THE UNFORESEEN

Michel Volle – The automatic pilot of a passenger aircraft keeps it in a state that is very stable but that minimises fuel consumption which is a major cost for an airline. In order to do this, it takes in data from sensors and continually adjusts the ailerons. For a human pilot, doing this would be as difficult as balancing a plate on the tip of a pin, that is to say, all but impossible. We can say that the automatic pilot program has expanded the realm of what is possible. Consider another example: if one automates a nuclear power station by programming a response to all the foreseeable incidents, it will nevertheless encounter unforeseen incidents because real life is more complex than can be foreseen. It is reckoned that such an incident arises on average once every three years. And during this period, the operators of the control room have nothing to do so that at the end of the three years, they will have lost all capacity for initiative. The best way to deal with this is therefore deliberately to automate the control room only in part, so that the operators have something to do from time to time. In this way, they will be able to act when an incident arises that nobody could foresee.

This leads us to a conclusion: as all that is repetitive is foreseeable, repetitive tasks that are physical or mental should be automated. The role of humans should concentrate on that which, not being foreseeable, requires judgement and initiative, that is to say in the formulation of new products and in relations with customers. Handicraft will therefore be replaced by mental work, and it is easy to guess what this will mean for jobs, for skills and for the organization of businesses. The intelligence that a computer program confers on an automated system is the encapsulation of an 'intelligence at one remove', that of the programmer, and not a supposed 'artificial intelligence'. The power of processors, the speed with which memory can be accessed and the capacity of networks makes this 'intelligence' extremely rapid, but such an automated system can do no more than what its programmer anticipated. It cannot respond to the unforeseen, nor interpret all the situations that will arise from the unlimited complexity of physical, social and human circumstance. It must therefore work in tandem with the 'intelligent reaction to crisis' that human beings have inherited from the hunter-gatherer ancestors.

Alloying copper and tin led to a new reality in our world: it led to the Bronze Age. Combining iron with carbon led to the Iron Age. The combination of the human mind and computers also leads to properties that differ from those of each constituent: it leads to a particular anthropology that we see in all its aspects, economic, psychological, sociological, cultural, etc. This is why it is useful to consider how we should think about an information society, i.e. one that is digitized, that might be hypothetically ideal as far as the well-being of

the population is concerned. As far as thought and action are concerned, this way of looking at things lets us establish a marker on the horizon to which we can aim, as Descartes might say, rather than go round in never-ending circles in the labyrinths of crisis.