the bias in algorithms.

who wins ?
who loses ?
who pays ?

trabalho realizado por marta azevedo para a cadeira de projeto I do mestrado de design de comunicação da fbaul 2023

who wins?

who loses?

who pays?

what's next?

abstract.

This project aims to understand the way we consume information online and the way it is presented to us, revealing the role of personalization algorithms in this process.

By sharing an incredible amount of personal information online, in the name of freedom of choice and freedom of expression, individuals become vulnerable to psychopolitical control and behavioral prediction. The concept of "reality" is inevitably affected and becomes blurred, given the biased way in which information is filtered and targeted.

The project addresses this issue from 4 points of view: Who wins? with the use of our data; Who loses? with the way artificial intelligence uses our information; Who pays? or suffers the consequences of digital colonialism and the bias embedded in machine learning systems; What's next? or what are the predictable effects of these developments on our way of being and communicating, or perceiving reality.

who wins?

1. the information regime.

1.1 the power in knowledge.
1.2 internet profilling.
1.3 consumer cattle.

the power in knowledge.

power depends not on the possession of the means of production but on access to information that is used for psychopolitical surveillance and the control and prediction of behaviour.

Byung-Chul Han (2022). "Infrocracy: Digitalization and the Crisis of Democracy".

With the term 'information regime' I refer to a form of domination in which information and its processing by algorithms and artificial intelligence have a decisive influence on social, economic and political processes. Under such a regime, what is exploited is information and data rather than bodies and energies, as is the case under disciplinary regimes. Power depends not on the possession of the means of production but on access to information that is used for psychopolitical surveillance and the control and prediction of behaviour. Information regimes are tied to information capitalism, which develops into surveillance capitalism and reduces human beings to consumer cattle that provide data. (…)

Information capitalism uses communication and interconnectedness, rendering obsolete the disciplinary techniques of spatial isolation, the strict regulation of work, and physical training. The ideal of the information regime is not 'docility', with the compliance and obedience it implies. The submissive subject of the information regime is neither docile nor obedient. The information regime assumes rather that its subject is free, authentic and creative. This subject produces itself and performs itself. (…) Information capitalism appropriates neoliberal technologies of power.

Where the power technologies of the disciplinary regime worked with compulsion and prohibition, the neoliberal ones work with positive incentives. They exploit freedom instead of repressing it. They control our will at an unconscious level instead of violently breaking it. Repressive disciplinary power gives way to smart power, a power that does not give orders but whispers, that does not command but nudges. In other words, it pokes us with subtle tools that influence our behaviour. (…)

The rule of the information regime is hidden because it is fully incorporated into everyday life. It hides behind the friendliness of social media, the convenience of search engines, the soothing voices of the virtual assistants and the courteous servility of smart apps. The smartphone is in fact an efficient informant that exposes us to 24/7 surveillance. The smart home turns a whole apartment into a digital prison in which our daily lives are recorded minute by minute. The smart vacuum cleaner may save us from some tedious cleaning, but it also maps our home. The smart bed and its networked sensors continue the surveillance while we sleep. Surveillance creeps into daily life by way of convenience. In the digital prison, this smart comfort zone, there is no resistance to the ruling regime. The like prevents any thought of revolution.

Psychometrics, also called psychographics, is a data-driven method for establishing a personality profile. When it comes to predicting a person's behaviour, psychometric profiling outperforms even that person's friends or partner. Given sufficient data, it is even possible to generate information that goes beyond what we believe we know about ourselves. A smartphone is a psychometric recording device that we feed daily, even hourly, with data. It makes possible the precise calculation of its user's personality. All the disciplinary regime had at its disposal was demographic information, which made possible its biopolitics. The information regime, by contrast, has access to psychographic information, which it uses for its psychopolitics.

Psychometrics is an ideal tool for psychopolitical marketing in politics.

So-called micro-targeting makes use of psychometric profiling. Voters are sent personalized advertisements, based on their psychograms, via social media. Like consumer behaviour, voting behaviour is subjected to unconscious influences. (…) Micro-targeting does not inform voters about a party's political programme. Instead, voters receive manipulative electoral advertisements, and often fake news, based on their psychograms. Thousands of variations of an advertisement are tested for their efficiency. These psychometrically optimized dark ads represent a danger to democracy. (…) Dark ads contribute to the division and polarization of society and poison the discursive atmosphere. They are invisible to the public and thereby unhinge one of the fundamental principles of democracy: society's self-observation.

given sufficient data, it is even possible to generate information that goes beyond what we believe we know about ourselves.

