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Identity 5.0: How to Fight Algorithms Online (Fast)

Heuristic Compressions of Personality Concepts (Dis)Obedient to Algorithmic Power— from Film, Television and a Cult Classic Novel

"This is the voice of world control. I bring you peace.
It may be the peace of plenty and content
or the peace of unburied death.
The choice is yours.
Obey me and live.
Or disobey and die."
"Colossus: The Forbin Project" (USA 1970)

How does the increasing influence of algorithms[1] shape the development of current and future identities[2], the idea of what it means to be human? What can we learn from fictional characters to counter surveillance,

1 The mathematical use of algorithms can be traced back roughly four thousand years to the ancient Sumerian civilization, the word algorithm to the ninth century, to Persian polymath Muhammad ibn Musa al-Khwarizmi. The term algorithm stems from the Latinization of his name al-Khwarizmi to "Algorithmi", that took place three hundred years later (cf. Zweig, Katharina: Ein Algorithmus hat kein Taktgefühl, Munich 2019, p. 50). It describes a step-by-step procedure to solve mathematical problems. The evident example is the navigation system that calculates the shortest route based on the current position and a given destination (cf. ibid., pp. 50–51). In machine or deep learning algorithms, it is not the compilation of rules that comes first (as it is the case in rule-based algorithms), but rather an input data set used to train an artificial neural network. Since such algorithmic systems learn similarly to living organisms—via trial and error—they are subsumed under the term artificial intelligence or AI (cf. Fry, Hannah: Hello World. Was Algorithmen können und wie sie unser Leben verändern, Munich 2019, p. 23). The machine is given a goal, fed data, and manages to figure out how to reach the goal by itself. Such algorithmic systems can become black boxes even for their programmers. Their key advantage is that, by analysing a mass of data, they can detect even weak correlations invisible to humans.

2 The term "identity" is understood here as an individual's communicatively constructed self-image determined by social constraints (cf. Akremi, Leila: Kommunikative Konstruktion von Zukunftsängsten. Imaginationen zukünftiger Identitäten im dystopischen Spielfilm, Wiesbaden 2016, p. 41). While the identity was extensively predetermined in traditional societies, it is becoming increasingly performative in modern, especially in pluralistic and individualistic ones. Successful identity work is measured by individuals from the inside by the criterion of authenticity and from the outside by the criterion of recognition (cf. Keupp, Heiner: Vom Ringen um Identität in der spätmodernen Gesellschaft, Lindau 2010, p. 14). Recent research suggests that human beings behave irrationally and inconsistently, they are increasingly perceived as subjective, biased, and manipulable. In this context, Zweig refers to Kahnemann's research on the irrationality of humans and Thalers idea of "nudging" (cf. Zweig 2019, p. 10). This gives rise to the assumption

manipulation and control, executed by machines? Is the assumption of an overpowering algorithmic influence perhaps itself contaminated by fiction?

With digital transformation, the influence of algorithms rises, they have crept into almost every area of modern life—health, crime, traffic and politics. Algorithms evaluate our personality, help us navigate and find our partners, and declare us creditworthy or not.[3] Algorithms accumulate behavioral data, make decisions, monitor, predict future actions, manipulate and discipline.

Regarding the rapid technological developments of data mining and deep learning, innovative optimism arises, but also a feeling of unease. Citizens become more and more uncomfortable about the mostly non-transparent collection of data and hence the resulting power of companies, governmental and other actors who utilize this data.

Artist James Bridle sees himself transferred into a "New Dark Age" in which technology plays not a salvific but a sinister role.[4] Political scientist Sebastian Heilmann described the implementation of "Sesame Credit", the Chinese "Social Credit System", as a sort of "techno-authoritarianism".[5] Adrian Lobe states that, in the current age of "datopocene", such techno-authoritarianism is realized almost everywhere.[6] Social psychologist Shoshana Zuboff also criticized the developing of a "surveillance capitalism" and demanded increased protection of personal data and transparency[7], Peter Schaar believed "post privacy" to be a road to a "surveillance society".[8]

that intelligent machines are more incorruptible than humans, capable of more objective decisions.

3 Cf. Schaar, Peter: Das digitale Wir. Unser Weg in die transparente Gesellschaft, Hamburg 2015, p. 50.

4 Cf. James Bridle: New Dark Age, Munich 2019.

5 Cf. Unknown author: China-Experte: Corona-Pandemie treibt Techno-Autoritaritarismus in China voran. Osnabrück, 25/01 (2021), https://www.presseportal.de/pm/58964/4820118 (November 13, 2021).

6 Cf. Lobe, Adrian: Speichern und Strafen. Die Gesellschaft im Datengefängnis, Munich 2019. By "datopocene", Lobe is referring to a phase in human history, in which search engines, smartphone apps, fitness trackers, and 'smart homes' store data about their users and pass it on to service providers, who in turn improve their products and service with them—but also are possibly trading on these data.

7 Cf. Zuboff, Shoshana: Zeitalter des Überwachungskapitalismus, Munich 2018.

8 Cf. Schaar, Peter: Das Ende der Privatsphäre: der Weg in die Überwachungsgesellschaft, Munich 2009.

Regardless of the political systems in which algorithms are used: Constant measurement of their inhabitants seems to inevitably lead to social adaptation. It can be assumed that algorithms shape the identity of the homo digitalis—whether he is aware of this or not.

Looking to the future, several dystopians go far beyond aforementioned warnings: They fear the development of a Singularity, an AGI (Artificial General Intelligence) that surpasses human intelligence.[9] Back in 2014, the now deceased cosmologist Stephen Hawking warned: "The development of full artificial intelligence could spell the end of the human race."[10] Computer scientist Kai-Fu Lee also explains that a super intelligent entity could effortlessly wipe out humanity.[11] Bostrom, who has interviewed several AI researchers, indicates that the median forecast for an AGI to be developed is 2040.[12] According to the dystopians, it could very quickly become urgent to counteract threatening algorithms and the development of even more powerful machines.[13]

But how can we escape or resist algorithms? How might forms of disobedience to constant algorithmic surveying, monitoring, manipulation, control or even deadly force look like?

