

CHAPTER 9

Creating the Technological Saviour: Discourses on AI in Europe and the Legitimation of Super Capitalism

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Introduction

Dominant narratives in public fora, and increasingly within governments, place great importance on nations achieving leadership in artificial intelligence (AI). What is becoming clear is that world leaders are invested in making AI the business opportunity of the future – and thereby selling it as a virtue and a public good (Economist 2017, 2018; World Economic Forum 2018).

Scholars in political economy of communication have shown how discourses around digital technologies have historically been constructed around modern myths (Mosco 2004) with major references to utopian worlds and possibilities. Myths, conceived as the dominant ideologies of our time (Barthes 1993) become powerful devices that normalise conventional wisdom into ‘common sense’ (Gramsci 1971), thus making the conception of alternatives virtually impossible. As a result, digital developments and policies are adopted without the benefit of an informed debate (Brevini 2020).

Europe is rarely considered a leader in AI developments, but rather, seems to struggle to find its own voice squeezed between China and the United States. However, 2018 was a crucial year in Europe for the advancement of national and EU strategies on AI. The journey to develop an AI strategy in the EU

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started in April 2018, when the European Commission presented the ‘Declaration of Cooperation on AI’ now signed by all 28 Member States including Norway. Member states pledged to work together towards ‘a comprehensive and integrated European approach on AI’ (EU Declaration 2018). The declaration was followed by two communications reports by High-Level Expert groups on AI (High-Level Expert Group 2019); and a White Paper was published in February 2020.

This chapter aims to unwrap the recurrent myths employed in discourses on AI in Europe. In doing so, this work aims to embrace a research agenda that integrates political economy (Mosco 2004; Fuchs 2015; McChesney 2013) with cultural analysis, thus considering the idea of myth and mythmaking as an essential dimension of inquiry.

Why Dominant Discourses Are Crucial

That technology discourses have a central role in the legitimation of a specific political economic order has been at the centre of scholarship debates for some time (Mosco 2004; Freedman 2002; Brevini 2020). For example, Fisher (2010) has shown how technology discourse legitimated the ‘post-Fordist phase’ of capitalism characterised by ‘the weakening of labour and the state vis-a-vis capital, the liberalization of markets, the privatization of work, and the flexibilization of employment’ (Fisher 2010, 234). After all, technological ‘fixes’ have historically been crucial to solve potential barriers to capital accumulation. As David Harvey (2005) argues, technology becomes ‘a prime mover’ of capitalist growth (Harvey 2005). Likewise, several studies in the fields of history of technology, sociology and political economy of communication have shown the ideological functions of technology discourse (Mosco 2004; Barbrook and Cameron 1996; Dean 2002).

In this chapter I am drawing, in particular, on analysis that recognises the crucial role of myths in building discourses. In the *Digital Sublime* (2004) Mosco explains how myths are used to claim how digital technology is capable of triggering an historical break: ‘Almost every wave of new technology, including information and communication media, has brought with it declarations of the end ... Since these tend to take place with no reference to similar proclamations in the previous wave, one cannot help but conclude that the rhetoric of technology, the technological sublime that David Nye so perceptively identifies, is powerful enough to create a widespread historical amnesia’ (Mosco 2004, 117).

There are three crucial ways in which myths are used in the context of legitimising the status quo. Firstly, they are used as a weapon to control political debates. Secondly, they are used to depoliticise discourses that would otherwise show their contested political character. Thirdly, they are a crucial component of hegemonies, thus making it difficult for a counter-hegemonic discourse to arise. Barthes (1993) clearly elaborated on this conjoint relation between myths

and the political construction of reality in contemporary democracies. According to Barthes, myths have the ability to construct ‘common sense’, thus favouring established relations of power. But it was Gramsci (1971) who provided the crucial link between common sense and discourse. For Gramsci, myths are essentially common sense, defined as ‘not something rigid and immobile, but ... continually transforming itself, enriching itself with scientific ideas and with philosophical opinions that have entered ordinary life. Common sense creates the folklore of the future, that is a relatively rigid phase of popular knowledge at a given place and time.’ (Gramsci 1971, 326). Through this process, the values of powerful elites are naturalised, becoming the default position against which, all things are assessed and compared. Thus, myths, here conceptualised as common sense can influence and shape discourse and policy making in way that, as Wyatt notes: ‘sometimes today’s imaginary becomes tomorrow’s lived reality’ (Wyatt 2004, 244). It is through the legitimisation of dominant discourses (Brevini and Schlosberg 2016; Foucault 1980, 1981) when discourses become hegemonic (Gramsci 1996; Brevini 2020), that they can direct attention from the public, construct and promote digital developments, communication policy and legitimate modes of governance that would not have been possible without the establishment of such a discourse (Brevini and Schlosberg 2016). Incomplete discourses that become dominant can shape how society embraces technological developments.

