

Alan M. Turing (author) and B. Jack Copeland (editor)
*The Essential Turing: Seminal Writings in Computing, Logic,
Philosophy, Artificial Intelligence, and Artificial Life
plus The Secrets of Enigma*
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REVIEW

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Alan Turing's collected works are contained in four volumes. The first three were published in 1992 and the last in 2001. But the existence of that collection has likely remained unnoticed by many, since the volumes bear different titles (*Pure Mathematics*; *Mechanical Intelligence*; *Morphogenesis*; and *Mathematical Logic*) and were prepared by different editors; consequently, many library catalogs do not list them as a set. There is also some overlap among the contents of the volumes, and considerable variation in the quality of editing.

It is thus most welcome that Turing's most important works have been gathered together in a single paperback volume of manageable size and modest price, edited by a distinguished historian of computer science. Its subtitle, "Seminal Writings in Computing, Logic, Philosophy, Artificial Intelligence, and Artificial Life, plus the Secrets of Enigma", accurately describes both its contents and the breadth of Turing's intellect.

The volume begins with a brief sketch of Turing's life. Following that are sixteen texts by Turing and one by Patrick Mahon, including not only published papers, but items of correspondence and transcripts of lectures. They are organized into four groups, each prefaced by a detailed and informative introductory note by the editor.

The first section, Computable Numbers, begins with Turing's earliest and most influential publication, his 1936 paper "On Computable Numbers, with an Application to the Entscheidungsproblem", in which he analyzed the operations involved in human computational procedures and described how to construct a universal finite-state machine (with an unbounded input/output tape) that is capable of carrying