9 Oxford philosopher Nick Bostrom considers such a "superintelligence" an existential risk (cf. Superintelligenz, Frankfurt 2014), Tesla founder Elon Musk the greatest risk that human civilization will have to face (cf. Lee, Kai-Fu: AI Superpowers. China, Silicon Valley und die neue Weltordnung, Frankfurt/New York 2019, p. 187). Physicist Antony Garrett Lisi assumes that robots will rule us in the future (cf. Brockmann, John [Ed.]: Was sollen wir von der künstlichen Intelligenz halten? Frankfurt 2017, p. 52)—which is why the roboticist Anthony Levandowski already founded, as a precautionary measure, the "Way of the Future Church", which intends to realize, accept and worship an AI-based deity made of hardware and software (cf. Zweig 2019, pp. 269–270).

10 Rory Cellan-Jones: Stephen Hawking warns artificial intelligence could end mankind, BBC News, 02/12 (2014), https://www.bbc.com/news/technology-30290540 (November 13, 2021).

11 Cf. Lee 2019, p. 188.

12 Cf. ibid.

13 The situation appears even more virulent, regarding the so-called "Collingridge dilemma": In his 1981 book "The Social Control of Technology", David Collingridge explained that the unintended side effects of a new technology are often only identified once it has become so widespread that it will be reversed at great economic expense, if at all. An obvious example is the internal combustion engine and individualized traffic. Cf. Zweig 2019, p. 279.

Cinema, television and literature test ways of resistance against rulers and usurpers within the realms of aesthetics. But might an evaluation of these experimental attempts be profitable in respect to disobedience to algorithmic power?

An examination of fiction should not be aiming at empirically supported predictions about probable futures.[14] Nevertheless, literature, films and TV serials must be regarded as defining forces, due to an ontological shift within scientific discourses. For if the concept of reality was previously conceived as societal mediated, it has been increasingly understood as communicatively constructed since the 1990s.[15] But if our knowledge about reality—and thus about identity—is acquired communicatively, mass media must be considered influential. Schroer presumes that our knowledge on social topics as 'work', 'poverty', 'family', 'gender', 'art', 'law', 'religion', 'economy', 'city' or 'surveillance' comes to a large extent from cinema.[16]

As objectifications of social desires, hopes, and fears, movies contribute to (self-)observation of society.[17] And cinema, television, and literature have always, by presenting heroes, victims, villains, or even ordinary persons, made offers of identity concepts.[18]

Those imaginations accumulate by time, so that the future is mostly thought of in concepts from (science) fiction[19]—a "colonization of the future" (Giddens).[20] Evidence for this is that companies or technologies are named after fictional elements: "Palantir Technologies'" name stems from the "palantírí", the indestructible crystals of J. R. R. Tolkien's "Middle Earth",

14 Cf. Akremi 2016, p. 116.

15 Cf. ibid., p. 7. In this context, Akremi refers especially to the work of Hubert Knoblauch (1995, 2010, 2013).

16 Cf. Schroer, Markus: Die Soziologie und der Film. In: Schroer, Markus (Ed.): Gesellschaft im Film, Konstanz 2008, p. 10.

17 Cf. Akremi 2016, p. 118, p. 620. Incidentally, this is also true for aged fiction—cult movies and classics—which can influence society far beyond their release date (cf. ibid., p. 126), which is why these are also dealt with in this article.

18 Cf. Peltzer, Anja: Identität und Spektakel. Der Hollywood-Blockbuster als global erfolgreicher Identitätsanbieter, Konstanz 2011.

19 Cf. Steinmüller, Karlheinz: Gestaltbare Zukünfte. Zukunftsforschung und Science Fiction. Werkstattbericht 23. Sekretariat für Zukunftsforschung, Gelsenkirchen 1995, p. 3, https://steinmuller.de/de/zukunftsforschung/downloads/WB%2013%20Science%20Fiction.pdf (November 13, 2021).

20 Cf. Giddens, Anthony: Modernity and Self-Identity. Self and Society in the Late Modern Age, Cambridge 1991, p. 111.

with which one can look into the future or the past[21]—and a NSA surveillance program is named after the antagonistic computer network "Skynet" of the "Terminator" cinema series (USA 1984, 1991, 2003, 2009, 2015).[22]

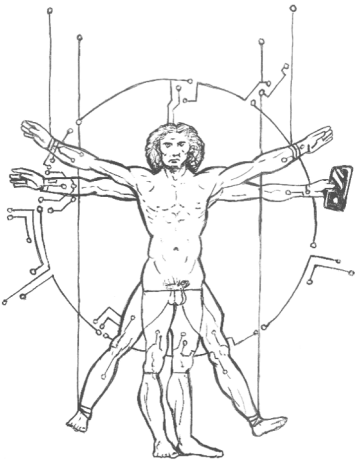
Within science fiction, hacker films, espionage thrillers, in arthouse cinema and biopics, there are depictions which—mutatis mutandis—show strategies of disobedience that could be useful against algorithms. From a multitude of character concepts, four heuristic ideal types are compressed below, each of which is paradigmatic for a specific approach against algorithmic force: E-pimetheus, Phantom, E-xistentialist and Dice Man. These four 'disobedient' identity types are preceded by an 'obedient' Puppet Identity to illustrate different dimensions of algorithm dependence. The compression undertaken is inspired by the method of distant reading.[23]

21 Cf. Sontheimer et al.: Palantir Technologies: Die geheimnisvollen Datensortierer. 30/10 (2020). In: ZEIT Online, https://www.zeit.de/digital/internet/2020-09/palantir-technologies-daten-analyse-boersengang-peter-thiel-alex-karp/komplettansicht (November 13, 2021).

22 Cf. Zweig 2019, p. 172. Made public by the leak of Edward Snowden in 2013, the "Skynet" software is designed to determine the risk of terrorist activity from the cell phone data of 55 million users.

