



Nature, Culture, AI and the Common Good – Considering AI’s Place in Bruno Latour’s *Politics of Nature*

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Abstract. This paper considers the place and the role of AI in the pursuit of the common good. The notion of the common good has a long and venerable history in social philosophy, but this notion, so it is argued, becomes problematic with the imminent advent of Artificial General Intelligence. Should AI be regarded as being in the service of the common good of humanity, or should the definition of the social common rather be enlarged to include non-human entities in general, and AI’s, which in the future may include human level and superhuman level AI’s, in particular? The paper aims to clarify the questions and the concepts involved by interpreting Bruno Latour’s proposal for a politics of nature with specific reference to the challenge posed by the imminent advent of human level artificial general intelligence (AGI). The recent suggestion by eminent AI researcher, Stuart Russell, that the pursuit of AI should be re-oriented towards AI that remain in the service of the human good, will be used as a critical interlocutor of Latour’s model. The paper concludes with the suggestion that the challenge will be to steer a middle ground between two unacceptable extremes. On the one hand the extreme of a “truth politics” that assumes there is a pure human nature and definite human interests that must be protected against AI should be avoided. On the other hand, the alternative extreme of a naked “power politics” must also be avoided because there is a very real possibility that super AI may emerge victorious out of such a power struggle.

Keywords: Bruno Latour · Artificial intelligence · Common good · Stuart Russell

1 Introduction

The modern world has been characterised by an intractable opposition between nature and culture. This has been the longstanding thesis and arguably the primary underlying concern in the work of French sociologist and philosopher, Bruno Latour. Latour rose to prominence following the publication of his books *Laboratory Life* (1986), *Science in Action* (1988) and *We have never been modern* (1993) in the final decades of the last century. Especially in *We have never been modern* Latour describes and problematizes

the opposition between nature and culture that is, according to him, the defining characteristic of modernity. On the one hand, in modern thought, nature came to be regarded as the “objective reality out there” waiting to be discovered and faithfully described by what has become known as modern science. Nature, in other words, simply *is* what it is. On the other hand, there is the realm of culture – the realm of human subjectivity and freedom. In the realm of freedom, the incomparable dignity of human subjectivity lies in its autonomy; its ability to freely decide and to take responsibility for action. As is well known, this watertight distinction between nature and culture, necessity and freedom, found an enormously influential articulation in the thought of Immanuel Kant, who himself worked on philosophical problems already present in the work of Renee Descartes at the beginning of modern thought in the 17th century.

The dichotomy between nature and freedom gave rise to a whole series of analogous oppositions along with interminable struggles to reconcile, or at least to relate them. In his 2004 book, *Politics of Nature*, which will be the primary focus in this paper, Latour takes up the nature-culture divide again and explains how it translates into the oppositions between facts and values, between *is* and *ought*, between the common world and the common good, between truth politics and power politics, and between different viewpoints regarding the orienting transcendence of the world: *is* it the transcendence of nature, the transcendence of freedom, or the transcendence of the political sovereign? The Sisyphian labour of modern thought has been to police the borders between these oppositions, while ceaselessly drawing the borders again because they remain perpetually unclear, unstable, and porous.¹

The questions and philosophical challenges brought on by the possibility of Artificial Intelligence add further dimensions to the problem of the nature-culture divide. Artificial Intelligence does not sit well within the opposition between nature and freedom. On which side of the border should it be classified and maintained? Should it be regarded as part of non-human nature, or should it be accorded aspects of agency and moral responsibility that were hitherto reserved exclusively for human subjectivity? In his latest book, *Human Compatible*, well known Artificial Intelligence researcher Stuart Russell observes that the achievement of human level Artificial General Intelligence is indeed not far off. However, he argues that there is something fundamentally wrong headed about the way the achievement of Artificial Intelligence has been pursued thus far. “From the very beginnings of AI, intelligence in machines has been defined in the same way: Machines are intelligent to the extent that their actions can be expected to achieve their objectives.” (Russell 2019:20) According to Russel this is wrong and indeed could be regarded as a huge threat to the future flourishing of humanity. There is a very real possibility that Artificial Intelligence will become super intelligence and that it then will pursue its own objectives to the detriment of its human creators. In this scenario Artificial Intelligence will not lead to the common good in society, but actively detract from it. Accordingly, Russel proposes that we should change our understanding of Artificial Intelligence to the following: “Machines are beneficial to the extent that their