Tech-Determinism, Tech-Solutionism and AI

The technological deterministic argument that technology can and will fix capitalism – and its intrinsic power to exacerbate inequalities of economic, racial, gender forms – is far from being a recent elaboration (Gilder 1990; Negroponte 1998). To use the words of Mosco, ‘one generation after another has renewed the belief that, whatever was said about earlier technologies, the latest one will fulfil a radical and revolutionary promise’ (Mosco 2004, 21; Brevini 2020). Mosco (2004) rightly reminds us of James Carey’s (1992) work that discussed how machines have often been framed employing a powerful religious ethos: ‘in contemporary popular commentary and even in technical discussions of new communications technology, the historic religious undercurrent has never been eliminated from our thought’ (Carey 1992, 18).

As a result, technology becomes the most powerful weapon purporting to lift the global capitalist system out of its recurrent crises; and virtually any social problem can be subject to a technical and technological fix (Kurzweil 1985). Development of digital technology, we are reassured, will empower people out of radical inequalities, while naturalising market-based solutions to every issue of governance. Raymond Williams, one of the most established cultural theorists to come out of Britain, offers a fruitful definition of technological determinism as a ‘largely orthodox view of the nature of social change’ (Williams 1974, 13).

Furthermore, he explains: ‘The basic assumption of technological determinism is that a new technology – a printing press or a communications satellite – “emerges” from technical study and experiment. It then changes the society or sector into which it has “emerged”’ (Williams 1985, 129). On the contrary, despite William’s belief in the opportunities offered by innovation, he held that ‘technology is always in a full sense social’, thus its development and usage are always shaped by the social relations of the society in which they are adopted (Williams 1981, 227).

Williams was writing at the time when, by the late 1970s, the so called ‘information revolution’ was just emerging as the new dogma in government and corporate planning (Dyer-Witheford 1999). But the information revolution myth kept getting stronger throughout the 1970s, 1980s and 1990s, ‘more attuned to the climate of Thatcherism and Reaganism’ (ibid. 21) than to a Keynesian state’s framework. This revolution should not come as a surprise since neoliberalism and the information revolution have been endorsed by corporate and governments elites as the solution to the ‘growth’ crisis of the 1970s. The neo-liberal Clinton administration of the 1990s was an aggressive supporter of the technocratic ‘information revolution’. In 1994 its congress passed the National Information Infrastructure Bill which launched the world famous ‘information superhighway’, championed by Al Gore in numerous speeches around the world. Another crucial futurologist of the time stressed once again the link between technological determinism and neoliberal ideologies. Francis Fukuyama’s influential book *The End of History* (1992), proclaimed that the end of the Cold War demonstrated the collapse of any reasonable alternative to neoliberalism. Moreover, in order to reinstate the alliance between neoliberalism and technology, in *The Great Disruption* (2017) Fukuyama argues:

A society built around information tends to produce more of the two things people value most in a modern democracy – freedom and equality. Freedom of choice has exploded, in everything from cable channels to low-cost shopping outlets to friends met on the Internet. Hierarchies of all sorts, political and corporate, have come under pressure and begun to crumble. (Fukuyama 2017, 4)

In sum, this hegemonic Silicon Valley discourse reaffirms again and again that technological progress not only provides newly enhanced individual freedoms but will lead to radical social change.

