The Nature of Engineering

Dedication

This book is dedicated to the increasing number of young women who are studying for a degree in engineering. They are intelligent beings who will not be put off by the continual reference to man: they will appreciate that it would have been ridiculously pedantic to refer repeatedly to *homo sapiens*, 'he or she', and 'men or women'.

The Nature of Engineering

A philosophy of technology

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Preface

This essay is a contribution to the current debate about the impact of technology on our lives, the ethical problems arising therefrom, and the ways in which society can exercise control. In a democracy, such control is unlikely to be effective unless the public, Civil Service and politicians have a clear idea as to the nature of engineering and the conditions under which technologies develop and make their impact.

In recent years engineering students have been encouraged to think about these matters by the requirements for membership of the Council of Engineering Institutions. All universities and polytechnics include a subject called 'The Engineer in Society' in their degree courses. It is hoped that this book will be found useful as supplementary reading for these students.

The book contrasts the history of technology with that of science and attempts to highlight the essential features of technology in relation to other forms of knowledge. For this reason it has been subtitled 'A Philosophy of Technology'. The reasons why engineering spawns ethical problems in this century are examined, and the pros and cons of advanced technology *vis-à-vis* 'alternative' technology are discussed. The book concludes with a description of recent views on decision-making in the technological sphere.

I am most grateful to colleagues with whom I have discussed parts of the book, and in particular to my wife and David Blockley who have been kind enough to read the complete manuscript and make helpful suggestions. Gillian Davis deserves a special mention for her skill at deciphering my appalling handwriting and for her efficient typing.

G.F.C. Rogers
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