Byung-Chul Han (2022). "Infrocracy: Digitalization and the Crisis of Democracy".

internet profilling.

How else can we explain the election of Trump? I recently watched a BBC documentary on the Silicon Valley oligarchs who hold sovereignty over our online lives (and, increasingly, our offline lives too). The most chilling fact to emerge from this investigation was that at the control centre of the Trump digital election campaign, in an anonymous building in San Antonio, Texas, employees of Facebook, Google and YouTube were seconded to make the 'delivery system' function using their online platforms. (…) What does it mean to the future of democracy, to the future of government? A senior official from the now-abandoned control centre was interviewed. In a moment of unexpected candour, she offered this alarming observation: 'We wouldn't have won it without Facebook'.

The type of control offered by Mark Zuckerberg's enterprise (which the designer Paula Scher calls 'the new suburbia') has been the wet dream of dictators for millennia. It's now possible, via Internet connectivity and smart algorithms, to control thought - or at least to control emotion. 'Internet profiling' - to use the benign-sounding terminology of Silicon Valley - means that facebook can manipulate emotion and this affect decision-making. Individual psychology can be altered merely by sending Facebook users positive or negative messages. What makes it worse is that it is facilitated by us, the users of the Internet. No force is involved. No coercion is needed. Instead, we give our consent the second we step into the digital terrain of the World Wide Web. Here - take everything, we say. It's yours. Go make trillions of dollars with it. Go win elections with it!

Adrian Shaughnessy (2018). "Weightless Data: The New Heavy Freight"

the more data we generate and the more intensely we communicate, the more efficient surveillance becomes. (...) big data and artificial intelligence enable the information regime to influence our behaviour at a level that lies below the threshold of consciousness.

consumer cattle.

Byung-Chul Han (2022). "Infrocracy: Digitalization and the Crisis of Democracy".

Digital information technology turns communication into surveillance. The more data we generate and the more intensely we communicate, the more efficient surveillance becomes. The mobile phone is a surveillance and subjugation apparatus that exploits freedom and communication. Under the information regime, people do not feel that they are under surveillance. They feel free. Paradoxically, it is the feeling of freedom that secures the rule of the regime. This is the fundamental difference between the information and the disciplinary regimes. When freedom and surveillance coincide, domination becomes complete.

The information regime has no need for disciplinary pressure. It does not impose panoptic visibility on people. People expose themselves out of an inner need – without any external compulsion. People produce themselves, that is, play to the gallery. The French verb se produire means to present oneself. Where the disciplinary regime imposes visibility, the information regime relies on the fact that people seek to be visible. They voluntarily enter the limelight. Whereas the inmates of the disciplinary panopticon try to avoid visibility, the subjects of the information regime actually desire it.

The information regime pursues its policies in the name of transparency. To think of transparency exclusively in terms of institutions and individuals making information publicly available is to miss its true significance. Transparency is the systemic compulsion of the information regime. The imperative of transparency is: everything has to be available as information. Transparency and information are synonyms. The information society is a transparency society. The imperative of transparency is that information must circulate freely. It is not people but information that is truly free. The paradox of the information society is that people are imprisoned by information. By communicating and producing information, they shackle themselves. The digital prison is transparent. (...)

Whereas Big Brother's telescreen is untouchable, the smart touchscreen makes everything available and consumable. (...) Under the information regime, being free does not mean being able to act but being able to click, like and post.

who loses?

2. lives on discount.

2.1 human lab rats.
2.2 ai = manipulation.

Mug shots form part of the archive that is used to test facial-recognition algorithms. (…).

Neither the people depicted in the photographs nor their families have any say about how these images are used and likely have no idea that they are part of the test beds of AI. The subjects of the mug shots are rarely considered, and few engineers will ever look at them closely. (...) they exist purely to "refine tools, techniques, and procedures for face recognition (...) many people show signs of enduring violence, such as scars, bruises, and bandages. But the document concludes that these signs are "difficult to interpret due to the lack of ground truth for comparison with a 'clean' sample." These people are not seen so much as individuals but as part of a shared technical resource—just another data component of the Facial Recognition Verification Testing program, the gold standard for the field.

