AccessionIndex: TCD-SCSS-V.20191101.003 Accession Date: 1-Nov-2019 Accession By: Jimmy Malone Object name: Computer Power and Human Reason from Judgement to Calculation Vintage: 1984 Synopsis: Joseph Weizenbaum, 2nd Edition, Published by Penguin Books.

Description:

Joseph Weizenbaum (1923-2008) was a German-American computer scientist and a professor at MIT. The Weizenbaum Award is named after him. He is considered one of the fathers of modern artificial intelligence (AI). In 1966 he created the natural language processing program ELIZA that could engage humans in a conversation, based on pattern matching, a precursor of chatbots. He also created the list processing programming language SLIP.

Weizenbaum was later critical of AI and computing technologies, as evidenced in this influential book, first published in 1976. This item is a second edition, published in 1984, with a revised preface.

Many thanks to Jimmy Malone for donating this item.

The homepage for this catalog is at: <u>https://www.scss.tcd.ie/SCSSTreasuresCatalog/</u> Click '*Accession Index*' (1st column listed) for related folder, or '*About*' for further guidance. Some of the items below are more properly part of the other categories of this catalog, but are listed here for convenience.

Accession Index	Object with Identification
	Computer Power and Human Reason from Judgement to Calculation, Joseph Weizenbaum, 2nd Edition, Published by Penguin Books. 1984.

References:

1. Wikipedia, *Joseph Weizenbaum*, see: <u>https://en.wikipedia.org/wiki/Joseph_Weizenbaum</u> Last browsed to on 1-Nov-2019.

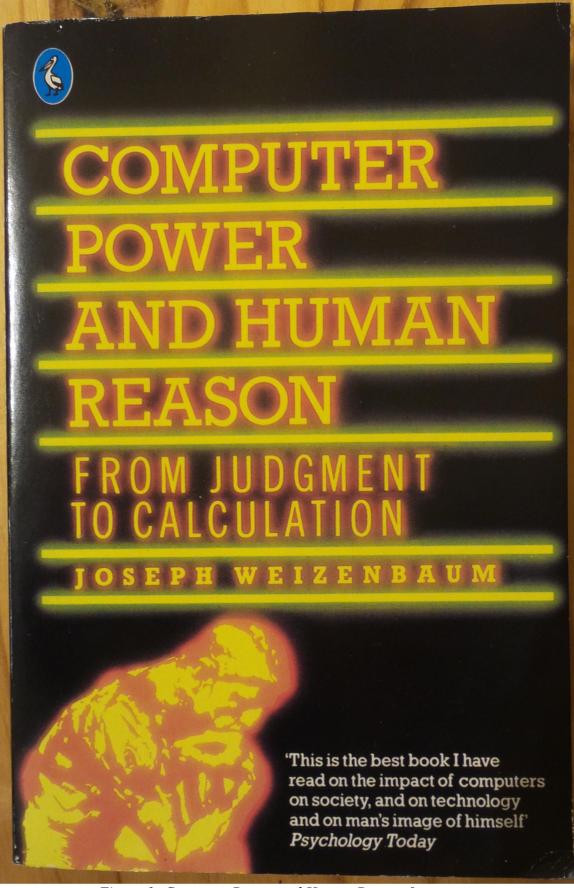


Figure 1: Computer Power and Human Reason front cover

'A towering milestone in the history of attempts to understand the significance of computers' – *Datamation*

Computer Power and Human Reason has fired enormous controversy and acclaim in America. Here Joseph Weizenbaum, one of the world's top computer scientists, provides us with an insider's critique of computers: what they can already do, what they cannot do and, most controversially, what they should not be used to do. Should we, for example, be working towards the use of computers as substitutes for doctors or psychotherapists?

Brilliantly and passionately argued, Professor Weizenbaum's book is unique in combining scientific and humanistic approaches to the many vital questions surrounding computers. It should be read by programmers, scientists and academics as well as by everyone interested in or concerned about the impact of today's technology on society, ourselves and our future world.

'Insight, expertise, anecdote and passion . . . it will stand for a long time as a definitive integration of technological and humanistic thought' – *American Mathematical Monthly*

'Superb... The work of a man who is struggling with the utmost seriousness to save our humanity from the reductionist onslaught of one of the most prestigious, active and richly funded technologies of our time' – Theodore Roszak in the *Nation*

Cover design by Penny Jones



Figure 2: Computer Power and Human Reason rear cover

PELICAN BOOKS

COMPUTER POWER AND HUMAN REASON

Joseph Weizenbaum is Professor of Computer Science and a member of the Laboratory of Computer Science at the Massachusetts Institute of Technology in the U.S.A. At the beginning of his career with computers, circa 1950, he worked on the Bush Differential Analyzer, an analogue computer, and helped to design and build a digital computer at Wayne University in Detroit, Michigan. In 1955, after a journeyman career as a programmer-analyst, he became a member of the General Electric team which designed and built the first computer system dedicated to banking operations. Among his technical contributions are the list processing system SLIP and the natural language understanding program ELIZA. Professor Weizenbaum has held academic appointments at Harvard University, the Technical University of Berlin and the University of Hamburg in Germany. In 1973 he was a Fellow of the Center for Advanced Studies in the Behavioral Sciences, at Stanford, California. He is a Fellow of the American Association for the Advancement of Science, a member of the New York Academy of Science and of the European Academy of Science. He is also a member of the National Advisory Council of the Fellowship of Reconciliation, the American branch of an international peace group, and of the Advisory Committee for Disarmament Programs of the American Friends Service Committee.

Figure 3: Computer Power and Human Reason synopsis page

JOSEPH WEIZENBAUM COMPUTER POWER **AND HUMAN** REASON FROM JUDGMENT TO CALCULATION PENGUIN BOOKS

Figure 4: Computer Power and Human Reason title page 1

PENGUIN BOOKS

Published by the Penguin Group 27 Wrights Lane, London W8 5TZ, England Viking Penguin Inc., 40 West 23rd Street, New York, New York 10010, USA Penguin Books Australia Ltd, Ringwood, Victoria, Australia Penguin Books Canada Ltd, 2801 John Street, Markham, Ontario, Canada L3R 1B4 Penguin Books (NZ) Ltd, 182-190 Wairau Road, Auckland 10, New Zealand

Penguin Books Ltd, Registered Offices: Harmondsworth, Middlesex, England

First published by W. H. Freeman and Company 1976 Published with a new preface in Pelican Books 1984 57910864

Copyright © W. H. Freeman and Company, 1976 Preface to the Pelican edition copyright © Joseph Weizenbaum, 1984 All rights reserved

> Made and printed in Great Britain by Richard Clay Ltd, Bungay, Suffolk

Except in the United States of America, this book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, re-sold, hired out, or otherwise circulated without the publisher's prior consent in any form of binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser



Figure 5: Computer Power and Human Reason title page 2

CONTENTS

PREFACE ix

INTRODUCTION 1

1. ON TOOLS 17

2. WHERE THE POWER OF THE COMPUTER COMES FROM 39

3. HOW COMPUTERS WORK 73

4. SCIENCE AND THE COMPULSIVE PROGRAMMER 111

5. THEORIES AND MODELS 132

6. COMPUTER MODELS IN PSYCHOLOGY 154

7. THE COMPUTER AND NATURAL LANGUAGE 182

8. ARTIFICIAL INTELLIGENCE 202

9. INCOMPREHENSIBLE PROGRAMS 228

10. AGAINST THE IMPERIALISM OF INSTRUMENTAL REASON 258 NOTES 281 INDEX 289

Figure 6: Computer Power and Human Reason table of contents page