1 Towards a New Species?

With current technological and scientific breakthroughs, artifacts are being aligned much closer to the human body and even being merged with it. The resultant "cyborgs"² can take on any one of a number of forms, dependant on the balance between human and technological components. The case of cyborgs, part man part technology, shows very well the main values of our society, the direction it is heading in whilst acting according to these values, and the kind of new human or non human entity we are about to build. Nowadays, the main value, though not frequently formulated, which seems to provide the background for all these techno-scientific developments, is our ability to access and deal with information. In the so-called "information society", it is assumed by most that the quicker any access is, the better. It follows that ultimately the best way to increase the speed of access is for humans to merge with technology, thereby restricting or even removing the inherent human-technology interface delays. In Cerqui and Warwick (2005) the focus was on upstream science and technology aspects, hence these are not developed further here. What we are more concerned with in this chapter is the downstream translation of the new value into empirical results: namely the new species we humans are about to create.

The goals of the information society - connecting people³ - are about to be realized with people physically and mentally becoming part of the network. It is the view of Mazlish (1993) that humankind crossed four important revolutionary epochs during its history. The first - Copernician - defined a continuity between humanity and nature; the second - Darwinian - indicated that humans are alive in the same sense as every other living being on earth; the third – related to Freud – linked the internal continuity inside humans with the discovery of the principles of psychology. The fourth - the one in which we are currently living - defines us as part of something much broader. A kind of collective intelligence may emerge spontaneously, as soon as people are connected in a big network, the same way intelligence emerges in individuals with the connection of neurons. According to Dyens, the human condition is an old-fashioned concept and he suggests we talk about the "intelligent condition" (2000, 20). In his view, humans are about to disappear as individuals, becoming part of an "intelligence-system" where the human is just part of a larger organism, a "'plural' being, built with skin, ideas, insects, organs, machines and cultures" (2000, 158). Those who claim that humankind, as we currently know it, has reached its limits and must now cross a threshold (see for

²There are several definitions of cyborgs, and for some of them technology does not need to merge with us to create cyborgs. For instance, according to Clark (2003), we are already cyborgs when we use non implanted technological devices. Moreover, the first definition, given by Clynes and Kline (1960) included other kinds of modifications than those related to technological devices – biochemical changes inducted by pharmacology for instance. We use here the word in his restrictive meaning, for describing organisms that are partly machine and partly human.

³The World Summit on Information Society (Geneva, 2003; and Tunis, 2005) is a very good illustration of the belief that connecting people is supposed to solve every kind of problems in the world.

instance Arnould, 2001, or Soriano, 2001) might be right. According to them, a new being, modified in its flesh is about to be born. Contrary to what might be thought (Sfez, 1995), this phenomenon is not limited to biotechnologies: information technologies are also part of human modification, even though many authors dissociate biotechnologies from other kind of technologies, as if they had a different fundamental logic. For instance, Mandosio claims that post-humankind could be the result of two different kinds of technologies. The first one is related to genetics and the second one to cyborgs. In his view, cyborgs are less dangerous because they are reversible and because they not genetically transmissible (2000, 190). He argues that there is a big difference between these technologies and concludes that robotics, genetics, and nanotechnologies should not be mixed up in their analysis. He especially denounces Joy (2000) who argues that every organism created by these technologies is able to reproduce itself. In reality, Joy seems to be right: there is only one fundamental logic which aims at creating life. Therefore, the information society has not to be defined just by information technologies: it is a mixture of information technologies, biotechnologies (Castells, 1998; Escobar, 1994; Guillebaud, 2001) and emerging nanotechnologies as they share a common fascination for information defined as the code for mastering everything (see Cerqui, 2004). Defined in this way, the information society has a main goal of creating new entities, more able, than present-day humans, to deal with information. This was in fact announced several years ago when Bureau foresaw that our future would be intrinsically linked to the complexity brought about by computers (1969, 543), even if he probably did not foresee that we would merge with them.

According to Beaune (1980), the intelligence of machines is synonymous with death because it means coldness in the heart of life's warmness. On the contrary, it is for many researchers a way to increase the length of life, and even more for approaching immortality. It shifts the boundaries of life while creating inanimate entities or pushing death away as far as possible.

Biotechnologies, information technologies, nanotechnologies, and cognitive science are clearly related to immortality, in spite of apparent differences between them. Concerning biotechnologies, this is obvious as it involves the mastering of life, in its material aspects. But this kind of immortality seems to have become less attractive that the immortality of mind. Moreover, biotechnologies could become, because of their ability of transforming flesh, a tool to make the main ambitions of information technologists become real. Information will be directly integrated into humans, who will be part of a broader network of exchange, a kind of living cells of the Internet. Immortality has been defined for a long time in terms of physical life or in terms of a soul. It is nowadays increasingly defined in terms of information and mind. The idea is that our minds could be uploaded into computers (Moravec, 1988). This idea even seems not to be considered as totally incompatible with the Christian faith: Crevier (1993) argues that, considering that Christ has risen from the dead into a new body, there is no reason why we could not live in a machine. Augé stressed that life and death are paradoxically always thought to emanate from the same starting point: the body (2001, 441), but it seems more correct to say that both are increasingly thought to exist without the body.