(...) mug shot databases are particularly disturbing because they represent the model of what was to come. It's not just the overwhelming pathos of the images themselves. Nor is it solely the invasion of privacy they represent, since suspects and prisoners have no right to refuse being photographed. It's that the NIST databases foreshadow the emergence of a logic that has now thoroughly pervaded the tech sector: the unswerving belief that everything is data and is there for the taking. It doesn't matter where a photograph was taken or whether it reflects a moment of vulnerability or pain or if it represents a form of shaming the subject. It has become so normalized across the industry to take and use whatever is available that few stop to question the underlying politics. (…)

The context—and exertion of power—that these images represent is considered irrelevant because they no longer exist as distinct things unto themselves. They are not seen to carry meanings or ethical weight as images of individual people or as representations of structural power in the carceral system. The personal, the social, and the political meanings are all imagined to be neutralized. I argue this represents a shift from image to infrastructure, where the meaning or care that might be given to the image of an individual person, or the context behind a scene, is presumed to be erased at the moment it becomes part of an aggregate mass that will drive a broader system. It is all treated as data to be run through functions, material to be ingested to improve technical performance. This is a core premise in the ideology of data extraction.

Machine learning systems are trained on images like these every day—images that were taken from the internet or from state institutions without context and without consent. They are anything but neutral. They represent personal histories, structural inequities, and all the injustices that have accompanied the legacies of policing and prison systems.

Kate Crawford (2013). "Atlas of AI".

ai systems are built to see and intervene in the world in ways that primarily benefit the states, institutions, and corporations that they serve.

human lab rats.

A cylinder sits in a room. It is impassive, smooth, simple and small. It stands 14.8cm high, with a single blue-green circular light that traces around its upper rim. It is silently attending. A woman walks into the room, carrying a sleeping child in her arms, and she addresses the cylinder. 'Alexa, turn on the hall lights?' The cylinder springs into life. 'OK.' The room lights up. The woman makes a faint nodding gesture, and carries the child upstairs.

This is an interaction with Amazon's Echo device. A brief interrogative conversation – a short question and a response – is the most common form of engagement with this consumer voice-enabled AI device. But in this fleeting moment of interaction, a vast matrix of capacities is invoked: interlaced chains of resource extraction, human labour and algorithmic processing across networks of mining, logistics, distribution, processing, prediction and optimization. The scale of this system is almost beyond human imagining. (...)

The device contains seven directional microphones, so the user can be heard at all times even when music is playing. The device comes in several styles, such as gunmetal grey or a basic beige, designed to either "blend in or stand out." But even the shiny design options maintain a kind of blankness: nothing will alert the owner to the vast network that subtends and drives its interactive capacities. The promotional video simply states that the range of things you can ask Alexa to do is always expanding. "Because Alexa is in the cloud, she is always getting smarter and adding new features."

How does this happen? Alexa is a disembodied voice that represents the human-AI interaction interface for an extraordinarily complex set of information processing layers. These layers are fed by constant tides: the flows of human voices being translated into text questions, which are used to query databases of potential answers, and the corresponding ebb of Alexa's replies.

For each response that Alexa gives, its effectiveness is inferred by what happens next: Is the same question uttered again? (Did the user feel heard?) Was the question reworded? (Did the user feel the question was understood?) Was there an action following the question? (Did the interaction result in a tracked response: a light turned on, a product purchased, a track played?). With each interaction, Alexa is training to hear better, to interpret more precisely, to trigger actions that map to the user's desires more accurately. That is the ideal of the form. What is required to make such an interaction work? Put simply: each small moment of convenience – be it answering a question, turning on a light, or playing a song – requires a vast planetary network, fueled by the extraction of non-renewable materials, labor, and data. The scale of resources required is many magnitudes greater than the energy and labor it would take a human to operate a household appliance or flick a switch.

with each interaction, Alexa is training to hear better, to interpret more precisely, to trigger actions that map to the user's desires more accurately.

ai = manipulation.

