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Editor

The Onlife Manifesto

Being Human in a Hyperconnected Era

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Image made from models used to track debris in Earth orbit. Of the approximately 19,000 man-made objects larger than 10 centimetres in Earth orbit as of July 2009, most orbit close to the Earth. Source: NASA Earth Observatory / Orbital Debris Program Office: http://commons.wikimedia.org/wiki/File:Space_Debris_Low_Earth_Orbit.png original publication date 12 September 2009.

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Introduction

Luciano Floridi

On the 8th of February 2013, *The Onlife Manifesto*¹ was released at an inaugural event held in Brussels by DG Connect, the European Commission Directorate General for Communications Networks, Content & Technology.²

The Manifesto was the outcome of the work of a group of scholars, organised by DG Connect, which I had the privilege to chair: Stefana Broadbent, Nicole Dewandre, Charles Ess, Jean-Gabriel Ganascia, Mireille Hildebrandt, Yiannis Laouris, Claire Lobet-Maris, Sarah Oates, Ugo Pagallo, Judith Simon, May Thorseth, and Peter-Paul Verbeek.

During the previous year, we had worked quite intensely on a project entitled *The Onlife Initiative: concept reengineering for rethinking societal concerns in the digital transition*.³ We decided to adopt the neologism “onlife” that I had coined in the past in order to refer to the new experience of a hyperconnected reality within which it is no longer sensible to ask whether one may be online or offline. Also thanks to a series of workshops organised by DG Connect, we had investigated the challenges brought about by the new digital technologies. We had debated the impact that ICTs are having on human life, and hence how one may re-engineer key concepts—such as attention, ownership, privacy, and responsibility—that are essential in order to gain the relevant and adequate framework within which our onlife experience may be understood and improved.

In the course of our investigations, we soon realised that the output of our efforts would have been more fruitful by summarising it in a short document—which soon became known as *The Onlife Manifesto*—and a series of short commentaries

¹ For the English electronic version and the translations of the *Manifesto* in French, German and Italia, please visit <http://ec.europa.eu/digital-agenda/en/onlife-manifesto>.

² DG Connect manages *The Digital Agenda* of the EU. For further information see <http://ec.europa.eu/digital-agenda/en/inaugural-event>.

³ The website of the project is available at <http://ec.europa.eu/digital-agenda/en/onlife-initiative>.

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(volunteered by some of us) and longer essays (contributed by each of us) that would explain and position *The Manifesto* within the current debates on Information and Communication Technologies (ICTs).

The inaugural event represented the official opening of the public discussion of our work. Many more public meetings and international presentations followed.⁴ As a result, this book is actually a synthesis of the research done in 2012 and the feedback received in 2013.

The book is organised in such a way as to give priority to *The Onlife Manifesto*. This is the document around which the rest of the book revolves. It is followed by eight short commentaries by Ess, my self, Ganascia, Hildebrandt, Laouris, Pagallo, Simon, and Thorseth. The next chapter is the background document. This contains the material that was used to start and frame the conversations during the initial phases of the project. There follow 12 chapters. In them, members of the group, myself included, have presented some of the ideas that guided our contribution to the *Manifesto*. Although each chapter may be read independently of the rest of the book, it is a modular part of the scaffolding that led to the *Manifesto*. A short conclusion, which is more a “to be continued”, ends the book. In terms of authorship, any material that is not explicitly attributed to some author is to be attributed to the whole group, as a collaborative work, endorsed by each of us.

So much for the outline of the project. I shall not add any further details because these can be found in the background document. In terms of an overview of the book’s contents, in the following pages we argue that the development and widespread use of ICTs are having a radical impact on the human condition. More specifically, we believe (see the Preface that introduces *The Manifesto*) that ICTs are not mere tools but rather environmental forces that are increasingly affecting:

1. our self-conception (who we are);
2. our mutual interactions (how we socialise);
3. our conception of reality (our metaphysics); and
4. our interactions with reality (our agency).