As a consequence, what has been dubbed as technological solutionism becomes the only logical consequence of late capitalism (Levina and Hasinoff 2016). The term *tech solutionism* has been popularised by Evgeny Morozov in his 2013 book *To Save Everything, Click Here* as:

Recasting all complex social situations either as neatly defined problems with definite, computable solutions or as transparent and self-evident

processes that can be easily optimized – if only the right algorithms are in place! – this quest is likely to have unexpected consequences that could eventually cause more damage than the problems they seek to address. I call the ideology that legitimises and sanctions such aspirations ‘solutionism.’ (Morozov 2013, 5)

From its beginnings in the 1950s, AI has not been exempted from these claims of offering a ‘solution’ to the inequalities of capitalism (Brevini 2020; Natale and Ballatore 2020; Elish and Boyd 2018). On the contrary, it has been surrounded by evocative claims about the imminent creation of a machine capable of surpassing the potentials of humankind. AI has often been hailed as the magic tool to rescue the global capitalist system from its dramatic failures (Brevini 2020).

Recent studies on popular and public debates on AI have started to show the extent of the dominance of this tech-deterministic ideology, especially in the US (Mayer-Schönberger and Cukier 2013). For example, Elish and Boyd’s research (2018) on AI rhetoric, concluded that ‘through the manufacturing of hype and promise, the business community has helped produce a rhetoric around these technologies that extends far past the current methodological capabilities’ (Elish and Boyd 2018, 58). In exploring public discourse shaping the popular imagination around possible AI futures, Goode (2018) observes that contemporary discourse is:

skewed heavily towards specific voices – predominantly male science fiction authors and techno-centric scientists, futurists and entrepreneurs – and the field of AI and robotics is all too easily presented as a kind of sublime spectacle of inevitability (...) that does little to offer lay citizens the sense that they can be actively involved in shaping its future. (Goode 2018, 204)

Furthermore, the latest study on media coverage of AI in the UK conducted by the Reuters Institute (Brennen, Howard and Nielsen 2018) showed that the UK media coverage of AI was overwhelmingly influenced by industry concerns, products and initiatives.

Thus, this chapter aims to contribute to these scholarly debates by investigating hegemonic discourses about AI emerging from the European Union’s official strategy on AI. In particular, it will highlight the most crucial myths on which hegemonic discourse is based.

Developing AI in Europe

The journey to develop the AI strategy in the EU started in 2018, when the European Commission presented the ‘Declaration of Cooperation on AI’ now signed by all 28 Member States, including Norway. In the Declaration,

Member States agree to a continuous dialogue to work together towards ‘a comprehensive and integrated European approach on AI and, where needed, review and modernise national policies to ensure that the opportunities arising from AI are seized and the emerging challenges addressed’ (EU Declaration 2018: 4).

The AI strategy is developed within the context and legislative packages of the Digital Single Market Strategy developed by the EC that include the European Data Economy initiatives, the General Data Protection Directive and, crucially, the European Cloud Initiative. The latter aims to ‘make it easier for researchers, businesses and public services to fully exploit the benefits of Big Data by making it possible to move, share and re-use data seamlessly across global markets and borders, and among institutions and research disciplines’ (European Cloud initiative 2019).

On 7 December 2018 the European Commission published a coordinated action plan on the development of AI in the EU (European Commission 2018a, 2018b). It pledged to increase its annual investments in AI by 70% under the research and innovation programme Horizon, in order to reach EUR 1.5 billion for the period 2018–2020. In its Communication (European Commission 2018a) the European Commission (EC) reaffirms the belief that ‘AI will help us to solve some of the world’s biggest challenges’, from treating chronic diseases and reducing fatality rates in traffic accidents to fighting climate change and anticipating cybersecurity threats (European Commission 2018a, 2). Therefore, the EC put forward a European approach to artificial intelligence based on three pillars:

- connect and strengthen AI research centres across Europe;
- support the development of an ‘AI-on-demand platform’ that will provide access to relevant AI resources in the EU for all users;
- support the development of AI applications in key sectors (European Commission 2018b, 1).

In order to support the development of the AI strategies summarised here, the EC established two advisory entities: The High-Level Expert Group on AI (HLEG); and the European AI Alliance. The High-Level Expert Group on AI is charged with developing proposals for the overall EU’s AI strategy, policy and priorities. It comprises 23 members from industry, 19 from academia and 10 from civil society; and it is further divided into two working groups: one on ethics; and one on investment and policy. The second advisory entity, the European AI Alliance, is a multi-stakeholder online platform. On the platform, EU members can contribute to ongoing discussions on AI, feeding into the European Commission’s policy-making processes. The European AI Alliance is conceived as a tool open to all members of society. Currently, it is composed of members from civil society, trade unions, companies, not-for-profit institutions and consumer organisations.