Kate Crawford and Vladan Joler (2018). "Anatomy of an AI System".

who pays?

3. weightless data.

3.1 exoticized minorities.
3.2 digital colonization.
3.3 the data gap.

The problem of the politics of knowledge in a globalised world is exacerbated by a 'not seeing' (…). It is basic to colonisation because the colonisers create a vacuum, an invisibility, where previously there had been people, language, culture and traditions around all kinds of social activities. If they are not invisibilised, they are exoticised, cultural forms appropriated, distorted and sold back to the 'natives' at a profit. Even the most 'domesticated' of social groups - women - have been exoticised by the sexualisation industries of pornography and prostitution through which they are then sold back to the society in which they live. These and other forms of exoticisation dispossess the oppressed of their dignity and humanity reducing both to commodities to be bought and sold. (…)

"Whatever is unnamed, undepicted in images, whatever is omitted from biography, censored in collections of letters, whatever is misnamed as something else, made difficult-to-come-by, whatever is buried in the memory by the collapse of meaning under an inadequate or lying language -this will become, not merely unspoken, but unspeakable."

Adrienne Rich is writing about the gaps and distortions in writing about and by lesbians, but her words apply also to any person or group or being that is marginalised or despised, for whatever reason. In the last few years, the mainstream publishing industry has picked up on the idea of diversity, but the trend is for a consumerist version of diversity: one blue, two green, one purple person within the larger group that is mainly white, male and mobile. (…) Betty Mclellan came up with the idea of 'fair speech'. In doing so, she is challenging the Patriarchal Universe of Discourse exemplified in the destructive power of 'anything goes speech' that allows hate speech - the vilification and subjection of people, especially when directed at others because of race or ethnicity, sex, class or caste, religion, sexual orientation or disability.

An analysis of fair speech must consider the effects of silencing. Censorship is not only the straightforward culling and banning of the words of writers and artists, and the imprisonment, torture or killing of those who utter rebellious words. It also ventures into the realm of social conditioning.

exoticized minorities.

exoticisation dispossess the oppressed of their dignity and humanity, reducing both to commodities to be bought and sold.

In Pornography and Silence, Susan Griffin makes the connection between the violence of pornography and women's silence. She argues that the silence is as much internal as external. This is also the case for colonised peoples in general. Judy Atkinson outlines the trauma inflicted on indigenous people, which is passed on from generation to generation. Those from the working class are familiar with similar kinds of transgenerational trauma, as are people marginalised by hatred (in a Christian-dominant world, Jews and Muslims have suffered this fate).

Susan Hawthorne (2018). "Bibliodiversity: The Politics of Knowledge and the Distribution of Ideas".

digital colonization.

access is more than simply having and using existing technology, rather it is having an infrastructure that is content neutral.

In an environment where nascent artificial intelligence Twitter bots can become white supremacists within hours, where auto-generated tags classify photos of African Americans as gorillas and where searching Google for "Latina lesbian" delivers only pornography, what exactly does a self-determined representation for any minority group look like online? (…)

In November of this year Mikaela Jade, a developer with Indigital Media, an Australian indigenous media company, was notified by Apple that her company's new app, Indigital Storytelling, had not been approved for inclusion in the iTunes store. The augmented reality app was designed to function within the space of indigenous cultural specificities by using the phone's camera to recognize sites of indigenous significance. When a user is in the presence of such a site, a video of an oral history with a community elder begins to play, providing the user with context-specific knowledge detailing the cultural importance of the place to the history of the community. The app functions even without access to the internet, an acknowledgment of the realities of technological barriers to access in remote areas. (…) This app concept follows from Indigital's mission to "ensure Indigenous People have access to developing cutting edge, safe, affordable, quality digital engagement that is appropriate to our social, cultural and economic needs." What reason did Apple have for denying the request, even after Google's iTunes counterpart for Android phones had launched the app to acclaim? According to Mikaela Jade, Apple found the app's usefulness to be "limited." After the press gave attention to the story, Apple reversed course and the app continues to be available for download.