23 The term "distant reading" was coined by the literary scholar Franco Moretti and means looking at as many works as possible from a great distance and evaluating already existing secondary literature—with a focus on overarching patterns and systems. Cf. Moretti, Franco: Distant Reading, Konstanz 2016; Moretti, Franco: Kurven, Karten, Bäume. Abstrakte Modelle für die Literaturgeschichte, Frankfurt 2009. At the Stanford Literary Lab, of which Moretti is director, computers are used to process large quantities of text using statistical methods.

Puppet Identity



Algorithms exercise a secret power, they slowly and imperceptibly change what it means to be human. In the fictional domestic plot of "The Social Dilemma" (2020), a digital double of teenager Ben (Skyler Gisondo) is assembled from data points of his internet usage. As his doppelganger's appearance approaches Ben's, the boy becomes a puppet controlled by data collectors—they can predict and manipulate his actions.[24]

It seems obvious that the Puppet Identity is generous with its data, exchanging it for products and services. It is no accident that dictatorial supercomputer "Colossus" demands total control by surveillance[25] and that the dystopian novel "We" by Yevgeny Zamyatin (1920; TV adaptation: 1982) depicts a state in which all buildings are made of glass.[26] Puppet Identity's willingness to provide data is not due to its naivety, but rather to economic conditions. Cathy O'Neil points out that the protection of personal data is increasingly becoming a luxury that only the wealthy can afford.[27]

Collected data is used to give us feedback, which is experienced as helpful where fitness trackers and productivity apps help us self-optimize or where online shops or streaming sites can effortlessly predict which products

24 It has to be said that reality is probably not as monocausal as director Jeff Orlowski depicts it, cf. Schinke, Chris: Das Dilemma mit den sozialen Medien, Bonn 2020, https://www.filmdienst.de/film/details/615660/das-dilemma-mit-den-sozialen-medien#kritik (November 13, 2021).

25 Cf. Akremi 2016, p. 411.

26 Cf. ibid., p. 92.

27 Cf. O'Neil, Cathy: Angriff der Algorithmen. Wie sie Wahlen manipulieren, Berufschancen zerstören und unsere Gesundheit gefährden, Munich 2017, p. 232.

and services suit our taste. At the same time, however, algorithmic systems pursue "optimization" in terms of their own agenda: to improve goods and services, but also to harvest, analyse and sell user data.

Jaron Lanier states that almost all providers based on siren servers attain information sovereignty through their superior computational capacities, thus almost inevitably leading to a monopoly position.[28] It is a concern of almost all providers that users spend as much time as possible with their platforms—which is discussed under the term "addictive technology".[29]

Algorithmic systems exploit Puppet Identity's flaws, e.g. designing privacy statements in such a way that it is more convenient to accept them unread or starting the following streaming series episode without asking. Puppet Identity thus spends its time using addictive technology while the number of its friends and likes in social networks publicly documents its esteem in which it is valued.[30]

But this does not mean that networking Puppet Identities would lead to stronger sense of social cohesion. Schaar refers to a study that demonstrates that digital natives trust other human beings significantly less than the generations of non-liners and digital immigrants—probably caused by the debate culture on the Internet, the lurking dangers of cyberbullying, "trolls" and shitstorms.[31] There is currently also widespread discussion about filter bubbles and echo chambers, that algorithmically automated adaptation of (also: news) content to consumer preferences leads to a lack of exchange with dissenters.

Interaction via social media platforms doesn't leave Puppet Identity sustainably happier: If the analysis of a user's online conduct reveals that she is more likely to buy certain products when she is sad, algorithmic systems will try to influence her emotional state accordingly—by displaying news content that also led her to "like" or share rather negative posts the last

28 Cf. Lanier Jaron: Wem gehört die Zukunft? Munich 2013, pp. 18. It is no surprise, then, that the market is currently dominated by a few major players, the so-called "Seven Giants of 'AI age'": Google, Facebook (now called "Meta"), Amazon, Microsoft, Baidu, Alibaba and Tencent (cf. Lee 2019, p. 115).

29 Cf. Zweig 2019, p. 273. See also: Alter, Adam: Unwiderstehlich—Der Aufstieg suchterzeugender Technologien und das Geschäft mit unserer Abhängigkeit, Munich 2017; Wu, Tim: The Attention Merchants. The Epic Struggle to Get Inside Our Heads, London 2017.

30 Cf. Schaar 2015, pp. 31–31.

31 Cf. ibid., p. 33.

times.[32] Back in 2017, a study suggested that social media use could increase feelings of social isolation.[33]

Puppet Identity's social adaptation is enhanced by its awareness of constant evaluation—its scorisation. According to Schep, there is a "digital reputation economy" emerging that leads to a "culture of conformity".[34] Schep speaks of social cooling, referring to chilling effects that Peter Schaar describes as intimidation reactions resulting from constant surveillance: Those who are monitored feel an urge to socially adapt and may even voluntarily refrain from asserting their rights.[35] Political scientist Adrian Lobe assumes that even a "post-punishment society" is emerging, because algorithms would prevent undesirable conduct in advance.

Predictions made by mathematical algorithms are reliably more accurate than those made by humans.[36] This has led to the widespread assumption that it is advisable to leave important decisions to intelligent machines. This is also the argument of the American president (Gordon Pinsent) in "Colossus": "Colossus' decisions are superior to any we humans can make. For it can absorb and process more knowledge than is remotely possible for the greatest genius that ever lived."[37]

Accordingly, Puppet Identity blindly trusts the machines and defers a notable amount of decision-making to them—and thus increases its dependence on them. But since algorithms act as unfathomable black boxes, their judgment and decision come like a divine verdict. Respectively, in "Colossus", the American president warns his CIA official Grauber (William Schaller). When the latter asks: "Persistent evil, isn't he?"[38], he answers "Don't personalize it, Grauber. The next stop is deification".[39]

32 Cf. Paar, Christof in: Barbera, Patrizia: Facebook & Co.: Das Dreieck des Wandels. 22/02 (2021), https://heise.de/-5061297 (November 13, 2021).