In the first year after its creation in June 2018, the HLEG released two major policy documents forming the basis of the latest White Paper on AI, adopted in 2020. The first document, Ethics Guidelines on artificial intelligence, put forward the concept of ‘Trustworthy AI’ and the key requirements that AI systems should meet in order to be trustworthy (High-Level Expert Group 2019a). The second document, Policy and Investment Recommendations (High-Level Expert Group 2019b), developed recommendations for AI towards sustainability, growth and competitiveness and inclusion. On 19 February 2020, the European Commission published a White Paper on artificial intelligence (European Commission 2020) aiming to foster a European ecosystem of excellence and trust in AI and a report on the safety and liability aspects of AI. The White Paper provides a simple, all-encompassing definition of artificial intelligence ‘AI is a collection of technologies that combine data, algorithms and computing power. Advances in computing and the increasing availability of data are therefore key drivers of the current upsurge of AI’ (European Commission 2020, 2). The White Paper is clear on twofold goals: on the one hand it aims to support the AI uptake and on the other it aims to address the risks linked to particular uses of it. These overall aims will be achieved through coordinated measures that will streamline research, foster collaboration between member states and increase investment into AI development and deployment; and through a policy toolkit for a future EU regulatory framework that would determine the types of legal requirements that would apply to relevant actors, with a particular focus on high-risk applications (European Commission 2020a). Although the White Paper does not set out a concrete framework for new AI legislation, it does set out the Commission’s key priorities.

Three Myths in Discourses on AI in Europe

Having outlined the current European Framework developed in the series of communications, High-Level Groups reports and lastly, the White Paper on AI, this section uncovers the recurrent myths employed in official EU plans to develop artificial intelligence. As discussed in the previous section, these myths become crucial components of AI discourse, justifying policy-making within the European Union. Furthermore, as I will argue, these myths construct a discourse that has the ultimate end of reinforcing the current neoliberal ideology of the current stage of capitalism.

Myth #1: Artificial Intelligence as a Solution for Humanity and Capitalism’s Biggest Challenges

In its communications of 25 April 2018 and 7 December 2018, the European Commission set out its vision for AI, which supports ‘ethical, secure and cutting-edge AI made in Europe’ (European Commission 2018a).

The vision could not highlight in a more striking way how AI becomes the solution for humanity's biggest challenge. The following two paragraphs taken from the two official communications (European Commission 2018a) could not be clearer:

AI is helping us to solve some of the world's biggest challenges: from treating chronic diseases or reducing fatality rates in traffic accidents to fighting climate change or anticipating cybersecurity threats. (ibid. 2)

In more evocative terms, the myth of the revolutionary character of AI is reinforced by a comparison with the 'steam' and electricity 'revolution'.

Like the steam engine or electricity in the past, AI is transforming our world, our society and our industry. Growth in computing power, availability of data and progress in algorithms have turned AI into one of the most strategic technologies of the 21st century. (ibid. 2)

The High-Level Expert Group on Artificial Intelligence (AI HLEG) goes into even greater detail about the capabilities of AI to make humanity 'flourish', thus solving all problems of society.

We believe that AI has the potential to significantly transform society. AI is not an end in itself, but rather a promising means to increase human flourishing, thereby enhancing individual and societal well-being and the common good, as well as bringing progress and innovation. In particular, AI systems can help to facilitate the achievement of the UN's Sustainable Development Goals, such as promoting gender balance and tackling climate change, rationalising our use of natural resources, enhancing our health, mobility and production processes, and supporting how we monitor progress against sustainability and social cohesion indicators. (High-Level Expert Group 2019a, 4)

It's impossible not to see in this mythical discourse the same rhetoric of technocrats of the 1990s (Gilder 2000; Fukuyama 1992; Shirky 2008) that argued how the new communicative opportunities provided by the internet would enhance a new era for democracy (Gilder 2000; Negroponte 1998), the end of history (Fukuyama 1992) and the beginning of a new era of freedom. The same ideological discourse is replicated in current techno-enthusiast claims about the cloud (Nye 1994) more recently debunked by Mosco in his book, *To the Cloud: Big Data in a Turbulent World* (Mosco 2014).

