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MASTERING COMPUTERS

G. G. L. WRIGHT

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INTRODUCTION

The ascent of man into twentieth-century civilisation has been intricately bound up with the development of machines, from the five basic devices of the ancient Greeks – the lever, wheel, pulley, wedge and screw – to today's highly complex and interlinked technology. This development has not always occurred at a steady pace or with acceptable social consequences – the first Industrial Revolution, for instance, in the space of fifty years transformed Great Britain from an agricultural and village-based economy into an industrial town-based economy. And almost exactly a hundred years ago a spate of inventions occurred of particular significance to our subject – the first telephone in 1876, the first typewriter in 1879, the first commercial electricity service in 1882. We are now in the prelude of the second Industrial Revolution, one which is likely to have the same large-scale and not always desirable consequences as the first. At the heart of this revolution is a spate of invention and innovation associated with the computer, or the electronic digital computer to give it its formal title.

And yet, when the first computers were developed thirty-five years ago, there were influential and informed opinions (including, it is alleged, that of the founder of IBM, now the world's largest computer manufacturer by a very wide margin) that no more than a handful of these machines would ever be needed.

So what is it about the computer that makes it so different and so powerful? What makes it so versatile that it can become an integral part of the work of scientists, engineers, accountants and many other professional people and yet at the same time can enrich the leisure time of adults and children at home? Why is it that the computer, which has helped to take man to the Moon, is now being blamed as a threat to millions of jobs? This book sets out to answer such questions.