of living systems are characterized by unpredictability. Baudrillard might have claimed that our culture is a culture of death, but, if one takes into account the dichotomy between the mechanical and the living, one equally well could claim that we reached a cultural form which also could be called a culture of life, insofar this culture, technologically, increasingly takes measure on life itself. One also could claim that with digital technology, in some ways the dichotomy between life and death itself enters a state of crisis. Life and death seem to be captivated in an undead condition.

As Kenneth Burke writes, on the semiotic level of human communication predictability is equivalent to the exploitation of 'dead' parameters or data traces: '[...] it is in this way that a man defies total prediction until he is finished. Indeed, prediction is in effect the application to living man of parameters derived from the realm of death; that is, the possibilities of the future are reduced to terms derived from the past.' (Burke 2003 [1967], 236).

In a particular sense, to be predictable means to be dead. Predictability is accompanied by greater calculating powers. The emotional impact of algorithmic predictability on our self-perception is not so much due to the fact that we fear surveillance. It stems from the fact that predictability uncovers how trivial everyday life and its communication is (Lehner 2017b).

Algorithmic technology draws its effectiveness from its apparent capacity to trace and sketch life in machine-processable data form. Nevertheless, formalization always implies trivialization. This is why algorithmic pattern recognition in some way seems to trouble our self-image. The point is not that the poems written by algorithms are trivial but that the poems written by human poets become trivial if algorithms can do the job just as well. Simmel once claimed that the machine is more spirited and cultivated than the worker (Simmel 2009, 720). At the end of the 19th century, the industrial machine degraded manual work. Today, the same goes for the automation of mental, creative and communicative work. Goethe thought that everything that should appear alive must be veiled. In light of the performances of socioalgorithmic infrastructures, the thesis that the appearance of non-triviality and aliveness is owed to the capacity to disguise seems to be reasonable. In his

Western Attitudes toward Death Philippe Aries explains that the practice of embalming, which is widespread in the US, is intended to prolong the illusion of life (Aries 1974, 102). Death is held back by a kind of veiling. The philosopher of technology Gotthard Günther thought of a similar connection:

Maybe, the idea of the zombie is one of the points of departure for an American metaphysics of death. It is nothing but a mythologization of the tendency to separate all elements of death from spiritual life. In principle, everything that occurs as a content of the soul can be objectified. However, if everything that one is able to objectify one has to attribute to the world of objects and thus to the world of the dead, one has to conclude that phenomenal life itself must be attributed to the sphere of death. Thus, perceived life is not life, but a walking death. [...] In this sense 'mechanical brains' are a technological version of the idea of the zombie. They are – as their construction idea indicates – an exemplification of this theorem: Any self actualising thinking is mechanic and dead, not because of its results, but because of the process itself. (Günther, 2000, p. 251, own translation)

Again, this tells us a lot about our contemporary ideological framework that seems to resemble the story of Sisyphos and Thanatos. In this myth, Sisyphos, a mortal heros, tricked Thanatos, the Greek god of death. Thanatos was bound in chains, while Sisyphos led humanity into the golden age, in which people did not die anymore. Then, Thanatos was set free by the gods. As a punishment, he forced Sisyphos into the Hades, where until today he is condemned to continue his senseless work. Death foremost marks the end of work and the end of communication. As the Swiss writer Lukas Bärfuß elaborates in his piece about his brothers' suicide, death often serves as a radical refusal of work: This refusal is key to understand why our society is not able to pardon suicide (Bärfuß 2014, 177). It also is key to understand why in the future our final communicative disappearance may not be accepted anymore.² Not only are we expropriated of our lives, but we are expropriated of our deaths as well.

Undead work and capitalist valorization

Caffentzis and Federici (2013, 58) suggest that the cyberspace holds the promise or threat of a 'truly capitalist BEING, in a purely capitalist plasm and a final purely capitalist sequence of work events [...] Weightless, formless neurosystems unwebbed and ready for infinite rewebbing.' In a similar vein, Fleming (2015, 51) pointed out that the utopian dreams of neo-liberal intellectuals like August Hayek or Ayn Rand neatly fit to the utopia of today's IT entrepreneurs: 'This is the founding fantasy for those who idealize the so-called self-regulated market mechanism: a non-peopled machine. [...] Computers can appropriate the irregularities indicative of class politics and smooth them out indefinitely. The blemish of sociality ought to be purged from human affairs as far as possible. This is only achievable if we all become commercialized moments in a network without history and biography – and thus, in particular, one of mankind's greatest inventions, time-wasting idleness, is eradicated.'

Already Foucault (1976, 117) pointed out that man's life and time are marked by pleasure, feast and rest, coincidences, desires, and even violence, while capital seeks to turn this momentary, raw and explosive energy into workforce. The digital undead is the phantasmatic, albeit quite real, endpoint of this transformation, the perfect object of exploitation, a 24-hour working machine: A non-person without any capability to resist,

without hopes, anger or desires. That's why I argue that we should understand fantasies of digital immortality as a reflection of our predominating work ideology.