In each case, ICTs have a huge ethical, legal, and political significance, yet one with which we have begun to come to terms only recently.

We are also convinced that the aforementioned impact exercised by ICTs is due to at least four major transformations:

- a. the blurring of the distinction between reality and virtuality;
- b. the blurring of the distinction between human, machine and nature;
- c. the reversal from information scarcity to information abundance; and
- d. the shift from the primacy of stand-alone things, properties, and binary relations, to the primacy of interactions, processes and networks.

The impact summarised in (1)–(4) and the transformations behind such an impact, listed in (a)–(d), are testing the foundations of our philosophy, in the following

⁴ For a description see <http://ec.europa.eu/digital-agenda/onlife-news>. Other meetings are listed here: <https://ec.europa.eu/digital-agenda/en/past-meetings>.

sense. Our perception and understanding of the realities surrounding us are necessarily mediated by concepts. These work like interfaces through which we experience, interact with, and semanticise (in the sense of making sense of, and giving meaning to), the world. In short, we grasp reality through concepts, so, when reality changes too quickly and dramatically, as it is happening nowadays because of ICTs, we are conceptually wrong-footed. It is a widespread impression that our current conceptual toolbox is no longer fitted to address new ICT-related challenges. This is not only a problem in itself. It is also a risk, because the lack of a clear conceptual grasp of our present time may easily lead to negative projections about the future: we fear and reject what we fail to semanticise. The goal of *The Manifesto*, and of the rest of the book that contextualises, is therefore that of contributing to the update of our conceptual framework. It is a constructive goal. We do not intend to encourage a philosophy of mistrust. On the contrary, this book is meant to be a positive contribution to rethinking the philosophy on which policies are built in a hyperconnected world, so that we may have a better chance of understanding our ICT-related problems and solving them satisfactorily. Redesigning or reengineering our hermeneutics, to put it more dramatically, seems essential, in order to have a good chance of understanding and dealing with the transformations in (a)–(d) and hence shape in the best way the novelties in (1)–(4). It is clearly an enormous and ambitious task, to which this book can only aspire to contribute.

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Part I
The Onlife Manifesto

The Onlife Manifesto

The Onlife Initiative

Preface The deployment of information and communication technologies (ICTs) and their uptake by society radically affect the human condition, insofar as it modifies our relationships to ourselves, to others and to the world. The ever-increasing pervasiveness of ICTs shakes established reference frameworks through the following transformations¹:

- i. the blurring of the distinction between reality and virtuality;
- ii. the blurring of the distinctions between human, machine and nature;
- iii. the reversal from information scarcity to information abundance; and
- iv. the shift from the primacy of entities to the primacy of interactions.

The world is grasped by human minds through concepts: perception is necessarily mediated by concepts, as if they were the interfaces through which reality is experienced and interpreted. Concepts provide an understanding of surrounding realities and a means by which to apprehend them. However, the current conceptual toolbox is not fitted to address new ICT-related challenges and leads to negative projections about the future: we fear and reject what we fail to make sense of and give meaning to.



In order to acknowledge such inadequacy and explore alternative conceptualisations, a group of 15 scholars in anthropology, cognitive science, computer science, engineering, law, neuroscience, philosophy, political science, psychology and sociology, instigated the *Onlife Initiative*, a collective thought exercise to explore the policy-relevant consequences of those changes. This concept reengineering exercise seeks to inspire reflection on what happens to us and to re-envision the future with greater confidence.

This *Manifesto* aims to launch an open debate on the impacts of the computational era on public spaces, politics and societal expectations toward policymaking in the Digital Agenda for Europe's remit. More broadly, this *Manifesto* aims to start

¹ Those transformations are fully described in the Onlife Initiative Background document available on <https://ec.europa.eu/digital-agenda/en/onlife-initiative>.

a reflection on the way in which a hyperconnected world calls for rethinking the referential frameworks on which policies are built. This is only a beginning...