This example is one of many in the larger story of colonial thinking as expressed through technological change, as well as one of the anti-colonial resistance responses of indigenous peoples around the world. The story speaks to the barriers to access to contemporary tools of communication that exist at multiple levels throughout the technological infrastructure, including those through which individuals access the internet. (…)

The internet is often perceived as connecting the world in such a way that renders one's physical location irrelevant, however Christian Sandvig neatly describes the contradiction this poses for indigenous peoples the world over: "The state of indigeneity, in contrast, is a continual assertion of place…" (…)

Indigenous communities today may have greater access to the physical technology and meaningful education in how to make use of it, but the barriers do not cease once indigenous-produced content is published the web. Unless the issues surrounding algorithm bias are addressed, little will have changed from this assessment made nearly 20 years ago. The rise of importance of algorithms that perform a gatekeeper role for information online in effect continues to build the same barriers to access that have plagued these communities under colonial structures. For this reason, the utility of the digital divide argument is limited because the business model of online visibility as represented through algorithmic decisions will always place subordinate cultures at a disadvantage. Access is more than simply having and using existing technology, rather it is having an infrastructure that is content neutral.

Melissa Gasparotto (2016). "Digital Colonization and Virtual Indigeneity: Indigenous Knowledge and Algorithm Bias".

the data gap.

when it comes to women of colour, disabled women, working-class women, the data is practically non-existent.

Most of recorded human history is one big data gap. (…)

Films, news, literature, science, city planning, economics. The stories we tell ourselves about our past, present and future. They are all marked – disfigured – by a female-shaped 'absent presence'. This is the gender data gap. (…).

They impact on women's lives every day. The impact can be relatively minor. Shivering in offices set to a male temperature norm, for example, or struggling to reach a top shelf set at a male height norm. Irritating, certainly. Unjust, undoubtedly.

But not life-threatening. Not like crashing in a car whose safety measures don't account for women's measurements. Not like having your heart attack go undiagnosed because your symptoms are deemed 'atypical'. For these women, the consequences of living in a world built around male data can be deadly.

One of the most important things to say about the gender data gap is that it is not generally malicious, or even deliberate. Quite the opposite. It is simply the product of a way of thinking that has been around for millennia and is therefore a kind of not thinking. A double not thinking, even: men go without saying, and women don't get said at all. Because when we say human, on the whole, we mean man. (…)

Artificial intelligence that helps doctors with diagnoses, that scans through CVs, even that conducts interviews with potential job applicants, is already common.

But AIs have been trained on data sets that are riddled with data gaps – and because algorithms are often protected as proprietary software, we can't even examine whether these gaps have been taken into account. (…).

Data is just another word for information, and information has many sources. Statistics are a kind of information, yes, but so is human experience. And so I will argue that when we are designing a world that is meant to work for everyone we need women in the room. If the people taking decisions that affect all of us are all white, able-bodied men (nine times out of ten from America), that too constitutes a data gap – in the same way that not collecting information on female bodies in medical research is a data gap.

And as I will show, failing to include the perspective of women is a huge driver of an unintended male bias that attempts (often in good faith) to pass itself off as 'gender neutral'. (…)

If there is a data gap for women overall (both because we don't collect the data in the first place and because when we do, we usually don't separate it by sex), when it comes to women of colour, disabled women, working-class women, the data is practically non-existent. Not simply because it isn't collected, but because it is not separated out from the male data – what is called 'sex-disaggregated data'. In statistics on representation from academic jobs to film roles, data is given for 'women' and 'ethnic minorities', with data for female ethnic minorities lost within each larger group.

Caroline Criado Perez (2019). "Invisible Woman: Data Bias in a World Designed for Men".

what's next?

4. new communica-tion era

4.1 distribution is power.
4.2 imaginary property.
4.3 we amuse ourselves to death.

There are now two parallel distribution systems: the digital version is free to use in most cases (or at least it appears to be); which is why it is so seductive; the other, the one with vans and trucks and roads, is not free. But materiality and a desire to own objects (furniture, clothes, gadgets, books) remains stubbornly impervious to digital billionaires who want us to live in a frictionless world in which everything flows through their networks, but in which they take zero responsibility for the impact of their delivery systems and their effects on the health, well-being and happiness of the citizenry.

