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### Epilogue

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# Epilogue

## Technological mediation, and human agency as recalcitrance

*Antoinette Rouvroy*

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Autonomic computing is nothing but a projection, or an evolutionary program for the 'computational species' – a species composed of technologically mediated subjects (Verbeek), increasingly intersecting and interacting with digital systems (Rodotà). Yet, its foreshadows plunge us into abyssal ontological, epistemic and normative interrogations with regard to the fate – and thus also the actuality – of human identity, agency, autonomy and legal subjectivity. As such, autonomic computing, as a vision, revitalizes ancient questions. It reminds us of a series of uncertainties regarding the implications, for the law, of conceiving human identity and singularity as a dynamic process rather than as a fixed phenomenon; it reiterates the question whether a subject can be said to be autonomous and responsible for his or her actions despite not having a fixed identity, and despite not being in control of the conditions and circumstances which shape and re-shape his or her autonomy (Rodotà); it evokes the doubtful connection or articulation between the concepts of body, person and identity (Mathias); it renders the question crucial of what residual or fundamental role embodiment does, could or should play in a context of digitalization of life itself, or whether embodiment still – or at last – attests to the 'nature' of human agency (Hyo Yoon Kang). These interrogations recall the precarious nature of human intentionality, reasons, motivations and actions and reinvigorate questions about the role – either real or fictional – the law presupposes these 'capabilities' to endorse as constitutive of or conducive to human agency.

It is not my ambition, in this epilogue, to try and summarize the highly sophisticated, nuanced and thoughtful contributions gathered in the previous chapters. Expecting the flamboyance of an afterimage, of a structuring 'motive' for the contrapuntal articulation of the philosophical registers visited or re-visited in this volume would of course be naïve and premature given both the launching and prospective character of the 'subject'. One safe bet one can make though is that such interdisciplinary encounters, inaugural as they appear, will be paramount as to preserve, collectively as well as individually, the possibility to reflect about and evaluate the coming transformations of our relations to the world and to ourselves. Preventing the anticipatory erosion of philosophical vigilance, philosophical puzzles happen as interruptions, suspensions, or retardations of the otherwise unquestioned – and automatic – shift from anticipation to actualization

of technological 'projections', be they called autonomic computing, ambient intelligence, or ubiquitous computing. As such, encounters of the type attested in the volume, and, ideally, their accommodation to a wider audience, should afford politics the space and time necessary to govern technological and social evolutions according to deliberate, explicit and sustainable projects, and to avoid having world visions exclusively embedded in strong, yet often hidden, commereial interests imposed upon themselves. The inspiring idea of a community of rights suggested by Roger Brownsword is particularly relevant to show that making projects, beyond or despite the apparent immanence of the digitalized society, is still peoples' and communities' responsibility. Let us not forget, in this regard, that most of our post-industrial artefactual environment, seamless as it appears and translating our own embodied life into dis-embodied data-sets, have been and are produced by working and suffering bodies elsewhere, in 'third-world' countries where most people, struggling for their physical survival, do not have access to the brave new data-world we are contemplating with both excitement and fears. Among the most urgent issues, which is nevertheless beyond the reach of this volume, and which would require attention and intervention of other disciplines than philosophy of law and philosophy of technology, is the somewhat 'cannibalistic' exploitation of invisible bodies in the so-called 'under-developed' parts of the world, whose agency consists mainly in struggling for their own physical survival, and the contrasting escape from embodiment experienced in our post-industrial informational capitalistic society.

This volume gathers contributions to the study of 'agency' in a world of autonomic computing, with a tacit assumption situating the 'problem', or 'enigma' of the subject (Rodotà) in the context of so-called post-industrial liberal democracies. The reflections provided in this book are obviously impressed by a Western, liberal culture. The questions the vision of autonomic computing suggests to philosophers of technology and to philosophers of law are also raised from within the same culture where the autonomous individual appears both as a presupposition and as a normative project in itself. In such a context, it is indeed highly relevant to ask what autonomic computing would change – if anything – with regard to human intentions, reasons, motivations, embodiment, language, actions and the articulations of all these 'attributes' intuitively associated with 'agency'. It is also highly relevant to ask how such changes would in turn impact on the liberal legal order, which presupposes, and locates at its core the unitary, intentional, rational, conscious, embodied, and speaking individual. And there will never be too many interdisciplinary conversations about these topics.

In the following pages, I would like to suggest a hypothesis about the manner we ask such questions, with methodological and substantive consequences. I would like to try rephrasing the question of human agency as a question about 'recalcitrance', or about 'excess' rather than as a question about 'control' or 'intentions'. From reading the various chapters of this book, I got the very subjective impression that there is something in human beings that machines will never succeed to either anticipate or regulate, something that happens in excess to the 'traces' we leave in

registers and databases (Durante), even if these traces are re-assigned to us as a destiny. That impression filled me with the irrecpressible joyful sensation that *potentially* – the intempestivity, spontaneity, unpredictability, that is, all these vital qualities which Hannah Arendt associated with natality – will always withstand *probability*.