1 Game Over for Modernity?

Ideas that hinder policy making's ability to tackle the challenges of a hyperconnected era



§ 1.1 Philosophy and literature have long challenged and revised some foundational assumptions of modernity. However, the political, social, legal, scientific and economic concepts and the related narratives underlying policymaking are still deeply anchored in questionable assumptions of modernity. Modernity has indeed—for some or many—been an enjoyable journey, and it has borne multiple and great fruits in all walks of life. It has also had its downsides. Independently of these debates, it is our view that the constraints and affordances of the computational era profoundly challenge some of modernity's assumptions.



§ 1.2 Modernity has been the time of a strained relationship between humans and nature, characterised by the human quest to crack nature's secrets while at the same time considering nature as a passive endless reservoir. Progress was the central utopia, coupled with the quest for an omniscient and omnipotent posture². Developments in scientific knowledge (thermodynamics, electromagnetism, chemistry, physiology...) brought about an endless list of new artefacts in all sectors of life. Despite the deep connection between artefacts and nature, an alleged divide between technological artefacts and nature continues to be assumed. The development and deployment of ICTs have contributed enormously to blurring this distinction, to the extent that continuing to use it as if it were still operational is illusory and becomes counterproductive.



§ 1.3 Rationality and disembodied reason were the specifically modern attributes of humans, making them distinct from animals. As a result, ethics was a matter of rational and disembodied autonomous subjects, rather than a matter of social beings. And responsibility for the effects brought about by technological artefacts was attributed to their designer, producer, retailer or user. ICTs challenge these assumptions by calling for **notions of distributed responsibility**.

§ 1.4 Finally, modern worldviews and political organisations were pervaded by mechanical metaphors: forces, causation and, above all, control had a primary importance. Hierarchical patterns were key models for social order. Political organisations were represented by Westphalian States, exerting sovereign powers within their territory. Within such States, legislative, executive and judiciary powers were deemed to balance each other and protect against the risk of power abuse. By enabling multi-agent systems and opening new possibilities for direct democracy, ICTs destabilize and call for rethinking the worldviews and metaphors underlying modern political structures.



² By posture, we mean the dual notion of stance *and* posing, or, in other words, of occupying a position *and* being seen occupying it.

2 In the Corner of Frankenstein and Big Brother

Fears and risks in a hyperconnected era

§ 2.1 It is noteworthy that **Cartesian doubt**, and related suspicions about what is perceived through human senses, have led to an ever-increasing reliance on control in all its forms. In modernity, knowledge and power are deeply linked to establishing and maintaining control. Control is both sought and resented. Fears and risks can also be perceived in terms of control: too much of it—at the expense of freedom—or lack of it—at the expense of security and sustainability. Paradoxically, in these times of economic, financial, political, and environmental crisis, it is hard to identify who has control of what, when, and within which scope. Responsibilities and liabilities are hard to allocate clearly and endorse unambiguously. Distributed and entangled responsibilities may wrongly be understood as a license to act irresponsibly; these conditions may further tempt business and governmental leaders to postpone difficult decisions and thereby lead to loss of trust.

§ 2.2 Experiencing freedom, equality and otherness in public spheres becomes problematic in a context of increasingly mediated identities and calculated interactions such as profiling, targeted advertising, or price discrimination. The quality of public spheres is further undermined by increasing social control through mutual or lateral surveillance (*souveillance*), which is not necessarily better than "big brother" surveillance, as increasingly cyberbullying shows.

§ 2.3 The abundance of information may also result in cognitive overload, distraction, and amnesia (the forgetful present). New forms of systemic vulnerabilities arise from the increasing reliance on informational infrastructures. Power games in online spheres can lead to undesirable consequences, including disempowering people, through data manipulation. The repartition of power and responsibility among public authorities, corporate agents, and citizens should be balanced more fairly.