33 Cf. Primack, Brian A. et al.: Social Media Use and Perceived Social Isolation Among Young Adults in the U.S.. In: American Journal for Preventive Medicine, 06/03 (2017), https://doi.org/10.1016/j.amepre.2017.01.010 (November 13, 2021).

34 Cf. Schep, Tijmen: Social Cooling, https://www.tijmenschep.com/socialcooling/ (November 13, 2021).

35 Cf. Schaar 2015, pp. 167–168.

36 Cf. Fry 2019, p. 35.

37 Akremi 2016, p. 414.

38 Ibid.

39 Ibid. That humans are indeed prone to deification of computers in recognition of their amazing capabilities is evidenced by a statement made by chess grandmaster Garry Kasparov, who remarked a few days after losing to IBM's Deep Blue in

Puppet Identity nevertheless does not question the prognoses, judgments, and decisions of the algorithms, considers them objective, impartial, and safe, increasingly trusting them more than its own abilities. Back in 2015, psychologist Epstein explained that people assume that search engines make wise choices. Users do not even consciously notice when they are being manipulated, but assume they are forming their own opinion, they believe to have voluntarily adopted a certain way of thinking[40]—a phenomenon for which the acronym SEME (Search Engine Manipulation Effect) was coined.[41] The more its political and consumer decisions are guided by machines, the more manipulable Puppet Identity becomes. It seems evident, then, that it will be conformist, consumerist, fashionable, state of the art, self-optimized, and status-conscious.

Puppet Identity is not aware of the fact that algorithms can be prejudiced, that they may even reinforce preconceptions by not treating individuals as such but sorting them into "tribes" of similar ones—which in the worst case can lead to collective punishment, relying just on weak characteristics—e.g. how quickly the members of the cluster type or how charged their cell phone battery is.[42]

Since 'social engineering' is used in capitalist technocracies in the sense of Taylorism and Fordism primarily to increase productivity and efficiency of the workforce[43] and to adapt to needs of the market, Puppet Identity enters further technological dependencies.

It is quite likely that Puppet Identity will not be among those privileged by "new work". Schaar argues that numerous indicators suggest that the distribution of wealth will continue to polarize with increasing digitization. Steltzner expects that there will be a minority that tells the computer what to do—these few will possess the greatest wealth. Opposite them, there will be a much larger group of precariously employed people who will be told what to do by the computer.[44] Historian Yuval Noah Harari also fears that a tiny AI

May 1997 that the computer "suddenly played like God for a moment". Cf. Fry 2019, p. 18.

40 Cf. Fry 2019, pp. 28–29.

41 Epstein, Robert; Robertson, Ronald E.: The search engine manipulation effect (SEME) and its possible impact on the outcomes of elections. 04/08 (2015), https://www.pnas.org/content/112/33/E4512 (November 13, 2021).

42 Cf. Lee 2019, p. 152.

43 Cf. Akremi 2016, p. 316.

44 Cf. Schaar 2015, p. 20.

elite will be faced with a vast global "useless class", that most human beings will no longer succeed in creating enough economic value to make a living.[45]

So Puppet Identity's work is choreographed by sophisticated software utilizing every minute. If the market demands it, work must be done during the night, on public holidays or at weekends.[46] Puppet Identity will not rebel against exploitation for fear of ending up like some beggars on China's streets: With a paper showing QR codes for Alipay and WeChat.[47]

Movies like Fritz Lang's "Metropolis" (1926) or Chaplin's "Modern Times" (1936) created powerful images of how the working class is subjugated to the rhythm of machines.[48] "Colossus" meticulously dictates his entire daily routine to Dr. Forbin (Eric Braeden). Any resistance is immediately punished.[49] In Zamyatin's novel "We", the daily routine of all citizens is synchronized.[50]

By relying increasingly on automated systems, Puppet Identity also gradually loses its own capabilities—an effect that psychologist Lisanne Bainbridge described as an "Irony of Automation".[51] It is obvious that this effect is dangerous for its livelihood.

Puppet Identity even voluntarily pursues a self-algorithmization because of the prevailing optimization ideology. Computer scientist Lee describes how he quantified everything in his life, balanced those inputs, and fine-tuned the algorithm as much as possible[52]—which made him lose his humanity.[53] Focusing on (self-)optimization, he missed to lovingly interact with people closest to him.[54] Fascinated by his mission to invent machines that thought like humans, he transformed himself into a human who thought

45 Cf. Lee 2019, p. 226. Cf. also: Harari, Yuval Noah: The Rise of the Useless Class. 24/02 (2017). In: Ideas.Ted.Com, https://ideas.ted.com/the-rise-of-the-useless-class/ (November 13, 2021).

46 Cf. O'Neil 2017, pp. 171–172; pp. 177–178.

47 Cf. Lee 2019, p. 105.

48 Cf. Akremi 2016, p. 371.

49 Cf. ibid., p. 411.

50 Cf. ibid., p. 92.

51 Cf. Bainbridge, Lisanne: Ironies of Automation. In: Automatica, Vol. 19, №. 6, (Oxford 1983), https://ckrybus.com/static/papers/Bainbridge_1983_Automatica.pdf (November 13, 2021).

52 Cf. Lee 2019, p. 229.

53 Cf. ibid., pp. 243–244.

54 Cf. ibid., p. 230.

like a machine.[55] Determined by algorithms, Puppet Identity is in danger of evolving into a veritable "machine identity".[56]

Within classic dystopias, the individual is almost completely absorbed into a collective. Accordingly, human characters often have no name, but are designated by a sequence of numbers ("THX 1138" [1971]) or a series name ("Logan's Run" [1976], "The Island", [2005]). Feelings, creativity and empathy are often considered a threat here and are suppressed by means of sedatives ("THX 1138", "Equilibrium" [2002]).[57]

The situation is different for now emerging Puppet Identity: Thus it wants to appear (self-)optimized and en vogue, it must necessarily seem happy, beautiful and creative for this purpose.[58] In a paradoxical adaptation, Puppet Identity wants to display self-determined individuality through creative life design—and thus acts in conformity with the demands made on it.

