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The Social Lie of Information, John Seely Brown and Paul Duguid (Boston, Mass.: Harvard Business School Press, 2000. pp. x + 336, h/b)

The information society is full of strange paradoxes. "On the Internet, nobody knows you're a dog", yet individual privacy has never been more at risk. Electronic texts may be threatening the printed book, but the first flagship of e.com has been a book retailer. ICT (digital information and communication technology) has created new kinds of intellectual richness and expertise as well as unprecedented forms of techno-disabilities and poverty. The Web requires ever better educated people, although it may be run by artificial agents. Cyberspace is said to be open, free, democratic and friendly, yet networks are protected by firewalls, mailing lists are moderated, sites and databases require userids and passwords, and our vocabulary has been expanded by words like "spamming" and "flaming". The new frontier of long-distance education and tailored entertainment also demands increasing parental care to avoid ubiquitous pornography (would you allow your children to search for Star Wars' "Princess Leila" on the Web?). The list could easily be expanded. The crucial point is how we understand these difficulties. *The Social Life of Information* (http://www.slofi.com/) is a timely, well-informed and very interesting attempt to explain how ICT and the infosphere should develop to avoid problems of this kind.

John Seely Brown and Paul Duguid have a philosophy of information to defend and their perceptive diagnosis contains the seeds of a valuable prescription. The infosphere is the most plastic reality with which humanity has ever dealt. Its pioneering culture has naturally fascinated the American mind, but in the past spatial metaphors have been slightly misleading. For we are not merely exploring or taming but rather creating and moulding a whole digital universe whose worth and defects mirror our interests, wishes and faults. How we create, design, employ and regulate the powerful, digital resources and technologies at our disposal is not only of vital importance for the shape that our environment is taking, but also a matter of profound moral responsibility towards the present world and future generations. What matters is not so much moving bits instead of atoms—this is an outdated, communication-based interpretation of the information society that owes too much to massmedia sociology—as the far more radical fact that the very essence and fabric of reality is changing. The information society is better seen as a neo-manufacturing society in which raw materials and energy have been superseded by the new digital gold. Not just communication and transactions then, but the creation, design and management of information are the keys to its proper understanding. From this neo-manufacturing perspective, the main thesis of the book can be introduced as an ethical reminder: complete ontological responsibility does not entail unregulated freedom. Two simple rules should guide our divine acts of information creation and design: there is no information in isolation, and information in context may still be worthless without the careful intelligence required to transform it into knowledge and meaningful ideas. In the first chapter, Brown and Duguid convincingly argue that contemporary datacentrism fails to respect these fundamental constraints. The authors do not defend some kind of Heideggerian search for the authentic, over and above the infosphere. They know that reality is not hiding in the digital, rather, is being digitised. Their warning is that merely informational aspects of life are becoming overimportant at the expense of what is not or cannot be reduced to information: the meaning, understanding, knowledge and epistemic practices that constitute their social contexts. There is a dangerous shift towards a superficial datafication and information-based re-definition of the world of experience; what can be done, what can be wanted, what can be threatening etc. may become just types of information: sexual, gastronomic, musical, visual, textual and so forth. Even intelligence may appear as mere data processing, with strong AI trying to reproduce as much as to redefine

human understanding, although guesswork, judgement, experience, intuition or discretion cannot be reduced to smart algorithms.

The nineteenth century's death of God, understood as the transcendental guarantee of an objective, cosmological semantics, has been followed by a "second wave" of total humanism, which in turn is now being proclaimed moribund by a data-based "third wave" that predicts the death of politics, of government, of institutions, of cities and nation-states or transnational organisations and other social intermediaries as we know them, in a sort of destructuring and boundless hypertextualisation of human relations. The result of this datacentrism has been a plethora of hypes and some simplistic obituaries that the authors aptly label the 6Ds. Demassification, decentralisation, denationalisation, despacialisation, disintermediation and disaggregation have all been predicted as immanent phenomena. Wrongly, they argue. For info-enthusiasts correctly acknowledge ICT as one of the most powerful forces at work in society, but are mistaken when they view the new landscape it makes possible as constituted merely by information and exclusively oriented to the individual, implicitly appealing to Moore's Law (computational power will double every eighteen months) as a panacea for any present and future social problem.

The mistake rests on the blinding simplicity of the CD vs. vinyl interpretative model of technological evolution. Why CDs have not replaced the more primitive music cassettes? By trying to solve old problems, technological solutions often end splitting, re-shaping and diversifying them. In this evolutionary sense, killer applications are rare exceptions. BiC[®] produces "modern" ball pens that have not decreed the death of "old" fountain pens, and "old" disposable shavers that are not deadly challenged by more "modern" electric razors. Pencils come in a variety of forms, swatches are analogue but trendy and scooters have not replaced bicycles. Technological evolution is usually a creative process of binary fission.

The temptation is to condemn any technological eliminativism (the naï ve CD-vinyl model) as short-sighted, but with an insightful twist Brown and Duguid speak instead of a tunnel-vision, which may be partly justifiable, but is dangerously limited by its disregard for the surrounding environment. As they suggest, the way forward may be, paradoxically, to look not ahead, but around. Their philosophy of information is a kind of lateral ecologism. Too often contextual factors are so pervasive to become unnoticeable to hypermetric futurologists. Yet, the importance of the supporting periphery, i.e. the social context in which information flourishes and evolves into knowledge, can be overseen but not overestimated (one may prefer an electric razor only if easy and constant access to a cheap electric source is available; scooters presuppose petrol stations, fuel and garages, and so on).

From chapter two onwards, Brown and Duguid analyse six specific domains in which technological eliminativism mistakes gradual evolutions, mutations and adaptations for mere catastrophic changes. The discussion is carefully and systematically based on actual cases and it never turns into the boring collection of pointless, if entertaining, anecdotes, so common in the literature on the social impact of ICT. The worlds of negotiation, information brokering and artificial agents, of the home office and tele-jobs, of work organisation, of learning, of research and innovation, of the electronic media and of long-distant education are thoughtfully assessed, with a wealth of brilliant intuitions. In each case, the authors show how ICT may run the risk of throwing away the surface constraints (e.g. the dangerous sharpness of the old razor) with the substantial hidden resources (e.g. the old razor's total independence of any energy technology). In the north of the world, people live in an increasingly designed reality. The Social Life of Information does not contain a gloomy catalogue of pre-conceived solutions or neo-luddite prescriptions of what we ought to do. It is a circumstantial and constructive reminder of the importance of all the semantic and social constraints that we need to respect in order to build a better infosphere. It should be read by anyone interested in understanding the future.

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