3 Dualism is Dead! Long Live Dualities!

Grasping the challenges

§ 3.1 Throughout our collective endeavour, a question kept coming back to the front stage: "what does it mean to be human in a hyperconnected era?" This foundational question cannot receive a single definitive answer, but addressing it has proven useful for approaching the challenges of our times. We think that handling these challenges can best be done by privileging dual pairs over oppositional dichotomies.

3.1 *Control and Complexity*



§ 3.2 In **the onlife-world**, artefacts have ceased to be mere machines simply operating according to human instructions. They can change states in autonomous ways and can do so by digging into the exponentially growing wealth of data, made increasingly available, accessible and processable by fast-developing and ever more pervasive ICTs. Data are recorded, stored, computed and fed back in all forms of machines, applications, and devices in novel ways, creating endless opportunities for adaptive and personalised environments. Filters of many kinds continue to erode the illusion of an objective, unbiased perception of reality, while at the same time they open new spaces for human interactions and new knowledge practices.

§ 3.3 Yet, it is precisely at the moment when an omniscience/omnipotence posture could be perceived as attainable that it becomes obvious that it is a chimera, or at least an ever-moving target. The fact that the environment is pervaded by information flows and processes does not make it an omniscient/omnipotent environment. Rather, it calls for new forms of thinking and doing at multiple levels, in order to address issues such as ownership, responsibility, privacy, and self-determination.

§ 3.4 To some extent, complexity can be seen as another name for contingency. Far from giving up on responsibility in complex systems, we believe that there is a need to re-evaluate received notions of individual and collective responsibility. The very complexity and entanglement of artefacts and humans invite us to rethink the notion of responsibility in such distributed socio-technical systems.

§ 3.5 Friedrich Hayek's classical distinction between *kosmos* and *taxis*, i.e., evolution vs. construction, draws a line between (supposedly natural) spontaneous orders and human (political and technological) planning. Now that artefacts *taken globally* have come to escape human control, even though they originated in human hands, biological and evolutionary metaphors can also apply to them. The ensuing loss of control is not *necessarily* dramatic. Attempts to recover control in a compulsive and unreflexive manner are an illusory challenge and are doomed to fail. Hence, the complexity of interactions and density of information flows are no longer reducible to *taxis* alone. Therefore, interventions from different agents in these emerging socio-technical systems require learning to distinguish what is to be considered as *kosmos-like*, i.e., as a given environment following its evolutionary pattern, and what is to be considered as *taxis-like*, i.e., within reach of a construction responding effectively to human intentions and/or purposes.



3.2 *Public and Private*

§ 3.6 The distinction between public and private has often been grasped in spatial and oppositional terms: the home versus the *agora*, the private company versus the public institution, the private collection vs. the public library, and so forth. The deployment of ICTs has escalated the blurring of the distinction when expressed in spatial and dualistic terms. The Internet is an important extension of the public



space, even when operated and owned by private actors. The notions of fragmented publics, of third spaces, and of commons, and the increased focus on use at the expense of ownership all challenge our current understanding of the public-private distinction.

§ 3.7 Nevertheless, we consider this distinction between private and public to be more relevant than ever. Today, the private is associated with intimacy, autonomy, and shelter from the public gaze, while the public is seen as the realm of exposure, transparency and accountability. This may suggest that duty and control are on the side of the public, and freedom is on the side of the private. This view blinds us to the shortcomings of the private and to the affordances of the public, where the latter are also constituents of a good life.



§ 3.8 We believe that everybody needs *both* shelter from the public gaze *and* exposure. The public sphere should foster a range of interactions and engagements that incorporate an empowering opacity of the self, the need for self-expression, the performance of identity, the chance to reinvent oneself, as well as the generosity of deliberate forgetfulness.