In pure enlightenment fashion, this absolute faith in technology, embraced and supported by cyberbarians' Silicon Valley circles (Dyer-Witheford 1999; Brevini 2020) turns into a powerful apology for the status quo and the current structure of capitalism, without any real space for critique.

Myth #2: Creating Urgency and ‘Preparing’ Society – AI as Ineluctable

The second of the most compelling myths emerging from my analysis of EU strategies on AI is the myth of AI’s perceived *ineluctability*, built through a constant emphasis on its urgency. Consider for example this quote, from the European Commission Communication of April 2018:

The stakes could not be higher. The way we approach AI will define the world we live in. Amid fierce global competition, a solid European framework is needed. (European Commission 2018a, 2)

Moreover, the White Paper – that is the latest policy document adopted by the EC to establish its framework (European Commission 2020) – stresses again the urgency for every sector of Public services to employ AI as soon as possible.

It is essential that public administrations, hospitals, utility and transport services, financial supervisors, and other areas of public interest rapidly begin to deploy products and services that rely on AI in their activities. (European Commission 2020, 8)

Overall, discourse stressing the need to hurry up on investments – such as ‘Europe is behind in private investments on AI’ (European Commission 2018a, 5), or ‘the European industry cannot miss the train’ (European Commission 2018a, 5) – are reiterated throughout the documents developing EU strategy on AI. So fast paced is the race to adopt AI that the opposite would be inconceivable:

Without such efforts, the EU risks losing out on the opportunities offered by AI, facing a brain-drain and being a consumer of solutions developed elsewhere. (European Commission 2018a, 6)

The myth of *AI ineluctability* is further enhanced by repetition of sentences reaffirming the role of the EU as enabler of AI, with an almost teleological duty to ‘better prepare our society for AI’ (European Commission 2018b, 5) as if its divine advent on earth was inevitable.

This should remind us of the dawn of AI developments in the 1950s (Roszak 1986), when popular accounts proclaimed the imminent development of intelligent machines capable of outsmarting the human mind amid promises to fundamentally change everything. However, as Goode (2018) recalls, in the last decade we have seen a clear increase of predictions that the arrival of superintelligence is imminent, thus the urgency (Goode 2018) this calls for in producing EU level strategies. Claims like ‘The singularity is near’, by Ray Kurzweil, futurist and Director of Engineering at Google are indicative of the current ‘anxiety surrounding the speed with which the technology appears to be developing, something that some robotics companies are keen to play up’ (Goode 2018, 199).

Unveiling this myth of the ineluctability of AI and its urgency, it is impossible not to recall Williams' analysis in *Towards 2000* where he stated that 'The sense of some new technology as inevitable or unstoppable is a product of the overt and covert marketing of the relevant interests' (Williams 1985, 133). In reality technological development is *not* predetermined, and alternative paths to a market-led development that reinforces the current neoliberal status quo are always a possibility (Brevini 2020).

Myth #3: AI Surpassing Human Intelligence

Like every institution that developed a strategy for AI, the EC also had to start by defining AI. The Communication of the Commission clarifies that:

Artificial intelligence (AI) refers to systems that display intelligent behaviour by analysing their environment and taking actions – with some degree of autonomy – to achieve specific goals. AI-based systems can be purely software-based, acting in the virtual world (e.g. voice assistants, image analysis, software, search engines, speech and face recognition systems) or AI can be embedded in hardware devices (e.g. advanced robots, autonomous cars, drones or Internet of Things applications). (European Commission 2018a, 2)

Moreover, what emerges from the EU documents is the underlying assumption that artificial intelligence will outperform human capabilities. In several documents, the EC explains that AI has the capacity to transform 'our world', our 'society', our 'work' (The Communication, European Commission 2018b, 1), thus implying that its abilities will exceed human cognitive functions. Take for example this statement:

AI needs vast amounts of data to be developed. Machine learning, a type of AI, works by identifying patterns in available data and then applying the knowledge to new data. The larger a data set, the better AI can learn and discover even subtle relations in the data. Once trained, algorithms can correctly classify objects that they have never seen, in more and more cases with accuracies that exceed those of humans. (European Commission 2018b, 6)

In the 1980s Roszak had already implemented the term 'technological idolatry' that propagates a deference to computers 'which human beings have never assumed with respect to any other technology of the past' (Roszak 1986, 45). This clearly reveals how the construction of AI as machines that can outperform human labour helps legitimise current capitalistic structures that are indeed capable of generating the technocratic imperative that see the

subordination of human labour to computers. Of course, as I have discussed above, neoliberalism has long established a privileged relationship with technology as the ‘prime mover’ of capitalist growth (Harvey 2005).