Now that we have an idea of what an algorithm-"obedient" Puppet Identity resembles, we will move on to the four disobedient identities: E-pimetheus, Phantom, E-xistentialist, and Dice Man.

55 Cf. ibid.

56 Cf. Akremi 2016, p. 496.

57 Cf. Akremi 2016, p. 219. In Zamyatin's novel "We" creativity is seen as the ultimate threat for the state, therefore the citizens are urged to undergo a specific brain surgery to remove it. Cf. ibid., p. 93.

58 That creativity has now become a general social imperative is evidenced by Andreas Reckwitz's study "Die Erfindung der Kreativität", Frankfurt 2012.

E-pimetheus

Will the narcissism of mankind have to face a fourth severe blow?[59] After the—according to Freud[60]—1. cosmological blow accompanying Copernicus, that the earth is not the centre of the universe, the 2. biological blow following Darwin, that man emerged from the animal and the 3. psychological blow, that human action is largely determined by his unconscious, the 4. technological blow would be that tools created by man outperform their creator.[61]

The ongoing discourse on the growing influence of algorithms currently focuses on the competition between humankind and machine. The accelerating race in the real world is reflected in fictional imagery that often leads to a martial vanishing point: Human protagonists battle representatives of the machine sphere, e.g. anthropomorphic or shape-altering "Terminator" androids or intelligent computer programs that deceive humans by an illusionistic cyberspace to enslave them ("The Matrix" [1999]). Sometimes, this battle is fought in a more subtle way, for instance when android Ava (Alicia Vikander) in "Ex Machina" (2005) verbally manipulates her human counterpart.

Due to the aforementioned fourth severe blow, it is not surprising that humans empathize with their machines and imagine how their humiliated slaves ("Blade Runner" [1982], "I, Robot" [2004], "Westworld" [1973]) rise up, replace them ("A. I." [2001], "The Stepford Wives" [1975]), turn against them ("Terminator" series)—and take over as machine dictators

59 Cf. also: Zweig 2019, p. 269.

60 Cf. Freud, Sigmund: Eine Schwierigkeit der Psychoanalyse, 1917. In: GW, Vol. 12., Frankfurt 1984, pp. 1–12.

61 Chess computer Deep Blue already defeated the world's best chess player Kasparov in 1997, IBM computer Watson won the quiz "Jeopardy!" against the champions Rutter and Jennings in 2011 (cf. Schaar 2015, p. 50) and AlphaGo overcame the Chinese professional Go player Ke Jie in 2017 (cf. Lee 2019, p. 17).

("Alphaville" [1965], "Colossus", "The Matrix", "I, Robot"). Here, strangely enough, man dreams up his own submission, according to Eva Horn even his annihilation.[62] Apparently, because, as Akremi points out, he has caused his own dehumanization by himself.[63] The machines thus act as an avenging nemesis for human transgressions.

The characters that compete with intelligent machines can be condensed to the first ideal-typic identity concept called E-pimetheus. This first identity type is written with a hyphen to signal that the mythical character (Epimetheus [ˈΕπιμηθεύς]) has been transferred to the electrified era of digital transformation. Even if the original model did not belong to humans, but to the Titans, its type is nevertheless intended here to characterise humans. And although its mythical origin was male, here E-pimetheus nevertheless represents a concept of identity independent of gender.

Its antique archetype was enchanted by Pandora—an artificial creation of Zeus—, opened her box that became proverbial, releasing all conceivable misfortune into the world. According to its descriptive name it is "one who thinks afterwards", which is understood here that only in retrospect it realises what kind of mischief it has (co-)caused.

It is a primal pattern of numerous science fiction plots that man develops a technology, is bewitched by its possibilities, but then, by its means, brings forth disaster. Afterwards, man seeks to humbly conquer the spirits he has called upon. Therefore, it is no coincidence that mythical Pandora is actualised in early science fiction cinema, appearing as the "false Maria" (Brigitte Helm), a gynoid, in Fritz Lang's "Metropolis" (1927).[64]

E-pimetheus acts as a memorial not to be overwhelmed by the possibilities and outward appearance of elegant new technologies, but rather to "think ahead" so that disaster does not occur in the first place. And E-pimetheus shall convince us that humanity can learn from its failures. It is calling for a rational and moral approach to innovations, a reflection on its values.

But as it is the "one who thinks afterwards", E-pimetheus also stands for those technophobes who act excessively for fear of disaster. E-pimetheus tends to take an overly martial approach to its opponents: It wants to turn

62 Cf. Horn, Eva: Zukunft als Katastrophe, Frankfurt 2014, p. 10.

63 Cf. Akremi 2016, p. 579.

64 A contemporary incarnation of "seduction by technology" can be seen in K's (Ryan Gosling) holographic AI girlfriend Joi (Anna de Armas), who appears in "Blade Runner 2049" (2017): It is never sure if she has a free will and loves K or if she is a kind of customized filter bubble/echo chamber, telling him only what he wants to hear.

them off, unplug, destroy and burn them, and may even threaten to wipe out technological achievements of centuries—as "Snake" Plissken (Kurt Russel) does with the words "Welcome to the Human Race" at the end of "Escape from L.A." (1996).

E-pimetheus' black-and-white thinking is a significant problem in our high-tech age.[65] Fry points out that we tend to trust algorithms too much, but as soon as we know that they can make mistakes, we overreact, no longer rely on them at all—a behavior for which researchers have coined the term algorithm aversion.[66]

But, if all efforts of man to compete with his machines were to be in vain, what would remain to him? He could at least try to hide from their detection range. Which leads us to the next ideal type.

Phantom

From all those characters who try to elude surveillance and manipulation—whistleblowers, activists, hackers, spies or criminals[67]—the identity concept of Phantom can be distilled, its intention is to become invisible to monitoring algorithms.