Whichever way we look at it, distribution is power. Distribution is a control mechanism that governs everything, from the food we eat to the entertainment we consume. The more you control the method of distribution, the more power you accrue. We only have to look at the music business to see how control is determined by distribution. I designed record covers for many years, and had dealings with numerous record labels, large and small. The small ones - which were usually the ones making the most interesting music - were always at the mercy of distributors.

A failed distributor almost inevitably meant disaster for a tiny label. And so the Internet seemed to herald a utopian future for the little guy. Here was a low-cost way to get music into the hands of music fans around the world - from producer to consumer with a few clicks. Utopia!

Except, it hasn't worked out like that. Firstly, the Internet facilitated unpaid downloading, and the peer-to-peer exchange of audio files became the equivalent of a failed distributor. And now, paid-for streaming, of which I'm an avid user, has simply resulted in the cake getting smaller. Instead of control resting with cultural producers, it now rests with the new immaterial distributors - Spotify, Apple, Amazon, et ai. It seems that we have meekly exchanged one set of gatekeepers for another. Music may now be cheap, and labels may no longer be at the mercy of distributors with trucks and warehouses, but the only thing that has changed is that the control has shifted to the owners of online distribution systems. Vinyl discs may be enjoying a welcome resurgence, but not on a scale that can adequately fund the makers of music, or sustain the music industry (although this is not a bad thing in the eyes of some).

Adrian Shaughnessy (2018). "Weightless Data: The New Heavy Freight"

distribuition is power.

Books, as with frozen peas and other essentials of modern living, have to be distributed; this means a return to the realm of vans and trucks, with all their attendant problems: poorly paid drivers, congestion and harmful emissions. There are no easy answers to the question of distribution, or so it seems. (…)

The Internet is the first system to challenge the traditional distribution networks that control so much of our lives. And although it has been largely taken over by the oligarchs of Silicon Valley, every system, every regime, has within it the seeds of its own subversion and its own corruption.

instead of control resting with cultural producers, it now rests with the new immaterial distributors.

imaginary property.

postmodern economies have often been perceived as a funhouse where you can bet on anything, for, like in a hall of mirrors, reality is just the image of an image.

The difficulty in fully grasping today's property relations—conceived as increasingly immaterial—through traditional conceptions of selfhood and objecthood is generally acknowledged. It has almost become a truism that the proliferation of "new technologies" has come along with substantial reinterpretations of the meaning and the effects of ownership and control. (…).

The concept of "imaginary property" takes a different route. Rather than denouncing the private and therefore "privative" character of property while leaving the general abstract concept of property more or less intact—as is the case in the concept of Creative Commons—the focus has to be shifted to the very idea of property and its problems as such. (…).

Property as the mirror image of a self-owning self may no longer be reserved for the reciprocal production of a responsible subject in the legal realm of bourgeois society; instead the illusionary character of property is set free as a spectre, a ghostly force that seems to constantly mirror everything. Due to their endless mirror effects, postmodern economies have often been perceived as a funhouse where you can bet on anything, for, like in a hall of mirrors, reality is just the image of an image. (...)

In its simplest form, the problem that is at stake in imaginary property is articulated as the absence of the object that is owned. The immaterial, intangible expressions of a creative mind is an issue the moment when it starts to circulate and proliferate in an uncontrolled fashion, when it escapes traditional forms of arrest and becomes fugitive. (...)

In fact the concept of imaginary property presupposes no essential distinction between analog and digital, material and immaterial. Instead, it marks the intersection or collision of two vectorial lines, two modes whose crossover characterizes contemporary means of production. (…).

In the digital, networked economy, a copy (no matter whether it is text, sound, image) appears as a mirror image that is not isolated, but refers to another.

Traditional forms of ownership are applied to new types of digital imagery, while the seemingly immaterial character of production and networked distribution has long undermined the vulgar concept of property as a somewhat stable relationship between persons and objects. We might sense intuitively that things them-selves cannot be owned, only their social relationality. What one owns, when one owns, is always the imagined effcacy of an acclaimed ownership within a given social environment as long as the effects of that ownership remain subject to manipulations.

In order to make things ownable, to enforce a claim, things need to be turned into images. (…)

One has to forget that one can own things only by assigning or providing them with a self. (…) Property therefore is the appropriation of that activity as the self of the thing and not as the thing itself.