¹ For a critical engagement with Latour’s deconstruction of the nature-culture opposition, see Collins and Yearley (1992:301–326), Walsham (1997) or Pollini (2013), specifically with regard to ecology.

actions can be expected to achieve our objectives.” (2019:22) Our pursuit of Artificial Intelligence must in other words be guided by the lodestar of the human good.

In the present paper I engage with Russell’s thesis from the perspective of Bruno Latour’s politics of nature. I argue that Artificial Intelligence can and should be accommodated in the ongoing political process of constructing our common world. Artificial Intelligence should be allowed to make presentations in the developing *res publica* – public thing – that is our world. It is precisely because the hitherto watertight distinction between the human and the non-human is untenable that the role of Artificial Intelligence in the construction of the collective can in the future become less problematic and even normal. An important implication of this argument would then be the deconstruction of the opposition between the common world and the common good, and the highlighting of the possible contribution of AI in this regard.

The argument develops along the following steps: in the next Sect. 1 outline Latour’s deconstruction of the nature-culture dichotomy, as well as his proposal for a process of continually negotiating a common world. In the following Sect. 1 argue that Artificial Intelligence can make a vital contribution towards the efficacy and fairness of the two powers that, according to Latour, shape the public domain – the power to take into account and the power to arrange in rank order. To accord such a supportive role to AI would, however, miss the opportunity to engage with the far greater challenge that human level and superhuman level AI poses: the challenge of non-human agency and intelligence in general. In the final section of the paper I therefore argue that Russell’s alarm about AI pursuing its own goals to the detriment of human goals may be understood and philosophically critiqued in terms of the watertight dichotomy between nature and culture. In this case “nature” is a purportedly pure human nature and autonomy that must be safeguarded against the goals of autonomous AI. But, following Latour, it must be conceded that there never has been a pure nature. In his words: we have never been modern. We must accept that, just like other non-human actants, AI plays a role in the continuous construction of the collective. The more this is recognised and normalised, the less it will be possible to use AI for nefarious purposes in political processes. The paper nevertheless ends with a concession to Russell that Latour’s politics of nature can potentially reduce to a power politics, in which case a very powerful AI could indeed be a threat to the human good.

2 Latour’s Politics of Nature

“What do nature, science, and politics have to do with one another?” This is the question Latour asks in the introduction to his *Politics of Nature* (2004:6). In the following chapters he proceeds to show how nature, in modern thought, came to be regarded as the realm of matter and material forces. As such, nature exists and functions according to universal natural laws. It is the role of science to faithfully and as objectively as possible reflect nature in a growing body of knowledge. Science is simply the mirror of nature (2004:4).² On top of the “objective” realm of nature sits the “subjective” realm of politics. Nature is the simple given within which politics takes place. But, apart from being there, nature

² This is, of course, also the title of a famous book by Richard Rorty in which he too criticizes a modernist conception of knowledge (Rorty 2017).

has nothing to say in the political process. It is up to human actors to decide how we should live together, what is moral and what is immoral, what is good and what is bad. On these matters, science has nothing to say. Its role is restricted to simply presenting the facts. In its essence science is and should be value free.

The watertight distinction between nature and culture can be associated with two opposing traditions in modern political thought. Graham Harman, one of the foremost English language interpreters of Latour, formulates the two opposing traditions that Latour indicates in *Politics of Nature*, but seldom mentions in so many words as the tradition of truth politics and that of power politics (Harman 2014 Kindle Loc. 201; see also Harman 2009). The tradition of truth politics orients itself on what it regards as objective truth. There are many variants of truth politics, also from premodern times, but a salient modern example would be Marxism. After all, the history of all hitherto existing society is the history of the development of an inexorable law – that of class struggle, and the political process should be true to this law. Another example of truth politics that Latour specifically treats in *Politics of Nature* is the politics of the so-called Green movement. In this politics science is explicitly invoked as the touchstone of the truth. The facts speak for themselves; we are destroying the environment and therefore we must change our policies.