Conclusion

The AI myths discussed in these pages are very powerful tools for the construction of a discourse that make us perceive AI as the solution to the major problems in our society, including the inequalities brought about by capitalism and other major crises such as climate change and global health emergencies. Through these myths, AI then becomes the technological saviour, whose advent is ineluctable. As such, when the artificial machine arrives – in this future/present which is always inevitably imminent – it will manifest as a superior intelligence to solve the problems that capital economies have themselves created. Eventually, AI will outsmart humans to mend that damage and ameliorate further risks that capitalism inevitably occasions.

The recurrent myths that are omnipresent in the European Framework for AI have two major consequences. Firstly, they structure a hegemonic discourse that makes it impossible to think of alternative paths, framing resistance as futile because technological development is predestined. Accordingly, they legitimise a neoliberal ideology that pushes consumerism and productivity above all values and strips technology from the social relations that are at the basis of technology development (Williams 1985; Brevini 2020). Secondly, they redirect public discourse, by obfuscating and inhibiting a serious debate on the structural foundations of AI, its progressively concentrated ownership and the materiality of its infrastructures. Taken together, these myths of AI, construct a type of discourse that frames the problem of AI in a way that excludes any emphasis on crucial questions of ownership, control and the public interest. It also diverts attention from known problems of inequality, discrimination and bias of data analysed algorithmically that lies at the heart AI systems (Brevini and Pasquale 2020). When these crucial questions are asked, they are only addressed through the ‘AI ethical’ framework that has little to say about the structural inequalities on which AI is built (Wagner 2018).

This optimism for AI possibilities and achievements so popular in Europe and in the West, is obviously fuelled by extremely effective lobbying efforts by the most powerful technology giants that are already dominating the market and debate. From Alphabet to Amazon, to Microsoft, IBM and Intel, we have evidence that the giants of Silicon Valley are investing billions both on AI developments and on setting the terms of public debates on AI and determining policy outcomes (Benkler 2019). Thus, a central concern of this chapter is the migration of strategic decisions and choices on the direction of AI development from government to corporate board rooms: the privatisation of public policy.

Major lobby groups go in to bat for their vested interests in the policy arena, armed with funded academic research on the benefits of AI and efficiency. For example, a report published in 2019 by the *New Statesman* revealed that in five years Google has spent millions of pounds funding research at British universities including the Oxford Internet Institute (Williams 2019), while DeepMind, Alphabet's own AI company, has specifically supported studies on the ethics of AI and automated decision-making. Correspondingly, Facebook donated US \$7.5m to the Technical University of Munich, to fund new AI ethics research centres. Another troubling case is the US-based National Science Foundation program for research into 'Fairness in Artificial Intelligence', co-funded by Amazon (Benkler 2019). As scholar Yochai Benkler explained, the digital giant has 'the technical, the contractual, technical and organizational means to promote the projects that suit its goals' (ibid. 2019). Hence, 'Industry has mobilized to shape the science, morality and laws of Artificial Intelligence' (ibid. 2019).

Moreover, this portrayal of AI as the magic, divine hand that will rescue society also obfuscates the materiality of the infrastructures that are central to the environmental question that has been so consistently and artfully ignored (Brevini 2020). AI relies on technology, machines and infrastructures that deplete scarce resources in their production, consumption and disposal, thus increasing amounts of energy in their use, and exacerbating problems of waste and pollution. AI generates an array of environmental problems, most notably energy consumption and emissions, material toxicity and electronic waste (Brevini and Murdock 2017). Yet these myths help build a discourse that is skewed heavily towards specific voices – predominantly corporate and neoliberal – that build a so-called common sense that is too pervasive to challenge. AI brings us to a present/future in which alternative paths to current capitalism are unthinkable. And so, we surrender to our inevitable destiny of a new world order of wellbeing brought by AI, shaping that future for the benefit of the most powerful who built its technology and framed its hegemonic discourse.

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