4 Proposals to Better Serve Policies

Conceptual Shifts with Policy-relevant Consequences for a Good Onlife Governance

4.1 *The Relational Self*

§ 4.1 It is one of the paradoxes of modernity that it offers two contradictory accounts of what the self is about. On the one hand, in the political realm, the self is deemed to be *free*, and “free” is frequently understood as being autonomous, disembodied, rational, well-informed and disconnected: an individual and atomistic self. On the other hand, in scientific terms, the self is an *object* of enquiry among others and, in this respect, is deemed to be fully analysable and predictable. By focusing on causes, incentives, or disincentives in an instrumental perspective, this form of knowledge often aims at influencing and controlling behaviours, on individual and collective levels. Hence, there is a constant oscillation between a political representation of the self, as rational, disembodied, autonomous and disconnected, on the one hand, and a scientific representation of the self, as heteronomous, and resulting from multifactorial contexts fully explainable by the range of scientific disciplines (social, natural and technological).

§ 4.2 We believe that it is time to affirm, *in political terms*, that our selves are *both* free and social, i.e., that freedom does not occur in a vacuum, but in a space of affordances and constraints: together with freedom, our selves derive from and aspire to relationships and interactions with other selves, technological artefacts, and the rest of nature. As such, human beings are “free with elasticity”, to borrow

an economic notion. The contextual nature of human freedom accounts both for the social character of human existence, and the openness of human behaviours that remain to some extent stubbornly unpredictable. Shaping policies in the remit of the Onlife experience means resisting the assumption of a rational disembodied self, and instead stabilising a political conception of the self as an inherently relational free self.

4.2 *Becoming a Digitally Literate Society*

§ 4.3 The utopia of omniscience and omnipotence often entails an instrumental attitude towards the other, and a compulsion to transgress boundaries and limits. These two attitudes are serious hurdles for thinking and experiencing public spheres in the form of plurality, where others cannot be reduced to instruments, and where self-restraint and respect are required. Policies must build upon a critical investigation of how human affairs and political structures are deeply mediated by technologies. Endorsing responsibility in a hyperconnected reality requires acknowledging how our actions, perceptions, intentions, morality, even corporality are interwoven with technologies in general, and ICTs in particular. The development of a critical relation to technologies should not aim at finding a transcendental place outside these mediations, but rather at an immanent understanding of how technologies shape us as humans, while we humans critically shape technologies.

§ 4.4 We have found it useful to think of re-evaluating these received notions and developing new forms of practices and interactions *in situ* in the following phrase: “building the raft while swimming”.

4.3 *Caring for Our Attentional Capabilities*

§ 4.5 The abundance of information, including “big data” developments, induce major shifts in conceptual and practical terms. Earlier notions of rationality presumed that accumulating hard-won information and knowledge would lead to better understanding and thereby control. The encyclopaedic ideal is still around, and the focus remains primarily on adapting our cognitive capacities *by expanding* them in hopes of keeping up with an ever-growing infosphere. But this endless expansion is becoming ever less meaningful and less efficient in describing our daily experiences.

§ 4.6 We believe that societies must protect, cherish and nurture humans’ attentional capabilities. This does not mean giving up searching for improvements: that shall always be useful. Rather, we assert that attentional capabilities are a finite, precious and rare asset. In the digital economy, attention is approached as a commodity to be exchanged on the market place, or to be channelled in work processes. But this instrumental approach to attention neglects the social and political dimensions of it, i.e., the fact that the ability and the right to focus our own attention is a critical and necessary condition for autonomy, responsibility, reflexivity, plurality, engaged

presence, and a sense of meaning. To the same extent that organs should not be exchanged on the market place, our attentional capabilities deserve protective treatment. Respect for attention should be linked to fundamental rights such as privacy and bodily integrity, as attentional capability is an inherent element of the relational self for the role it plays in the development of language, empathy, and collaboration. We believe that, in addition to offering informed choices, the default settings and other designed aspects of our technologies should respect and protect attentional capabilities.

§ 4.7 In short, we assert that more collective attention should be paid to attention itself as a inherent human attribute that conditions the flourishing of human interactions and the capabilities to engage in meaningful action in the onlife experience.

This Manifesto is only a beginning...

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