In contrast to the tradition of truth politics, according to Latour as interpreted by Harman, we find in modern thought the tradition of power politics. Denying any objective truth that should guide political action, power politics works on the principle that might is right. Power is what structures society and what ultimately holds society together (Harman 2014 Kindle Loc. 234–235). Here, of course, the salient exponent of such an approach is Thomas Hobbes. The important point to realise, however, is that the opposition between truth politics and power politics is only the surface effect of a deeper agreement. Both of these approaches accept the unwavering separation of the realm of objects, and the realm of subjects, or, in other words, of nature and freedom. They only differ in where they place the emphasis: should the political process be guided by objective facts or laws of nature, or should it be guided by human freedom? According to Latour both traditions suffer from the same shortcoming: they seek to prematurely end the political process. The strategy of truth politics is to cut off any further negotiation by appealing to brute facts (Latour 2004:13). The strategy of power politics on the other hand is to short circuit the political process by fiat (2004:54).

It is in the impasse between truth politics and power politics that Latour seeks to make an intervention. He does this by demonstrating that the opposition between truth politics and power politics does not hold, and that this is so because the opposition between nature and culture does not hold. On the one hand, science can never be value free. The presentation of scientific facts always has a persuasive character. The scientific enterprise has an agenda, it wants to nudge and cajole society in a specific direction. On the other hand, human freedom simply must take into account the constraints posed by certain stubborn realities that keep on thrusting themselves onto the agenda. Politically, for example, a government can decide to open up schools and beaches and restaurants in the midst of the Covid-19 pandemic, but eventually it can no longer be denied that the virus keeps on spreading and people keep on dying.

Latour's suggestion is that we must change our understanding of "the social" (2004:37). Instead of a mute nature lying over against the social, and being excluded from the political process, we should rather become more agnostic about all the actants in our environment – both human and nonhuman. In Latour's words: "we are not dealing with a society 'threatened' by recourse to an objective nature, but with a collective in the process of expanding: the properties of human beings and non-humans with which it has to come to terms are in no way assured." (2004:38). In other words, we should not be so sure that nonhuman beings are always mere objects, while human beings are always subjects (2004:61). The distinction between subjects and objects is not helpful. In the old dispensation "objects" were used by truth politicians to short circuit the political process. On the other hand, the appeal to the freedom of subjectivity was used by power politicians to similarly short circuit the political process. Undermining this distinction, Latour persuasively demonstrates that nonhuman beings also speak and have agency. Conversely, human beings' speech is never completely pure or clear, their agency never unmediated. Latour's new political ecology would have us replace our previously held certainties about which beings belong to nature, and which to culture with three uncertainties. "The first has to do with speech "impedimenta": Who is speaking? The second has to do with capacities for association: Who is acting? The third and last has to do with the recalcitrance of events: Who is able?" (2004: 87). Let us briefly discuss each of these three uncertainties.

The first necessary uncertainty for a reconceptualised political process is the agnosticism about who is speaking. According to Latour, our common world is composed by way of continual debate. And the political collective should always be regarded as an assembly of beings capable of speaking and stating their case (2004:62). But here it is imperative to understand that nonhuman beings also speak and are therefore also part of the political process. How do they speak? They speak through the mediation of spokespeople and speech prostheses (2004: 64, 67). On the one hand a nonhuman being, for instance a virus, speaks by way of the many scientists that continually interact with it. On the other hand, the speech prostheses that the virus utilizes to speak through these spokespeople are the intricate sets of laboratory equipment that allow its voice to be heard in the public square. Microscopes, genetic charts, statistics of infection rates are all so many prostheses that allow a virus to speak, also by way of its spokespeople the scientists. But the uncertainty about who speaks remains, and this is crucial. There is always the possibility that a spokesperson can speak in her own name, and not faithfully in the name of that for which she is speaking. There is always also the possibility that the intermediary instruments, the speech prostheses, are inaccurate in their giving voice to the being that is speaking. So, should politics not then, after all, be reserved only for human beings? No, because the uncertainty about who speaks is also there in the case of human beings. In the human world too controversy is always there, and so the uncertainty about who speaks and who speaks for who will always be there. And that is why, according to Latour, the political process never ends.

