Luca Tomassini, *Il grande salto. L'uomo, il digitale e la più importante evoluzione della nostra storia*, Luiss University Press, Rome, 2020

Luca Tomassini's book describes the "great leap" forward that humanity is making today. A "technological digital leap."
Although the year 2021 has no lack of international problems – the Covid-19 pandemic and the devastating effects of pollution on climate among them – that seem to cast doubt on humanity's progress, from a scientific point of view a new industrial revolution is taking place and can give grounds for optimism about our ability to build a better society.
The first industrial revolution, conventionally dated to 1750, was symbolized by the newly designed steam engine. The hallmark of the second industrial revolution, which began around 1850, was the development of the internal combustion engine. From 1950 to the present, however, we have seen numerous revolutions, all involving information and digital technology.
The "great leap," according to the author, concerns the digital transformation and represents "the most important evolution in human history."
The book's first chapter opens with "a reminder for the future" that human ingenuity and research are at the basis of every revolution: men and women are always at the center of the numerous "leaps forward" that have occurred throughout history.
Chapter two recounts "the experience that was missing" – that of the

most recent technological innovation, which has flourished and produced transformative results with unprecedented speed.
Chapter three concerns "pandemics" and "responses." The experience in which we are still immersed has revealed both the fragility of humanity, endangered by an invisible virus, and the strength of science, which is finding solutions in record time.
Chapter four offers readers a "glimpse of the future," opening the debate on ethical issues, the concept of responsibility and the moral dilemmas facing humanity, and not only in the field of artificial intelligence. "Can we talk about an algorithm having its own ethic, a morality specific to artificial intelligence?" wonders Tomassini. "Are there 'ethical' algorithms and 'criminal' algorithms?" The answer in both cases is no. "Any responsibility is exclusively our business, of human beings," argues Tomassini, who goes on to explain that the "moral issue" lies "in human choice and behavior, in our respect for others, for their privacy and their freedom."
In the fifth chapter, titled "Gaps to bridge," Tomassini presents the serious technological, age and skills gaps that determine the inequalities of our time, in addition to the economic imbalances already addressed by Thomas Piketty and other distinguished economists.
An important issue is the "digital divide," the persistent difference of opportunity between those who have access to the internet, and those who, for various reasons, do not.
Tomassini provides some interesting data on this gap: "According to the 2018 Lloyds Bank UK Consumer Digital Index, 8 percent of the UK population (equivalent to more than four million citizens) lacked basic digital skills, while 12 percent of adults had limited and rudimentary"; "in the U.S., 6 percent of the population lacks access to a fast connection."
Chapter six, dedicated to work, goes to the heart of the "great leap." Tomassini writes: "The world of work is, in all fields, the one that has perhaps been most affected and is expected to be further affected by the presence of ever more widespread technological innovation." This "intelligent revolution" is already under way: "production chains, the operating systems, work environments, urban areas, transmission and communication platforms are and will be intelligent."
Intelligence is therefore embedded in processes, but it is "through the deployment of an extremely pervasive digital-technological system" that "the emphasis is shifting to the individual himself, to the human being."
According to the author, we are heading towards evolved and, above all, flexible models. But on one condition: "It is human capital that replaces financial capital or, better, that substitutes intelligent machines as gold once did for money: it guarantees their value. Only by investing

in this [human] capital can the production system make the 'great leap' that has been required for some time." An interesting facet of this part of the discussion is the reference to the new professions that are reshaping society.
In chapters 7, 8, 9 and 10, the new technological instruments employed to make the great leap are well described.
The "digital re(e)volution" proceeds using data, artificial intelligence and 5G. However, technology is nothing without the human mind. According to Tomassini, in fact, the whole of humanity, faced with the largest and most important "evolutionary leap" that it has been experiencing in recent years, will be able to cope with change only thanks to human beings' inherent capabilities, which cannot possibly be replicated on a computer.
Tomassini's optimism, expressed in the book's final chapter, is not blind confidence about the way the world works, but is born from a perspective that focusses on humanity, the sole true protagonist of this leap and other leaps forward throughout history.
According to Tomassini, there will be no machine that will annihilate us or determine our behavior; it falls to us to recognize and, in the future, exploit paths open today, combining knowledge and action, research, and political and social commitment.
So-called "digital man" does not differ in any way from "wise man": same form, same physical organism, same intelligence, nothing that suggests a "biological break." The leap we are about to make, according to Tomassini, is "anthropological, cultural and social, as well as engineered and technological."
Tomassini thoughtful book underlines how change represents a continuous need for humanity. The objective, however, is not "to change in order to change, but to change in order to move forward, to develop."

Alessandro Albanese Ginammi
ISEM-CNR