According to Peter Schaar, anonymity is often equated with irresponsibility: Those who do not disclose their identity are presumably intending to cheat or commit crimes.[68] And indeed, cybercrime and -bullying are unthinkable without anonymity. Which is why the demand for a kind of ban on mummery in virtual space seems understand-

65 Cf. Fry 2019, p. 37. Philosopher Rebekka Reinhard thinks in a similar direction. However, she believes the problem is that our thinking is getting successively alike the binary information processing of computers. Cf. Reinhard, Rebekka: Wach denken: Für einen zeitgemäßen Vernunftgebrauch, Hamburg 2020.

66 Cf. Ibid., p. 36.

67 But also from unknown-known celebrities like Thomas Pynchon, The Residents, Martin Margiela or Banksy.

68 Cf. Schaar 2015, p. 182.

able.[69] However, when almost every citizen on earth is tracked and analyzed by algorithms, the desire for privacy seems equally reasonable.

Subscribing to newsletters, filling out a warranty card, making search queries—personal data is always being harvested and sold, e.g. in the format of clickstreams—the path taken on a website—and geo-tags—geographic location details of the user[70]—in some cases even complete browser histories.[71]

Data brokers like Palantir, Acxiom, Corelogic, Datalogix, and eBureau[72] combine all this data, link it, and create comprehensive user profiles: Name, date of birth, religion, vacation habits, where and when you used your credit card, whether you participate in gambling, health restrictions, what medications you take, whether you had an abortion, whether your parents are divorced, whether you are a quick addict, whether you have been raped, how you feel about firearms, your outwardly presented sexual orientation, your actual sexual orientation, and how credulous you are.[73] Fry summarizes: In thousands of categories and files on secret servers, thousands of details are stored just about every one of us.[74]

Understandably, Phantom wants to protect itself from this access, tries to produce as little accessible data as possible or disinform through a plethora of false information. Respectively, Phantom sometimes deceives its pursuers by means of identity theft or doubles. Privacy activists who seek to restrict algorithmic access to personal data by means of political influence can also be subordinated to the Phantom identity.

Given that automated facial recognition procedures threaten anonymity—and that more and more personalized biometric information is available or can be gleaned from photographs[75], it is not surprising that it is typical for Phantom to mask itself. So, paradigmatic for this identity type are masks and disguises, also technical voice changer. The Guy Fawkes mask of the freedom fighter V (Hugo Weaving) from "V for Vendetta" (2005), which is now used by the "Occupy" movement and the hacker collective "Anonymous", has become

69 Cf. ibid.
70 Cf. O'Neil 2019, p. 197.
71 Cf. Fry 2019, p. 46.
72 Cf. ibid.
73 Cf. ibid., p. 47.
74 Cf. ibid.
75 Cf. Schaar 2015, pp. 185–186.

iconic.[76] But it's not only its face that Phantom's identity concept shrouds, but its hands as well. For now it has become possible to read fingerprints from a high-resolution photograph taken from a distance and to compare them with reference files.[77]

In Cyberspace, Avatars belonging to the identity type Phantom are mostly also in disguise ("Who Am I", [2014]), which shall signal the viewer that software is hiding the owner's identity.[78] Nevertheless, the identity of the user can be inferred from the content of the communication and from technical parameters of the hardware and software used, which is why Phantom encrypts or encodes its communication or avoids statements that allow such inferences to be made.[79]

That its virtual activities have real-world implications becomes clear when Phantom also tricks, deceives, and sometimes even lies in the empirical world (like Moritz (Maximilian Mundt) in "How to Sell Drugs Online (Fast)", since 2019), so that its identity is not revealed even when it literally acts unmasked.

Phantom exerts security precautions against surveillance not only by software but also by the circumspect handling of hardware: "Snowden" (2016) puts mobile phones into the microwave, covers the webcam lens of his notebook. Robert Dean (Will Smith), who has become the "Enemy of the State" (1998), speaks his mentor Brill (Gene Hackman) in a Faraday cage, which is supposed to prevent the interception of sensitive data.

In a figurative sense, the latter situation represents that the Phantom identity temporarily (as a digital detox) or even completely denies access to the Internet, as Newport promotes in his book on "Digital Minimalism"[80], just as the loosely organized Attention Resistance Movement.[81]

76 Contemporary artists like Sterling Crispin, Leonardo Selvaggio, and Zach Blas have developed masks that especially defy machine recognition. The works of Ceren Paydas and Adam Harvey are also intended to outsmart algorithmic facial recognition.

77 Cf. Schaar 2015, p. 186.

78 Cf. ibid. One of the best-known tools for this purpose is the TOR project (The Onion Router), sponsored by the U.S. military and appreciated by the hacker community, which covers the user's tracks by redirecting his or her data packets via several servers distributed around the world.

79 Cf. ibid.

80 Cf. Newport, Cal: Digital Minimalism. Choosing a Focused Life in a Noisy World, New York 2019.

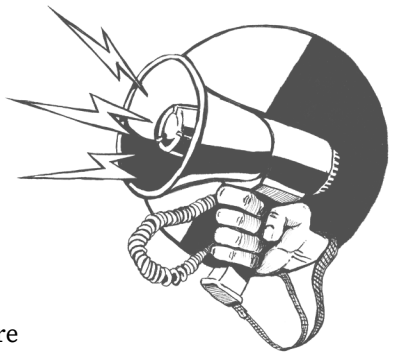
81 Cf. Reiff, Charlotte: Attention Resistance (Webpage), Vienna, https://www.attention-resistance.com/ (November 13, 2021).

According to its caution, Phantom tends to paranoia—impressively illustrated in the last scene of "The Conversation" (1974), in which surveillance specialist Harry Caul (Gene Hackman) destroys his flat room in search of a hidden microphone.

While Phantom wants to become indetectable to its pursuers, the next identity concept takes a diametrically opposite approach.

E-xistentialist

In the identity concept of the E-xistentialist—again, the spelling is supposed to mark the projection of this concept into the digital age—those personality types are merged, who are aware of the algorithmic apparatus, but do not want to surrender to its manipulating influence.



Within audio-visual portraits of whistleblowers and activists (e.g. "The Fifth Estate" [2013]), but also of hackers and criminals, there are always culminating points of action where their identity is revealed, and they must take a stand on their agenda.