The second necessary uncertainty in a revitalized politics is the uncertainty about who is acting. Here the troubling distinctions inherited from the nature-culture opposition are the distinctions between things and people, or objects and subjects. Within this scheme social action is reserved for subjects, whereas objects necessarily behave according to

deterministic rules of cause and effect. Furthermore, within this scheme a zero-sum game is operative: the more entities are considered to be determined objects, the less they can be considered as subjects, and vice versa (2004:76). But this distinction is unhelpful according to Latour, and only serves to paralyze the political process. It is, moreover, untenable. Because, if all entities are more and more treated as objects, we can no longer count on the input of human actors with freedom and responsibility to decide what must be done. Everyone is, after all, determined. Conversely, if the model of free will is extended to everything, including the planet, there will no longer be “the raw, unattackable nonhuman matters of fact that allow it to silence the multiplicity of subjective viewpoints, each of which expresses itself in the name of its own interests” (2004:73). To overcome this zero-sum deadlock, Latour proposes that we confess our uncertainty about who is acting. Instead of talking about acting subjects and acted upon objects, people and things, we should consistently talk of human and non-human actors. All entities within the political collective act, simply by virtue of the fact that they influence other actors. To rid our speech in this regard of any anthropomorphism, Latour proposes that we talk of actants, instead of actors. An actant is an acting agent, an intervener, an influencer. And, once again, in the political process we should keep on enlarging the list of active actants in our commonwealth (2004:76).

The third dose of healthy agnosticism needed in a reconfigured political process is uncertainty about what is real; what really exists. The nature-freedom divide often forces us into a kind of materialistic naturalism on the one hand, or a constructivist idealism on the other. But here, above all, the political process should be more pragmatic, according to Latour. In dealing with those who speak, those who act and intervene in your world, why not credit them with the properties you yourself hold dearest – in this case reality (2004:77). Instead of taking external reality to be the simple “being there” of brute facts, we should associate it with that which surprise us and interrupt the smooth flow of our life with an insistence that it is there. “Actors are defined above all as obstacles, scandals, as what suspends mastery, as what gets in the way of domination, as what interrupts the closure and the composition of the collective.” (2004:81) While something is stubbornly standing in the way of our definition of the common world, the *res publica*, while something is recalcitrantly refusing to be ignored, we should accept its reality, says Latour. And the more entities we admit as participants in our common enterprise of forming our world, the better.

3 AI and the Two Powers at Play in Unsettling and Stabilising the Collective

Now that we have undermined the old divide between nature and freedom, between the common world and the common good, and have replaced it with a number of uncertainties and a growing list of participants, we should think, along with Latour, about the possible functioning of the political process in this new dispensation. In this Sect. 1 would like to consider the role that Artificial Intelligence can play in this reconfigured political process but in a restricted and still somewhat unsatisfactory way. In the last section of the paper I then consider the deeper implications of Latour’s deconstruction of the nature-freedom

divide for our thinking of Artificial Intelligence and the common good and bring them into discussion with Russell's reservations.

Latour's proposal for reconfiguring the political process involves "the rearrangement of the squares on the chess board" (2004:5). In other words, we should not only re-arrange the pieces on the board according to the same rules, but fundamentally reconceive how the political process works. The blurring of the line, the constitutive uncertainty about what is nature and what is culture, what is a subject and what an object remains the point of departure in this regard. The point is, we cannot be certain of what should be regarded as brute facts of nature, and what should be regarded as values of human freedom in the political process. This does not mean, however, that we should not appreciate the rationale behind paying attention to facts and being attentive to values that animated the reference to facts and values in the first place.