From a Marxian point of view, the capitalist organization, if it is seen as the embodied will of capital, will always be interested in extending the working day as long as possible in order to create greater surplus value (Marx 1976). The limit of the working day at a given point in history is first and foremost the historical result of class struggles (Marx 1976, 344). However, as Marx writes:

'The prolongation of the working day [...] only slightly quenches the vampire thirst for the living blood of labour. Capitalist production therefore drives, by its inherent nature, towards the appropriation of labour throughout the whole of the 24 hours in the day. But since it is physically impossible to exploit the same individual labour-power constantly, during the night as well as the day, capital has to overcome this physical obstacle.' (Marx 1976, 367)

When Marx speaks about capitals strategy to 'overcome this physical obstacle' he thinks of the alternation between day shifts and night shifts in factory work (a critique that has been excellently renewed by Jonathan Crary (2013) when he inquired the abolishment of sleep in late capitalism). Obviously, the real 'physical obstacle' is life itself: The tendency of the living to tire, to become hungry, to lose motivation, to be distracted or to resist. As Marx notes: 'The labour-power withdrawn from the market by wear and tear, and by death, must be continually replaced by, at the very least, an equal amount of fresh labour-power' (Marx 1976, 275). Naturally, death itself is the ultimate limit of capitalist reproduction. Marx claims that two obstacles usually restrict the maximum limit of the working day: First the working day is restricted by the physical limits of labour power (fatigue, hunger, death and so on); second, the working day also 'encounters moral obstacles. The worker needs time in which to satisfy his intellectual and social requirements, and the extent and the number of these requirements are conditioned by the general level of civilization.' (Marx 1976, 341) Digital platforms found ways to bypass both of these obstacles. To a large extent, digital capitalism thrives by more or less secretly capturing and processing data traces people leave behind during their lifetime. The valorization strategies of digital platforms cannot be properly understood if they are not perceived as answers to a problem inherent to capitals relation to labour: 'Capitalism's very structure compels capitalists to try to exploit labour as much as possible in order to survive in the competitive race and to increase its profits. [...] If capital could, then it would reduce wages as far as possible towards zero in order to increase profits. If it had unlimited supply of, access to, and coercive power over labour power, it would pay no wages at all and make workers toil for 24 hours a day in order to maximise profits.' (Fuchs 2016, 350)

In the neo-marxist discussion, peoples' living activity captured by online platforms is usually referred to as digital labour (Johanssen 2019, p. 94–97; Fumagalli et al. 2018; Terranova 2013). It is the commons of our lives that are privatized to create revenue. As Hardt and Negri (2000, 402) rightly claimed nearly 20 years ago, in the twenty-first century 'the production of capital converges ever more with the production and reproduction of social life itself'. Today, our lives are analysed and exploited by algorithms with the aim of creating surplus value: We are, more than ever before, the traces we leave behind in communication in form of structural data patterns. As such data streams, we are always at

work: As you read this sentence, your data traces circulate on the World Wide Web, are sold and bought, analysed and exploited. In ancient Rome, the term person was reserved for a public function or role. However, *persona* also meant mask. Masks were also called *larva*, ghost (Fuhrmann 1996 [1979], 86). Maybe this leads us to the actual lesson we can draw from the excitement about dead personas participating lively in social media networks: On the one side, it becomes clear that under modern capitalist conditions, communication is an insatiable fetish. No one shall be released from its control. On the other side, the sheer possibility of communicative resurrection by stochastic means refers to the fact that although we are alive, in an essential way, we already have become our ghostly shadows – and ghosts fear death even more than the living.

Notes

1. Bearing in mind Bacon was a great anti-scholastic thinker, this is a quite remarkable statement.
2. This also renders the 'right to be forgotten' essential when it comes to resistance against digital platforms. In 2007, Mayer-Schönberger (2009, p. ix) was the first to propose that in the digital age the 'right to be forgotten' might be an essential supplement to traditional privacy rights. In the last years, at least within the European discourse, the 'right to be forgotten' did get some political attention. The European Unions 'right to be forgotten', as established by the *General Data Protection Regulation* (GDPR) in 2018, may be an important move to protect personal data, however so far it does not smoothly meet its purpose. For example, according to *noyb* (an European NGO engaged in data protection), literally all popular streaming services fail to comply the GDPR (*noyb* 2019). Moreover, and this is important for understanding the thrust of this article, the right to be forgotten refers to the right to demand the deletion of data relating to a person (Voigt and von Dem Busche 2017, 156). It does not take in account that our data trace do also live on in transpersonal ways. Currently, there is simply no realistic way to delete data that is not explicitly linked to the name or profile of an individual. This kind of data is further processed, bought, sold, used to persuade or manipulate people or to improve AI systems. With recourse to the modes of death as elaborated in this article, we may say that the right to be forgotten enables some sovereignty over one's social death, but that it does not offer sovereignty over ones communicative death. We should not assume, that our data traces at some point dissolve. While the digital economy evolves and enterprises rise and fail, these data traces are just woven further into an insatiable data ecology. Enterprises and individuals may die, but this does not seem to be the case for the data diffusing into the cloud.

Disclosure statement

No potential conflict of interest was reported by the author.

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