Like its philosophical role models (Sartre, de Beauvoir), the e-xistentialist identity concept pursues a radical idea of freedom and a self-imposed mission, which is always also an ethical one. If this idea of freedom and its mission cannot be reconciled with the respective algorithmic regime, it remains true and stands for what it represents.

From Sartre, E-xistentialist adopts the notion that existence precedes essence[82], by which is meant that it is one's choices and acts alone that shape identity, not primarily ideas. And a large part of an individual's actions is now digitally preserved from oblivion. Moreover, since many of the acts are

82 French: "l'existence précède l'essence." Cf. Sartre, Jean-Paul: Existentialism Is a Humanism. In: Kaufman, Walter (Ed.): Existentialism: from Dostoevsky to Sartre, New York 1989, https://www.marxists.org/reference/archive/sartre/works/exist/sartre.htm (November 13, 2021).

publicly viewable, responsibility for those very deeds becomes an obligation. In view of its finiteness—and nowadays also: in view of enormously increased possibilities of choice—it must undertake its decisions in high uncertainty. And it must stand by his decisions and actions.

E-xistentialist attempts to question traditional ideas and to acquire one's own insights via in-depth observation of phenomena—in the manner of an epoché (ἐποχή), as Edmund Husserl would have called this "suspension of judgment".[83] The choice of the red pill by Neo (Keano Reeves) in "The Matrix" has become a paradigmatic image for the search for knowledge and the discarding of deception. But: Existentialists were often criticized that their insights are subjective in nature[84]—which is illustrated in film, for example, by the visualized (inner) worlds of "The Cell" (2000) and "Inception" (2010).

Due to the subjective character of this identity concept, caution is advised, because: Whether the E-xistentialist's approach can be sustainable in an algorithmical environment, depends on the respective insight into algorithms' modes of operation. For studies have shown—as explained above—that target persons are often not even aware of their manipulations. Consequently, the concept of freedom pursued by E-xistentialist is first a goal to be realised. Without insight into the algorithmic possibilities of influence, E-xistentialist falls short of its own ambition.

That E-xistentialist can be blind to defining conditions (such as algorithms) is evident, for example, in the fact that Sartre demanded that humans not acknowledge certain facts (e.g. gender, skin colour) but transcend them in their actions, and that he focused strongly on the individual. The thoughts that overcoming formative conditions is sometimes impossible and that our freedom also touches that of our fellow human beings were then important driving forces for Simone de Beauvoir's works, especially for her examination of the "The Second Sex" (1949).

Even if this e-xistentialist idea of freedom is not being realised, the emergence of the ideal type is evident in all those who openly and loudly take

83 Cf. Wang, Shin-Yun: Die Methode der Epoché in der Phänomenologie Husserls, Freiburg 2004, p. 1, https://freidok.uni-freiburg.de/fedora/objects/freidok:1688/datastreams/FILE1/content (November 13, 2021).

84 To be precise: Whereby "Heidegger [...] denies that the categories of subject and object characterize our most basic way of encountering entities. He maintains, however, that they apply to a derivative kind of encounter." (Wheeler, Martin: Martin Heidegger. In: E. Zalta [ed.]: Stanford Encyclopedia of Philosophy 12/10 [2011]), https://plato.stanford.edu/entries/heidegger/ (November 13, 2021).

dubious positions online and in the empirical world, regardless of whether it brings them social exclusion.

Dice Man

The identity concept Dice Man does not, as one might think, compress those characters who hack gambling systems or outwit their operators, as they appear in "The Sting" (1973), "Revolver" (2005) or "21" (2008).[85] Those characters who fight algorithmic systems by finding and exploiting their flaws are subordinated to E-pimetheus in our taxonomy, since it is this identity concept that competitively opposes algorithms and, of course, also uses its (mathematical) intelligence to do so.

The template for the identity concept Dice Man is derived from Luke Rhinehart's (or George Cockroft's) cult novel "The Dice Man" (1971), in which the first-person narrator lets the dice decide on his next steps. For this purpose he always writes down six things he could do, then rolls the dice. And what the dice indicates, he must inevitably do.[86]

Shaped here as a concept of identity, the form of Dice Man is to apply to each gender type. This personality model can be understood as a radicalisation of the literary character of the flâneur, who allows himself to drift aimlessly on his walks[87]—and has his contemporary interpretation with Niko (Tom Schilling) from "Oh Boy" (2012). Dice Man leaves its fate to chance, plays a game of vabanque, and considers itself a participant in a social experiment, as is the case with Karen (Bodil Jørgenson) in Lars von Trier's "Idioterne" (1997).

85 From this genre, "21" would certainly be the most interesting for our purposes. For here it is a mathematics professor (Kevin Spacey) who develops his winning strategies in "Black Jack" using scientific methods. The film was based on a non-fiction book by Mezrich, Ben: Bringing Down The House, London 2003.

86 Cf. Rhinehart, Luke: Der Würfler, Halle 2011, p. 120.

87 Cf. Neumeyer, Harald: Der Flaneur: Konzeptionen der Moderne, Würzburg 1999.

By completely submitting to the dictates of the dice, Rhinehart's Dice Man, a bored psychologist, originally wants to escape ennui and find out how people can be changed for the better.[88] To this end, he wants to experiment with social roles to destroy his ego,[89] to completely give up his identity, which is only conceived to be fixed. And indeed, Rhinehart's Dice Man becomes less and less tangible and classifiable; he even speaks of a self-generated personality split.[90]

Rhinehart's alter ego then develops "dice therapy"[91] in order to turn other people into "humans of chance", into "unpredictable individuals"[92], into "volatile, unreliable, progressively schizoid personalities"[93], so that they would become free—above all from other people's and their own role expectations.

If we apply this identity concept to the current and future environment dominated by algorithms, it becomes clear that the integration of chance enables the Dice Man to become unpredictable for algorithmic measurement.