According to Latour, in the notion of "fact" there are two legitimate imperatives at work that are nevertheless confusedly held together within this one concept. Similarly, in the notion of "value" there are two imperatives operating that are also legitimate, but that are held together in a confused way. The first imperative within the confused notion of fact is to be open to "external reality" (2004:110). As we have seen, actants stubbornly establish their presence and demand to be acknowledged: they are there, whether we like it or not. The second imperative confused within the notion of fact has to do with acceptance or closure. At least until the next cycle of the political process (see below) we should now accept that certain actants are part of the political process and that their voices should be taken into account. Thus, contained in the erstwhile notion of fact, there is on the one hand an imperative for openness to external reality, and on the other hand an imperative for stabilizing and institutionalizing what is for the time being to be accepted as part of the collective.

The first imperative rolled up into what was previously regarded as "values" in the political process is the imperative to listen to and critically evaluate the voices of the actants that stubbornly demand to be listened to. In Latour's words, "it is necessary to make sure that reliable witnesses, assured opinions, credible spokespersons have been summoned up, thanks to a long effort of investigation and provocation (in the etymological sense of 'production of voices')" (ibid.) Another way of describing this imperative would be to talk of the requirement of openness or consultation.

The second imperative confusedly contained in the notion of value is the requirement to weigh up and to decide where to position an actant within the hierarchy of importance that functions in the body politic. If it is true that the political process is a clamour of many voices all appealing for a place in the sun of the common world, then it is just as true that some kind of hierarchy must be communally agreed upon, otherwise there will only be chaos. The relative importance of a voice – an interest – within the commonwealth must be established through a process of give and take. Here it can clearly be seen how politics is the proverbial art of the compromise.

Latour therefore unbundles the defunct opposition between facts and values into four imperatives or requirements of the political process. First the requirement to pay attention to actants that announce their intention to become part of the political process. The body politic must be open – willing to become perplexed – by the possible reality of voices that have hitherto not been recognized as real. Secondly there is a requirement

to critically evaluate the voices of the actants that are harrowing the body politic. This is the requirement of openness: what are the new voices really saying? Who is speaking on their behalf, using what means? The third requirement, then, is the requirement to rank the importance of a voice within the hierarchy that is the body politic. Where should the new actant that has been identified and listened to fit in? What is its relative importance? And finally, there is the requirement of provisional closure. The imperative to institutionalize, at least for a time, the hierarchy that has been established so that the body politic can live and be a common world.

The perceptive reader will have noticed that from the unbundling of the fact-value distinction to the enumeration of the four imperatives functioning in the political process a subtle shift has taken place. The four imperatives have been grouped differently. Latour does this to highlight that there are two powers at work in the political process. The first power is a power of destabilization or unsettling. Far from being negative, this power is necessary for the health of the process. The second power is a power of stabilization and institutionalization – a power equally necessary for the health of the political process. Latour names the first power (the destabilizing and unsettling power) the power to “take into account”. Two imperatives energize this power – one from the erstwhile notion of fact, and one from the erstwhile notion of value. The imperative to be open to becoming perplexed by external reality, and the imperative to evaluatively engage with actants that become visible together drive the power to take into account. This power opens up and unsettles the body politic so that it can change and grow. The second power Latour names the power to “arrange in rank order”. This power, similarly, is made up of two imperatives – one from the erstwhile notion of fact, and the other from the erstwhile notion of value. In the first place the imperative to decide where in the hierarchy an actant should be positioned is what energizes the power to arrange in rank order. In the second place the imperative to institutionalize or close down further discussion is what energizes the power to arrange in rank order. This power then evidently stabilizes the body politic so that it can live and function.

Very important to note is that what has been described above is what Latour calls a single cycle in the political process. Once provisional closure has been reached through the power to arrange in rank order, the process starts up again in a next iteration: the perplexity caused by actants that have hitherto been excluded must be heeded as it functions within the power to take into account. And so, in Latour’s conception, we have a circular process where the two powers continually operate and balance each other out.

The point I would like to make now is that this conception of the political process gives us the theoretical tools to think about the role of Artificial Intelligence in that process, and specifically in pursuit of the common good (bearing in mind that this conception also disturbs the strict border between the common world and the common good.) Artificial Intelligence can play an auxiliary or amplifying role regarding all four the imperatives, and concomitantly, with regard to both the powers at work in the political process. In line with a general insight regarding technology (cf. Ihde and Malafouris 2019), AI can furthermore function in a positive way as well as in a destructive way in all these processes.