This may appear counterintuitive given the current efforts – in terms of funding and ingenuity – deployed in both the public and the private sector in order to develop smart, intelligent, systems of detection, classification and forward-looking, evaluation of human behaviours, attitudes, preferences, propensities, etc. and to smooth human experiences and interactions in unprecedented ways. A recurring theme in the volume depicts human agency as unavoidably mediated by technology (Ihde, Verbeek). Intervening as 'intuitive and unobtrusive' technological cognitive interfaces, these technologies may enhance social legibility, self-reflexivity, the capacity and skill to evaluate alternative courses of action, and thus increase autonomy and accountability (Kallinikos). Yet – and this may be a specificity of the actual and forthcoming ICT interfaces which places them apart from ancient tools and instruments – they do so through humanely unintelligible algorithmic processes. Fundamental epistemic questions arise when humans implicitly give up the ambitions of modern rationality linking observed phenomena to their causes, and privilege an algorithmic – and, in this sense, post-modern – (ir)rationality, rendering the world *insignificant* but *predictable* according to a purely inductive (based on correlations) and highly effective statistical logic.

That the kind of knowledge emanating from algorithmic processes appears to escape traditional knowledge validation tests does not necessarily result in such knowledge being 'unilaterally' imposed on human agents though, and the norms (criteria of normality, desirability, dangerousness, needs, etc.) ensuing from the statistical recording of 'the real' will not unavoidably translate into uncontested or unconsciously implemented normativity. Human agency and human subjectivity oppose a series of 'recalcitrances' to their own previsibility, anticipation and preemption by autonomic computing systems and their precursors. Mapping the possible zones of recalcitrances, the places which shall remain untouched by autonomic computing never mind how broad and multimodal the reach of such systems would be, might well give a few indications about what human agency *is*, and of what it *can do*. At a time where efficiency, previsibility and risk minimization have become leitmotifs in most political and industrial agendas, one may also wonder about the function such recalcitrance may have in the project of a community of rights and as part of the normative metabolism of liberal democracies.

That the ingenuity of human behaviours will always, in part, escape both predictability and regulation by technology (Don Ihde) and the fact that the 'double hermeneutics' described by Don Ihde allows individuals to realize how machines profile them, and to adapt their behaviours accordingly (obeying or disobeying the norms of expectations 'of the machine'), leading to a more complex understanding of the epistemic processes at play,<sup>1</sup> leaves the question open of what the individual and collective meaning and value there is (if there is such value) in this escaping

ingenuity. The question is not absolutely trivial: should one continue to try and improve technologies that channel human behaviours and decrease the margins where such ingenuity may express, or should one rather privilege other projects, building on the idea that human ingenuity is indeed something that must be encouraged and protected, be it at the cost of absolute previsibility? Responding to such a question is indeed a fundamental precondition to set research agendas in an era of converging sciences and technologies (where neuro-sciences, ICTs, network technologies and the whole range of bio- and nano-technologies might soon be combined as to decrease the rate of 'recalcitrance' and of the associated spontaneity and unpredictability).

Recalcitrance does not necessarily presuppose a notion of control over what 'causes' our behaviours though. The lack of awareness and control over what causes their own actions is nothing new for human beings. Intentions and reasons are never the exclusive nor the ultimate causes of actions. 'The sense of control we have with regard to our own actions is an illusion, produced after the fact', Mireille Hildebrandt recalls. This, however, does not *ipso facto* expel the possibility for human agents to build and project their own motives, that is, to ascribe or give significance to their actions *as their own*. I would like to conjecture here that the 'production' – of motives, that is, of meaning and values – after the fact, is what matters for human agency, in spite of – or rather thanks to – the inherent belatedness of this 'production', its non-coincidence with and unfaithfulness to the actions we *motivate* after the facts. This distance between the facts or acts and the words and motivations expressed through the technology of language,<sup>2</sup> this 'inactuality', the unfilled gap between things and words affords human agents their *potentiality*,<sup>3</sup> which makes them escape determinations or remote controls enacted through technological interfaces (de Mul and van den Berg). This production of significance and value at a distance from the facts and acts is also what allows them to give account of themselves (Judith Butler) either in judicial Courts or in daily lives. The primacy of significance over causality has been advanced, implicitly, by Robert Musil (1956: 613), in his wonderful, unachieved novel written from 1921 until the author's death in 1942, *The Man without Qualities*<sup>4</sup>:

The motive is what drives me from signification to signification. Something happens, something is said: that increases the meaning of two human lives, that meaning reinforces their union; but what has happened, which physical or legal the event represents, that is unimportant, this is another issue.<sup>5</sup>

Although motives are not causes, they are what gives actions their meaning and value. However – except in a psychoanalytic context where answers are given to questions which have not preceedingly been uttered – in daily life, motives are best expressed when the agent is interpellated or addressed by another, or by others.

