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A FAUSTIAN EXCHANGE: WHAT IS TO BE HUMAN IN THE ERA OF UBIQUITOUS TECHNOLOGY?

## Cultural 'demons' as future builders

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Abstract Usually, the shape of the future is seen as the result of a cultural flow that, according to some privileged cultural variable, like technology, goes undisturbed towards its own outcome. This is a quite naive attitude that has been very rarely successful. Both conventional technology and technology of the artificial show that, within culture, 'demons' are always active trying to exploit or even bypass standards in order to give birth to unexpected novelties. This is true within the pure technology area and even more in its artistic extensions. Therefore, no deterministic process is going on but, rather, a permanent remixing of chances that makes any prophecy impossible.

**Keywords** Culture · Artificial · Technology · Aesthetics · Standardization

## 1 Introduction

The main thesis of this paper is that our future and, particularly, the future relationships between human culture and technology is very hard to predict, if not impossible at all. While some general technological trends can reasonably be expected to emerge, cultural innovations cannot be easily predicted due, among the other reasons, to human attitude to find out new applications or modes of using technological devices or, if you prefer, to 'break the rules' of given standards. We will call people bearing this kind of human attitude as 'cultural demons' because of their unplanned and unpredictable emergence from society.

Nevertheless, in order to understand the above phenomenon, we focus on a special kind of technology that accompanies the history of human cultures since the antiquity and is very pervasive today: the technology of *naturoids*.

A naturoid can be defined as any technological object or process intentionally designed to reproduce a natural object or process by means of current technology. In other words, naturoids are all the devices that are usually named with two words: the word that designates a natural object followed by the adjective 'artificial'. Therefore, the class of naturoids covers a very large spectrum: for instance, it includes artificial organs and artificial trees, artificial senses and artificial intelligence, artificial snow and artificial light and so on. The main reason for such a conceptualization is that in all cases, the technology of naturoids is characterized by the effort to grasp, through a model, the core of a natural object or process trying to reproduce it by means of different materials and design strategies as compared to those adopted by the nature. In this sense, the technology of naturoids can easily be separated from the classical creative technology: the one that designs devices which, though exploiting the knowledge of nature, have no instances in the natural world, like cathode tube or phones, cars or pianos.

The fact is that users who have to deal with conventional technology devices—any general-purpose hardware like drills or scissors but even violins or pianos—can adopt them with a very large spectrum of freedom. In fact, a scissors does not tell to the users what and how he has to cut, nor a drill forces the user to pierce this or that and, more clearly, a musical instrument does not imply any piece of music. On the contrary, naturoids—it should enough to think of an artificial arm or even an artificial software or hardware generator of sound or voice—try to

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