In its present form AI is already functioning in service of the imperative to openness in the political process. In this regard one can think of the many data analysing algorithms

at work today. Using these algorithms trends and patterns are identified and these then become actants whose candidacy for reality and inclusion in the body politic must be considered. Russell (2019:73) provides an excellent example of machines' role in the imperative to openness. At present thousands of satellites are continuously imaging every square meter of the world's surface. In Russell's estimation, more than thirty million human employees would be necessary to analyse all the images received from satellites. The result is that much of the satellite data is never seen by human eyes. However, computer vision algorithms process this data to produce searchable databases "with visualizations and predictive models of economic activities, changes in vegetation, migrations of animals and people, the effects of climate change, and so on." (Ibid.) All of this result in an increased sensitivity towards new entities or phenomena that should be taken into account in the construction of the common world.

Once an entity's candidacy for citizenship has been registered, its claims must be evaluated and weighed. It will be recalled that in Latour's view the imperative here is to make a case, and to be open to the case made. It is thus a matter of advocacy and of how compelling a case can be made. Russell notes that AI will play a huge role in this regard, in the sense that services previously open only to the super-rich will become accessible to everyone. "And in the mundane world of daily life, an intelligent assistant and guide would—if well designed and not co-opted by economic and political interests—empower every individual to act effectively on their own behalf in an increasingly complex and sometimes hostile economic and political system. You would, in effect, have a high-powered lawyer, accountant, and political adviser on call at any time." (Russell 2019:105) On the other hand algorithms are also already at work to strengthen the power to evaluate and weigh up the appeals made by an actant in the public sphere. AI is already playing a role in various fact checking services that monitor and moderate the many voices on social media and news sites (Russell 2019:113). In this regard one can think of sites like factcheck.org and snopes.com.

The second imperative at work in the power to arrange in rank order is the imperative to establish a hierarchy of interests. It is the imperative to perform triage regarding the relative importance of an actant's demands. Here, as well, AI is already rendering valuable service, and the expectation is that this will increase in the future as the capacity of AI increases. Russel (2019:134) takes an example from the airline industry to illustrate the decision-making power of AI. At first computers were only involved in the drawing up of flight schedules. Then the booking of seats, the allocation of flight staff and the booking of routine maintenance were also computerised. Next airlines' computers were connected to international aviation networks to provide real-time status updates on flights and situations at airports. At present algorithms are taking over the job of managing disruption in the aviation workflow by "rerouting planes, rescheduling staff, rebooking passengers and revising maintenance schedules." (Ibid.) Would AI be able to perform similar functions in the area of governance and the allocation of public funds? Undoubtedly. This becomes even more apparent when the power of AI in scenario planning is considered (cf. Sohrobi et al 2018).

The final imperative for the political process is again part of the power to take into account. But now it is an imperative towards provisional closure of the body politic. For the commonwealth to function certain realities must be stabilised, at least for the time

being. In this regard two examples of the contribution of Artificial Intelligence should suffice. In the first place, AI can play a role in understanding what the current state of stability and preferences looks like. By looking at an initial state, learning algorithms can now already infer the implicit preferences present in that state, and bring them to light, thus accurately displaying the present state of affairs (Shah et al. 2019). The second example pertains to the moderating role that AI plays in contemporary social media. As body politic we have agreed amongst ourselves that it is not acceptable that the dignity of certain actors should be jeopardised, for instance through the language used to describe them, or the incitement of violence towards them, or the denial of their right to existence. Algorithms monitor social media posts and are sensitive towards certain formulations. This could result in posts being deleted and accounts being suspended. In such a way a definitive affirming of the legitimacy of a particular social ordering is achieved. But, as Latour emphasises, this is only until the cycle of the political starts up again, and the voices of all actants, old and new, are taken into account again.

While taking note of the possible service that AI can render to the two powers at work in the composition of the common world, the fundamental uncertainties that Latour take as his points of departure must again be emphasised. Misrepresentation and deception are also possible and are certainly also actual in the political process. AI can also amplify these forces, as has been amply illustrated in recent electoral processes. While noting this, I will not elaborate on it, and rather return to the original question of AI's place in a social world where a clear distinction between nature and culture does not hold water.