Florian Schneider (2013). "Imaginary Property".

In a mediacracy, politics submits to the logic of the mass media. The principle of amusement determines how political matters are conveyed and undermines rationality. (…). The highest priority is to provide entertainment, and this also becomes the priority in politics: efforts at gaining knowledge and being perceptive are removed by the business of distraction. As a consequence, we see a rapid decline of the human power of judgment. The business of distraction represents a clear threat: it makes people immature or keeps them in a state of immaturity. And it corrodes the social foundation of democracy. We amuse ourselves to death.

The news begins to take on the form of the story. The distinction between fiction and reality becomes blurred. (…).

Politics is reduced to a series of staged events in the mass media. (…). What counts in televised debates is not the quality of the argument but the performance. The speaking time for presidential candidates is severely limited. They change the way they speak. The candidate with the better self-presentation wins the election. Discourse degenerates into show business and commercial slogans. Political substance becomes less and less important. Politics is hollowed out, reduced to telecratic image-politics. (…)

Today, telescreens and television screens have been replaced by touchscreens. The smartphone is the new medium of domination. Under the information regime, people are no longer passive spectators who surrender to amusement. They are all active transmitters. They constantly produce and consume information. Communication has become a form of addiction and compulsion, and the frenzy of communication ensures that people remain in a new state of immaturity. The information regime's formula for domination is: we communicate ourselves to death. (…)

The democratic crisis begins at the cognitive level. Information is relevant only fleetingly. Because it lives off the 'appeal of surprise', information lacks temporal stability, and because of its temporal instability, it fragments our perception. It draws reality into a 'permanent frenzy of actuality'. It is not possible to linger on information. This makes the cognitive system restless. (…).

Because of its fleeting relevance, information pulverizes time. Time disintegrates into a mere sequence of point-like presences. In this respect, information differs from narration, which generates temporal continuity. Today, time is fragmented on every level. (…). The generally short-term nature of the information society is not conducive to democracy. Discourse is characterized by a temporality that is incompatible with accelerated, fragmented communication. Discourse is a time-intensive practice.

Rationality is also time-intensive. Rational decisions require a long-term perspective. They are based on reflections that extend beyond the present moment into both past and future. This temporal expansion characterizes rationality. In the information society, we simply do not have the time for rational action. The compulsion of accelerated communication deprives us of rationality. Under temporal pressure, we instead opt for intelligence. Intelligence has a totally different temporality. Intelligent action aims at short-term solutions and successes.

Byung-Chul Han (2022). "Infrocracy: Digitalization and the Crisis of Democracy".

we amuse ourselves to death.

the business of distraction represents a clear threat: it makes people immature, or keeps them in a state of immaturity. and it corrodes the social foundation of democracy.

Crawford, K. (2021). *Atlas of AI: Power, Politics, and the Planetary Costs of Artificial Intelligence* (pp. 88-89). New Haven, CT: Yale University Press.

Crawford, K. & Joler, V. (2018). Anatomy of an AI System. The Amazon Echo as an anatomical map of human labor, data and planetary resources (pp. 3-4). Novi Sad: Share foundation.

Criado-Perez, C. (2019). *Invisible women: Exposing data bias in a world designed for men* (pp.11-13). New York, NY: Abrams Press.

Gasparotto, M. (2016). Digital colonization and virtual indigeneity: Indigenous knowledge and algorithm bias (pp.2-13). Rutgers University. https://doi.org/10.7282/T3XG9TFG

Han, B. C. (2022). *Infocracy. Digitalization and the Crisis of Democracy* (pp. 8-23). Polity Press.

Hawthorne, S. (2018). Bibliodiversity: The politics of knowledge and the distribution of ideas. In D. Bramey & B. Haylock (Eds.), Distributed (pp.175-180). London, UK: Open Editions.

Schneider, F. (2013). Imaginary property. In M. Lewandowska & L. Ptak (Eds.), Undoing property? (pp. 101-103). Berlin: Sternberg Press.

Shaughnessy, A. (2018). Weightless data: The new heavy freight. In D. Bramey & B. Haylock (Eds.), Distributed (pp.52-58). London, UK: Open Editions.