In the Bookstores

Statistics: A Very Short Introduction
by David J. Hand;
7.99 GBP. 124 pages.

Epidemiology: A Very Short Introduction
by Rodolfo Saracci;
7.99 GBP. 145 pages.

Very short introductions to very big topics

To satisfy the inquisitive mind, Oxford University Press has since the year 2000 published books offering ‘A Very Short Introduction’ to a whole range of subjects. For example, 2013 saw the publication of introductory guides to, among other topics, happiness, food, fractals, Mao, medical law, the Napoleonic wars, and thought. Books in the series that may be of interest to medical writers include one on statistics and another on epidemiology.

Largely written in a readable, engaging style, Statistics: A Very Short Introduction introduces a subject the author considers to be ‘at the heart of […] most […] aspects of human endeavour’. Rather than information of practical use, the focus is the philosophy of statistics; central tenets, concepts, and theories; and the evolving role of the statistician in what the author describes as ‘a golden age’ of statistics (the computing age). The book also provides a defence of statisticians, rejecting the suggestion that any lack of trust in statistics is their fault.

After an introductory first chapter that describes some of the applications of statistics in everyday life and that neatly illustrates the possible consequences of data collection errors using real examples, author David Hand next defines and explains some key terms (e.g. variable, median, standard deviation, and range). A laboured description of the mean and its calculation seems to assume that the reader lacks even basic knowledge of maths.

Subsequent chapters cover problems with data (incompleteness, errors), and how to minimise and deal with them; and probability, including different forms of probability and probability distributions. Shortcomings include the term ‘probability density’ being used but not defined and a particularly opaque description of the Bernoulli distribution. Any reader who needed ‘mean’ defining for them may well struggle with the probability chapter (as the author himself pretty much acknowledges).

The fifth chapter (‘Estimation and inference’), which covers point estimation, hypothesis testing, and decision theory, is also a bit of a slog. Relief comes in the next chapter in the form of introductions to different types of statistical models and their uses, including a clear explanation of the problem of overfitting.

Next to be introduced are some of the main statistical methods (regression, analysis of variance). Hand bombards his readers with new terms in a quick-fire manner, before rounding things off by briefly describing how computers have revolutionised statistics.

The second book, Epidemiology: A Very Short Introduction, is slightly longer and less well written. It covers all the areas you might expect it to, outlining the history and development of epidemiology before explaining prevalence, risk, incidence, and odds ratios, and describing how to calculate them. Again, the author (Rodolfo Saracci) assumes ignorance on the part of the reader, writing ‘sugar’ and ‘of the lung’ instead of glucose and pulmonary. One wonders how many of his potential readers do not know what glucose is.

As well as introducing core epidemiological study designs (e.g. cohort and case-control studies) and systematic reviews/meta-analysis, Saracci devotes a good few pages to the vexing problem of determining causality. While affording little in the way of detail, he also briefly introduces terms such as ‘logistic regression’ and ‘Cox’s regression’, thereby providing a platform for further reading/research by the reader.

Unfortunately, his book has a number of flaws. Some of the example calculations are less than easy to follow and some figures are downright tricky to interpret. Several statements are tough to decode, and descriptions of polymorphism studies and genetic variation are unconvincing.

And, yet, there is no denying that the book offers some fascinating insights. I was most interested to
learn that monitoring patterns of Google searches for ‘influenza’ can detect outbreaks more quickly than traditional methods. Elsewhere, hot topics such as climate change get a mention, and a set of bullet points gives excellent guidance on when to trust health information on the Internet and in the media. Ethical issues such as data protection and genetic analysis of samples held in biobanks are highlighted. So too is the importance of epidemiology to clinical medicine and public health, and of socioeconomic status to health at the subpopulation level, with the author displaying commendable compassion and concern for disadvantaged populations. A generous ‘Further reading’ section finally directs anyone enthused by all this to textbooks, books of practical exercises, web resources, and intensive courses.

Both of these books seem to be aimed at people with high levels of intelligence or education, but little or no knowledge of the subject of interest (or related subjects). Are they successful? Not entirely. While Epidemiology… arguably provides the more useful introduction, it also has the more obvious weaknesses. One weakness it shares with Statistics… is the lack of a glossary. This is a shame as glossaries can be an invaluable resource for newcomers to a particular subject. Happily, an excellent glossary of statistical terms may be found online.¹

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Reference

Microsoft Word 2010 for Medical and Technical Writers, Second Edition
by Peter G Aitken and Maxine M Okazaki;
44.95 US$. 200 pages.

Once upon a time vendors of computer software were more provident. My first version of Word® for Mac (MS Word 5) came with ample printed documentation, including a multi-page quick start guide and a separate, more detailed and, at that time for me, nearly for-bidding volume of instructions. Although that manual skirted the issue of glitches inherent to the software and, perhaps only unintentionally, also many of its potentially befuddling intricacies and peculiarities, the instructions were adequate for my work. Nowadays, software at best comes on a CD, a tangibility that bolsters the sense of ownership, or it is sold on line for downloading, in either case leaving users little choice. Either one relies on the software’s installed Help feature, which tends to be hard to navigate, feebly self-revealing, and presumptuously incomplete, or one buys a third-party technical manual. Publishers of software have saved themselves the cost of printing and shipping, and they have shifted the responsibility of providing a decent user’s manual to a specialised after-market niche of writers – wherefrom iPad 2 for Dummies, one example of technical titles that populate wide shelves in bookstores.