4 Whose Interests, Which Common Good – Hard Questions About Strong General AI

If Latour's deconstruction of the nature – culture binary rings true, then "the good", and per implication "the common good", cannot be a realm of human value lying over against an objective world of facts. Rather, to speak of the common good is another way of talking about the arrangement of the common world, and this is a world of constitutive uncertainty about who is speaking, who is acting, and, indeed, who should be accepted as existing at all.

This perspective allows us to raise doubts about Russell's proposal regarding the role of Artificial Intelligence in his book *Human Compatible*. Russell explicitly wants to define the common good as the human good, and correspondingly wants to re-orient the project of the achievement of general AI towards the achievement of AI that will always have goals that are beneficial to humans. To this end Russell proposes three principles that should guide AI researchers and developers in their work towards general AI: "1.) The machine's only objective is to maximize the realization of human preferences. 2.) The machine is initially uncertain about what those preferences are. 3.) The ultimate source of information about human preferences is human behaviour." (Russell 2019:176).

From a Latourian perspective, one would say about this proposal that it assumes the modernist watertight distinction between nature and culture. In this case it is a purportedly pure human nature that must be defended against human cultural products that have gained autonomy. But then one would have to reiterate with Latour that we have never been modern. There has never been a pure nature – also a pure human nature – that

could short circuit the process of consultation, of listening, of weighing up the claims of humans as well as non-humans in their co-existence. We find ourselves with a constitutive uncertainty regarding the common good, including the good of human beings. According to Latour's conception, Russell is short circuiting the political ecology by appealing to a pure human nature that is simply given.

Interestingly, Russell acknowledges the uncertainty about what would constitute the human good at various instances in his book (e.g. 2019:23), but he nevertheless maintains that a practical, engineering kind of safety system must be put in place to ensure that the design of artificial intelligence would always follow human preferences (2019:188). Russell suggests that while humans are not always certain about what constitutes human flourishing, all humans would agree that being subservient to artificial super intelligence that is indifferent to human preferences will not be good. He therefore suggests that AI should be designed to have a constitutive uncertainty about human preferences and to always defer to humans about their preferences.

From his perspective of the common good as inextricably bound up with the common world, Latour might conceivably counter that the circle of the political process be allowed to take its course. Thus, Artificial Intelligence, just like any other actant, would arrive on the radar of the common world through its recalcitrance – it refuses to go away. This is definitely already the case with AI, and Russell admits as much in his book. Secondly, following Latour's imperatives, we would have to listen to and weigh up the case that AI makes for its inclusion in our commonwealth. Latour's generous understanding of agency will initially make things easier: if rising sea levels or a virus can have a voice in the political process, then AI certainly can as well. The advantage of Latour's imperative towards openness is also that it urges awareness. In the political process, we need to be aware of AI's presence. AI should not be allowed to become invisible and work in the background. The more we for instance become aware that AI tracks our preferences and tailors communication accordingly, the more we will weigh it up before accepting it.

The third imperative (part of the power to arrange in rank order) is to fit AI into the hierarchy of importance in the political process. In this case as well it cannot be all or nothing – either deny general AI a place in the hierarchy or capitulate and allow AI to pursue its own interests unchecked. There must be an ongoing process of negotiation and a keeping in mind of the unique contributions that humans and other actants can bring to the body politic.

Finally, Latour urges that the political process be stabilized, at least provisionally. In this regard one can think of the legislation and the various protocols and industry standards that must be in place with regard to AI in its present form. When AI develops into artificial general intelligence (AGI), this will have to be revisited and reformed for the next cycle of the political process.

In the case of the last imperative, Russell, of course, is afraid that the stabilization will be too little too late. Once a certain boundary is crossed, the development of AI will be out of human control and will go ahead according to its own goals. Russell, in other words, is worried that AI will become so powerful that it will take over the whole political process. All other actants will be effectively powerless in the face of AI's power, with the result that there will really be only one actant in town. Dave Eggers' novel *The Circle* provides a sketch of what the early stages of such a scenario could

look like: people are effectively forced to live completely transparent lives, because the tiniest details of their lives are recorded and analysed and regulated (Eggers 2014; cf. Horvat 2019:47–50).