A series of questions immediately arise such as whether acknowledging the primacy of motivation (as significance, that is, as that which gives meaning and value to an act and as that which, when expressed by an agent giving account of

him or herself, contributes to the constitution of his or her identity) over causality would challenge the current privileged position that causality occupies in legal reasoning. Another inescapable question would be what exactly, in a context of autonomic computing, would be the role of language, verbalization and embodiment – another source of recalcitrance and relationality, allowing a consideration of human legal subjects as material bodies with embodied minds rather than as computable minds with absent bodies (Hyo Yoon Kang).

Many things and ideas remain to explore with regard to the *kinds of addresses* directed at individuals in an era of autonomic computing. Let's start from the most improbable scenario where autonomic computing, articulated with intelligent environments, succeeds in regulating human activities so that human conflicts, criminality and disobedience disappear – which, as Don Ihde explains, is mostly improbable – and which would then also dispel the need to interpellate one another, or to oblige or allow agents to give account of themselves in courts. The only 'other' to whom individuals would be called to give account would be the autonomic computing system itself, and this would probably not be through verbal interaction but through pre-conscious mutual attunement. Yet, it is not certain that subjects preexist *qua subjects* to their 'interpellation' by 'others', Althusser, Foucault, Lacan, Duster, Butler and a few others have argued. If it is the case that subjectivity is unavoidably relational (a matter of giving account and being recognized), what happens when the 'other' to which one has to give account of oneself is a system of autonomic computing? This is of course the most implausible scenario, as already mentioned, and its only merit is the merit one sometimes recognizes in caricatures or ideal types.

A second scenario, which is much closer to the current situation, is a scenario where operations of collection, processing and structuration of data for purposes of data-mining and profiling, helping human agents to cope with circumstances of uncertainty or relieving them from the burden of taking decision in routine situations, have become central to public and private sectors' activities. Such systems indeed interpellate human agents through the myriad of dis-embodied, decontextualized data-points or networks of localizations into actuarial tables of various kinds. I have depicted (Rouvroy), in this volume, the difficulty for individual agents to give account of themselves both individually and collectively whenever they are addressed through dispersed profiles constructed according to opaque algorithms ignorant of personal autobiography and of socially experienced communities. The question becomes, then, whether and how the legal order should preserve mechanisms whereby *motivations* can still be heard. The intensification of datamining and profiling, I have argued, brings forth an 'algorithmic normativity' which appears as a « natural » germination from the digital transcription and statistical analysis of 'reality', and therefore resists characterization as either spontaneous or artefactual. As such, the resulting norms elude usual tests both of epistemic validity and of political legitimacy. Yet, when embedded in systems of detection, classification and anticipative evaluation of human behaviours, data-mining and profiling methods indeed have governmental effects in the various spheres where they apply:

bypassing inter-individual interactions between gatekeepers or governants and individual subjects, they ease decision-making processes by dispensing from individualized evaluations of deserts, merits, abilities or needs. But such an 'irrational rationalization' (rendering the world predictable but insignificant), useful and emancipatory in certain circumstances, may become threatening for human agency whenever it deprives individuals from the possibility to give account of themselves to 'others' which are themselves capable of recalcitrance and therefore offering the subject a mirror allowing self-recognition as recalcitrant subjectivity.

What remains certain, anyway, is that the theme of 'autonomic computing and transformations of human agency', recalcitrant as it is itself to any kind of definitive conclusion, provides an ideal scene for the vitalizing confrontation of world versions and visions.

## Notes

- 1 This is also why – from the most trivial to the most complex technological *dispositive* – none of the 'autonomic' systems one may imagine will ever take over human intervention, according to Don Ihde.
- 2 See note 4 of the introduction by Mireille Hildebrandt.
- 3 On the notion of *potentiality*, which I believe is fundamental to pursue our inquiry into the impacts of autonomic computing for human agency, see Agamben (1999). See also the distinction made by Pierre Macherey, following Spinoza, between *potentia* (puissance) and *potestas* (pouvoir) in Macherey (2009).
- 4 Translations of *The Man Without Qualities* in English have been published by Ernst Kaiser and Eithne Wilkins in 1953, 1954 and 1960, and by Knopf in 1995.
- 5 My translation of 'Le motif, c'est ce qui me conduit de signification en signification. Quelque chose arrive, quelque chose est dit: cela accroît le sens de deux vies humaines, ce sens renforce leur union; mais ce qui se passe, quelle notion physique ou juridique l'événement représente, cela n'a aucune importance, c'est une toute autre affaire.'

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