

Foreword

by *Vittorio Carlei**

When Giuseppe first discussed this book with me, we actually started talking about something else. It is characteristic of the human mind to embark on reasoning and dialogues without adhering to a predetermined plan. Every word, every thought evokes images within us, driving us to new thoughts, new words. It's a flow we experience daily, a phenomenon that, until recently, seemed exclusive to humans. When we interact with others, our flow melds with theirs, altering its direction and quality. We meet people every day, and let's be honest, sometimes we feel enriched by these encounters, sometimes not so much. Meeting Giuseppe was like a meeting of three; it was as if we were discussing a mutual friend. This time, the third entity in our discussion was ChatGPT. Both of us being pioneers and enthusiasts of new technologies and innovation, the conversation naturally veered toward this topic, and the idea for this book was already in Giuseppe's flow, so he asked for my opinion and invited me into his stream.

I waited until the last possible moment to write this preface for several reasons: firstly, I work best under the pressure of a deadline; secondly, I needed time to observe and scrutinize what I needed to convey to others (so I waited for Giuseppe to finish the first draft); finally, I needed to find the right moment when I felt attuned to the flow that would line up the words.

This book speaks of many things, but most importantly, it signifies the realization that "something has changed." I had this thought while

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lecturing my students in Pescara, a university where I have been teaching for nearly twenty years, in my personal “coast to coast” with LUISS in Rome. During the lecture, as my mental flow merged with the course program, a question suddenly emerged from the confluence of flows, which I immediately posed to the classroom.

The course on Economics of Innovation primarily deals with paradigm shifts and the economies of scale introduced by new technologies; however, in discussing the LLMs, or large language models, we use with ChatGPT and other similar tools, the emerging paradigm shift is particularly subtle. Take, for example, the invention of the printing press. The cost of reproducing a book decreased dramatically with this invention (and even more with the advent of digital technologies, becoming almost zero). But how much did, and does, writing the first copy cost? I believe this book mainly speaks about this. How will the world of communication (and also of teaching) change now that generating content has become so fast and low-cost? Will we still write theses (hopefully not, or at least hopefully they will change profoundly)?

This question raises even more uncomfortable ones: How much will originality cost? Will it still have value? What will originality become in a world offering us the possibility to orchestrate a plethora of generative algorithms of all kinds? Maybe (as this book suggests), we will choose how much we want to be instrumentalists and how much conductors of this orchestra, in a world where technology provides us with increasingly complex and fast tools.

In writing this preface, I preferred to be an instrumentalist, even though I was tempted to use a generative algorithm up to the very end; but writing and reading one word after another is not only a cost but also a pleasure, especially when done for a friend and an important project.

Happy reading!