Latour would, of course, insist that the political process must be continuously disrupted. The circular process is an ongoing, give and take process. It cannot be smoothed over and managed by one sovereign. The smooth circle of Eggers' dystopia where AI becomes all powerful but recedes into the background, should not be allowed to happen. Rather, just like all other actants, AI's functioning should be noticed and weighed in the political process. The question, however, remains: what if AI becomes too powerful? This is indeed where Latour's proposal for a political ecology is vulnerable to critique. It has been suggested that Latour's model, if pressed to its consequences, falls back into power politics (Harman 2014:19). If the political process is one of negotiation, of garnering support for one's interests, of pressing others into service for one's aims, then the interest of the strongest, most convincing will prevail. In Russell's estimation there is a very real possibility that AI might emerge as the strongest to the detriment of humans in society.

In considering AI's place in Latour's *Politics of Nature* one is then, seemingly, left with the challenge to move beyond the current opposition of two unacceptable extremes. On the one hand a truth politics that assumes there is a pure human nature and definite human interests that must be protected against AI should be avoided. On the other hand, the alternative of a naked power politics must also be avoided because there is a very real possibility that super AI may emerge the most powerful. Latour's solution to the dilemma is that the circular movement of the political process should never be allowed to stall. The process cannot be short circuited by an appeal to a pure human nature and a purely human good. But equally the process must not be allowed to be hijacked by immensely powerful AGI. In this regard the question is whether humans can rediscover and optimize their own important and irreplaceable contributions to the common world which will ensure a dignified and flourishing place in this commonwealth.

References

- Collins, H.M., Yearley, S.: Epistemological chicken. In: Pickering, A. (ed.) *Science as Practice and Culture*, pp. 301–326. The University of Chicago Press, Chicago and London (1992)
- Eggers, D.: *The Circle*. Vintage, New York (2014)
- Harman, G.: *Prince of Networks: Bruno Latour and Metaphysics*. Re.press, Melbourne (2009)
- Harman, G.: *Bruno Latour: Reassembling the Political*, Kindle Edition. Pluto Press, London (2014)
- Horvat, S.: *Poetry from the Future*. Penguin, London (2019)
- Ihde, D., Malafouris, L.: Homo faber revisited: postphenomenology and material engagement theory. *Philos. Technol.* **32**, 195–214 (2019)
- Latour, B.: *Laboratory Life – The Construction of Scientific Facts*, trans. Steve Woolgar. University Press, Princeton (1986)
- Latour, B.: *Science in Action – How to Follow Scientists and Engineers Through Society*. Harvard University Press, Cambridge (1988)
- Latour, B.: *We Have Never Been Modern*, trans. Catherine Porter. Harvard University Press, Cambridge (1993)
- Latour, B.: *Politics of Nature – How to Bring the Sciences into Democracy*, trans. Catherine Porter. Harvard University Press, Cambridge (2004)

- Pollini, J.: Bruno Latour and the ontological dissolution of nature in the social sciences: a critical review. *Environ. Values* **22**(1), 25–42 (2013)
- Rorty, R.: *Philosophy and the Mirror of Nature – Thirtieth Anniversary Edition*. University Press, Princeton (2017)
- Russell, S.: *Human Compatible – Artificial Intelligence and the Problem of Control*. Viking, London (2019)
- Shah, R., et al.: Preferences implicit in the state of the world. In: *Proceedings of the 7th International Conference on Learning Representations* (2019). Available at iclr.cc/Conferences/2019/Schedule
- Sohrabi, S., Riabov, A.V., Katz, M., Udrea, O.: An AI Planning Solution to Scenario Generation for Enterprise Risk Management. *Association for the Advancement of Artificial Intelligence* (2018)
- Walsham, G.: Actor-Network Theory and IS research: current status and future prospects. In: Lee, A.S., Liebenau, J., DeGross, J.I. (eds.) *Information Systems and Qualitative Research. Proceedings of the IFIP TC8 WG 8.2 International* (1997)