Paradoxically, such a complete submission to chance is not experienced as subjugation but as liberation, as an escape from routine. The identity concept of the Dice Man is preceded by a change within the understanding of chance: If chance was once seen as an adversary that can disrupt one's plans, today—in a context of saturated markets and satisfied needs—it is seen as an important stimulus for innovation, so that taking risks appears to be a virtue, since chance always holds opportunities.

Conclusions and Prospects

Social models of disobedience to algorithms can be drawn from numerous characters that appear in films, series and literature. When asking whether they can advise us, we must keep in mind that all these figures stem from fictional universes that not equal the empirical world. But also to be

88 Cf. Rhinehart 2011, p. 160.
89 Cf. ibid., p. 113, p. 227.
90 Cf. ibid., p. 238.
91 Cf. ibid., p. 178.
92 Cf. ibid., p. 151.
93 Cf. ibid., p. 248.

considered is that notions of algorithmic systems—the "colonization of the future" has already been mentioned—are contaminated by the fictional.

Several dystopians mentioned above seem to misjudge the nature of algorithmic systems, like Puppet Identity they impute intentionality to them, and tend to deify them. So, another identity type appears to be essential: The Enlightener, who could write a "Critique of Algorithmic Reason". Many of the authors cited here represent this identity type.[94] Zweig insists that Artificial Intelligence is a misnomer in the eyes of most of the scientific community;[95] it is a promotional term for powerful statistical systems that are supposed to be granted a certain magic by an appealing name.[96] Fry agrees that it would be more useful to think of the current achievements as a revolution in computational statistics, not intelligence.[97]

One has to always be aware that what currently goes by the term artificial intelligence is basically not comparable to human intelligence[98], that it merely mimics cognitive processes.[99] This circumstance is rarely illuminated in fiction, for example when a robot (Arnold Schwarzenegger) clumsily shoots an enemy's leg on the order to stop killing ("Terminator 2—Judgment Day" [1991]) or when the programming of the former police robot "Chappie" (2015) is deleted and a few criminals try to educate him to become a gangster. In doing so his gradual learning process is portrayed, which is always accompanied by mistakes.

94 Schaar, Zweig, O'Neil and Fry e.g. do so by pointing out that algorithmic systems only prove correlations (cf. Zweig: 2019, 194) and thus can be subject to erroneous conclusions after the pattern post/cum hoc ergo propter hoc and that they can amplify prejudices and discriminate people (cf. Zweig 2019, p. 149). The quality of algorithmic decisions depends on the database, the control of incoming data, the specific modelling of the social world and the research questions—all these parameters have to be handled sensitively. It should not be understated here, however, that algorithms can also improve the social process. After all, human decision-making processes can also be biased and flawed. Fry points out that there are not exactly many examples of perfectly fair, equitable systems even without the involvement of algorithms (cf. Fry 2019, p. 235).

95 Cf. Zweig 2019, p. 126.

96 Cf. ibid., p. 267.

97 Cf. Fry 2019, p. 25.

98 Cf. Zweig 2019, p. 268.

99 Cf. ibid., p. 129.

There is controversy among researchers as to whether so-called AGI will ever be able to outperform human intelligence in all respects.[100] Lee believes that it will take decades, if not centuries, to develop a superhuman intelligence, and that it is possible that humanity will never succeed in creating one.[101] Fry states that at present we are still far from creating even an intelligence on the level of a hedgehog.[102]

Enlightener looks forward to a future where we no longer view algorithms as objective masters but treat them like any other source of power—questioning their decisions, demanding information about who their beneficiary is, and holding them accountable for their mistakes.[103] So, Enlightener's primal task is to question the alleged infallibility of the so-called artificial intelligence. Because there are just still numerous areas, which algorithms do not master—like examining questions of justice.[104] Enlightener investigates the results and decisions of algorithmic systems, thus reconstructing their modelling to analyze how just they are[105]—via programming software bots, which pretend online to be different kinds of persons—rich, poor, white, BIPoC, young, old, male, female or mentally impaired. Algorithms' reactions allow to evaluate how biased they are.[106] Fry argues that people should be given the right to veto decisions made by algorithms. Unlike algorithms, humans sense how serious the consequences of their decisions are.[107] Most certainly, the benefits of technology should be used because: Algorithms do not tire, as pathologists they rarely misdiagnose. For this, however, man and machine should work in partnership.[108]

Enlightener, just as many of the cited authors, spurs us on and take us to task. Lee explains that we are not experiencing the AI revolution as

100 Cf. Zweig 2019, p. 269.

101 Cf. Lee 2019, p. 190.

102 Cf. Fry 2019, pp. 25–26. In this context, she refers to the "Openworm" research project, which aims to simulate the brain of a worm. Cf. http://openworm.org (November 13, 2021).

103 Cf. ibid., p. 237.

104 Cf. O'Neil 2017, p. 211.

105 Cf. ibid., pp. 281–282.

106 Cf. ibid, pp. 285–286. Such analyses are being conducted by the "Web Transparency and Accountability Project" based at Princeton University, similar approaches exist at Carnegie Mellon University and MIT. Cf. ibid., p. 285.

107 Cf. Fry 2019, p. 33.

108 Cf. ibid., p. 236.

passive spectators, but as its authors.[109] Zweig calls us to reflect on what we think are good choices and how a machine can help us make them. For ethics come into the machine only through man.[110] In view of the radical changes to be expected because of automation and robotization, Lee argues that we need to move away from a mentality that regards people as variables in a giant productivity optimization algorithm. To this end, socially productive work should be rewarded in the same way as economically productive activities in the future.[111] This means: No matter in which of the mentioned identity types we find ourselves or whose strategies we want to use—we must decide consciously to improve the situation, if necessary: disobey. To this end, fiction can also make its contribution: By reminding us what values are worth following, by warning us what catastrophes are looming, by asking wise questions and questioning overly simplistic answers, stereotypes and imaginations.

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109 Cf. Lee 2019, p. 296.

110 Cf. Zweig 2019, p. 286.

111 Cf. Lee 2019, pp. 259–260.

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Illustrations

Puppet Identity, E-pimetheus, Phantom, E-xistentialist, Dice Man — courtesy of Bernd Friedrich Schon