

APPENDIX 3.—THE NEW COMPUTERIZED AGE

[From Saturday Review, July 23, 1966]

Few technological developments are formidable enough to mark turning points in human history. Two such phenomena have occurred in our time: the atomic bomb and the computer.

The implications of the bomb are beginning to be understood—its capacity for instant and total destruction has been demonstrated. The implications of the computer as yet are only faintly comprehended. That they will be awesome is already apparent. Indeed, as Dr. Jerome B. Wiesner, Dean of Science at the Massachusetts Institute of Technology and former science adviser to President Kennedy, wrote recently in *The New York Times*:

"The computer, with its promise of a millionfold increase in man's capacity to handle information, will undoubtedly have the most far-reaching social consequences of any contemporary technical development. The potential for good in the computer, and the danger inherent in its misuse, exceed our ability to imagine. * * * We have actually entered a new era of evolutionary history, one in which rapid change is a dominant consequence. Our only hope is to understand the forces at work and to take advantage of the knowledge we find to guide the evolutionary process."

The following special section is an attempt to identify some of these forces and to consider their implications. Nine authorities of diverse backgrounds discuss the possibilities and dangers of a computerized age. As their reports make clear, ultimately no area of human life will remain untouched by it. In the words of Automation Consultant John Diebold, whose article, "The New World Coming," introduces the section, "A complete new environment will exist."

The changes in business, government, science, education, and communications are occurring at a time when our technological capacity already has outstripped our understanding of many of its ramifications; when, as Marshall McLuhan, University of Toronto professor who often is quoted on the influence of electronic media (see Erik Barnouw's article), has said, the tumultuous pace of change already has resulted in an "information overload."

Decades ago, W. B. Yeats wrote, "The visible world is no longer a reality, and the unseen world is no longer a dream." More and more this will be true in the computerized age.

In addition to Mr. Diebold and Professor Barnouw, contributors to the section are: Gen. David Sarnoff, chairman of the board of the Radio Corp. of America; John W. Macy, Jr., Chairman of the U.S. Civil Service Commission; Patrick Suppes, director of the Institute for Mathematical Studies in the Social Sciences, Stanford University; Don D. Bushnell, associate director of the Brooks Foundation, and past president of the Association for Educational Data Systems; the Reverend Vernon F. Miller, pastor of the Goshen City, Ind., Church of the Brethren; John Tebbel, New York University journalism professor and author; and John Lear, Saturday Review's science editor.

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—The Editors.