

and mathematics are the only ones taken seriously now, and form the main focus of this book. The editors say that “Isaac Newton was *the* giant of science in the seventeenth and eighteenth centuries, just as James Clerk Maxwell was *the* giant of science during the later nineteenth century”. I must admit that I disagree with this rating of Maxwell. *The* giant of nineteenth century science was Darwin. Newton invented physics. Maxwell worked out applications of it. Newtonian physics have, of course, been overtaken by Einstein, but his ideas still underlie most general concepts of science. It is intriguing to think what Newton would have made of modern physics and mathematics. His theological and chronological writing was, after all, an attempt to bring scientific certainty into those fields. Modern mathematics and physics have, instead, adopted uncertainty, and are much closer to Zen Buddhism than to Newton’s monotheistic certainty.

Libraries catering for academic work in the history and philosophy of science will most certainly want this book. It supplements and develops the chapters in the previous edition rather than superseding them, so it might be worth retaining a copy of the first edition for the sake of the chapters which had to be excluded from this one. There are, of course an enormous number of other reference books broadly relevant to Newton. We have recommended books like the *Encyclopedia of the Scientific Revolution* (Applebaum, 2001) (RR 2001/032) and *Science and the Enlightenment: An Encyclopedia* (Burns, 2003) (RR 2004/272). There are also plenty of smaller texts, such as the Oxford University Press *Isaac Newton in their Lives and Legacies* series (Christianson, 2005). However, when reviewing the first edition of this *Companion*, our reviewer said that “all-in-all this is probably the most accessible guide to Newton and his writings currently available” (RR 2002/330). I would largely confirm his view, so public libraries may also wish to acquire this volume. Although it discusses Newton’s mathematical ideas, it should not be beyond the grasp of a well-educated general reader.

#### Martin Guha

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## RR 2017/134

### A Dictionary of Computer Science (7th edition)

*Edited by Andrew Butterfield and Gerard Ekembe Ngondi*  
Oxford University Press

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viii + 627 pp.

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**Keywords** Computers, Dictionaries, Computer science

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Part of Oxford University Press’s *Oxford Quick Reference* series, the seventh edition of *A Dictionary of Computer Science* provides easy access to explanations and definitions of common computer science terms and concepts, and contains approximately 150 new terms not in the previous edition (2008). Significantly, this edition brings a title change that is not discussed as part of the preface. In fact, the table of contents in the paperback edition still lists the body as being *A Dictionary of Computing*. Title choice aside, this updated edition brings readers into the era of Android, SaaS (Software as a Service) and social media – elements that were just emerging at the time the previous edition was published.

The dictionary’s brief entries appear in alphabetical order, with clear, bold headings, and definitions also include terms in bold type to indicate major cross-references. Some entries end with additional cross-references (see also), while others offer suggestions for comparison. For example, the entry for Hidden Terminal Problem (p. 252) recommends that the reader also review the entry for Exposed Terminal Problem. This feature is particularly useful for a novice who may not already know of the other related concept or term. Terms generally appearing elsewhere in the *Dictionary* are indicated as such with an asterisk at the beginning; however, this convention is not explained in the Guide to the Dictionary.

Six topics have additional information included in a series of two-page spreads. The first, The Anatomy of an Internet Address,

provides useful insight into the elements of a uniform resource identifier, but may be too basic for most users of this dictionary. Other topics are more sophisticated and beginning researchers will benefit from the deeper coverage: computer graphics, object-oriented programming, quantum computing, SQL and XML.

Some entries indicate that there are additional curated web links on the publisher's website where users can find additional information. Others have small charts, graphs or illustrations that supplement the definitions. Entries span a broad range of topics, ranging from terms related to hardware and equipment to programming and logic concepts. Significant companies and individuals have short entries that include histories and biographies, respectively.

The appendices include several useful ready reference lists, which vary in quality but are still useful. Oddly, the appendix listing Generic Top-Level Domains (TLDs) lists the TLDs introduced in 2001 (ICANN, 2000), but does not include or mention the change in 2014 (Vaughan-Nichols, 2014) that allowed introduction of domains based on company names and other words such as .diamond, .surgery and .read, among numerous others (Internet Assigned Numbers Authority, undated). At the same time, however, lists of Country-Code domains and the File Extensions provide quick access to what are lesser-known but still commonly used abbreviations. A two-page chronology adds a simple summary of computing achievements and breakthroughs since 1821.

Despite some small drawbacks, this volume would be useful for high school and college libraries, and due to its relatively low cost, would be a handy resource for any researcher in the field.

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## References

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### Encyclopedia of Marine Geosciences

*Edited by Jan Harff and others*

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Encyclopedia of Earth Sciences

Also available in print (xxxiii+961pp. ISBN 978 94 007 6237 4 £359.50 \$549) and as a print and electronic bundle (ISBN 978 94 007 6239 8 £431.40 \$689)

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The *Encyclopedia of Marine Geosciences* is a part of the *Encyclopedia of Earth Sciences* series published by Springer Reference. It is a rich resource of material on various topics in the field of geosciences for all levels, but more towards advanced level of research. The *Encyclopedia* is available in print and online and is reviewed here in its latter version. A print and electronic bundle can also be purchased.

Each section of this volume begins with the name and credentials and affiliation of the author followed by synonyms of the subject to aid multilevel term searching. Following this is a definition of the topic that also supplies an explanation of figures and tables that are included in the section. The section continues with detailed information on the subject including tables, charts, maps and photographs, if needed, and ends with a bibliography of resources for users to find more data. Each section contains cross-references that users can search, both in this encyclopedia and other resources, for more information. The subjects included in the encyclopedia cover from one to multiple pages depending upon the topic. Many of the subjects are lengthy and go into explicit detail.

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