Like all serious professionals, we expect our tools to be well honed, smooth in operation, and unob-truding. Any tool that keeps reminding its users of its presence as an intermediary is a weak tool. We cannot avoid the learning curves needed for acquiring proficiency with the software we use. Yet, discovering bugs and omissions and inherent disabilities in various successive versions of Microsoft Word, most of us have been frustrated, lost faith, and finally have resigned ourselves to relying on systems that are imperfect or are not intuitively user-friendly. But our medical writing colleagues Peter Aitken and Maxine Okazaki were challenged to find ways to manipulate and outfox or neutralise those inbuilt shortcomings. They have girded themselves and put together and published Microsoft Word 2010 for Medical and Technical Writers (MSW’10MTW). The ‘Second Edition’ in its title refers to the fact that the volume succeeds the authors’ similarly purposed book on MS Word 2003.

The authors provide the best capsule description of the book right on its cover: this is a book of ‘Techniques and best practices for using Microsoft Word to create long, complex documents’. More than a tutorial, ‘It summarizes the authors’ extensive experience [over 50 years combined] with Word, presenting best practices, bug work-arounds, and proven techniques for using the program […]’.

Even when applied to small documents, text-processing software can present writers and editors with challenges. The hurdles are multiplied and can become daunting when the length and complexity of the text to be treated increase (as in regulatory
documents or books), or the same text is processed on different platforms. The primary utility of MSW’10MTW is as a travel guide to navigate the intricacies of a labyrinthine software – saving users of MS Word from time-consuming trial-and-error discoveries or, worse, from remaining oblivious to its labour saving features. Toolbar (‘ribbon’) preferences and options, styles, formatting, pagination, breaks, headers, footers and footnotes, fields, tables of contents, tables, templates, tracking: these are but some of the utilities and tricks of MS Word 2010 that are covered in adequate, albeit variable, depth in the book.

If not its dimensions (21.5 × 28 cm², print version), then its spiral binding and soft cover make it easy to use. The font size and amount of white space generously host the reader and allow concepts to stand out. My own preference would have been for a serif typeface and justification of only the left margin – widely considered features that enhance readability, at least in print. Most ingratiating is the intimate and collegial tone of the authors’ prose. Their advice is not something that is read in the book, but ‘heard’, as if a trusted sage friend or a relative is visiting and orally recounting experiences of one’s life and sharing lessons learned from them. The book thus offers a most satisfying consultancy. What is further admirable, even enviable, is the dedication and stick-to-it-ness of the authors to ferret out and define potential problem areas, devise and test and re-test solutions, and gather all in a highly useful, though admittedly not comprehensive, guidebook. Revelations and advice abound. The more arcane material is presented in ample boxouts between expository and instructional main passages. For example: Eliminating a paragraph mark between two consecutive paragraphs will merge them as to style and format. Option settings are variably ‘sticky’, i.e. they may stamp all documents or just the one being worked on when the option is set. Though they are most useful, ‘When used improperly […] styles can make your life miserable’. To be able to see headers in Page Layout, the ‘Show White Spaces Between Pages’ option must be turned on. The list of insights that elicit an admiration-full ‘Ah-ha’ goes on and on. How to please clients who do not wish to have fields in the documents prepared for them… ‘Keeping Table Rows from Breaking Across Pages’… ‘Tables Within Tables’ (!)… And one cautionary and admirably ingenuous boxout (slightly paraphrased): The authors advise against creating a template from a document created in any earlier version of Word, which seems to increase chances of future document problems, while confessing that they ‘do not know of any way to tell which version of Word was used to create a document’.

I am not a geek, but I depend (perhaps more heavily than desirable) on digital devices and, therefore, the techies who keep them operational. A further limitation of this review requiring disclosure is that I use Macs only, and there are differences between MS Word for PCs (the focus of the book) and MS Word for Mac – though those may be slight. Wherefrom a disclaimer: I have not spent time specifically to check the accuracy of the directions the authors provide. Most of those I used worked for me on my Macs with minimal adjustments, many with none at all. There are differences (beyond the scope of this review to treat in detail) between basic, introductory level instruction manuals and advanced technical ones. MSW’10MTW occasionally seems to straddle the line between the two, but so too do most technical documents intended for ‘advanced’ users. A concept that is elementary to one reader may be considered complex and arcane by another less experienced. There is no question, however, that anyone who uses MS Word for work will have no trouble quickly recouping the purchase price of even the printed version of MSW’10MTW. It is sure to steepen the learning curve of using MS Word. Furthermore, engaging an IT technician for a one-on-one consultation and resolution of a problem no doubt will cost more.

Living in times that complicate our lives and fragment our attentions by imposing on us a myriad of engagements and obligations, we crave instant gratification through instant mastery also of our tools. Yet, even if the ultimate, perfectly user-friendly version of Microsoft Word were possible, it would not be published in the near future. Change energises markets by stimulating consumption. Craftily timed, incremental releases of successive ‘new and improved’ versions of products boost profit margins. We can be certain that no nth version of Microsoft Word is going to be free of bugs or complexity. Harried users are going to continue needing help in the use of those future versions. One hopes that Peter Aitken and Maxine Okazaki will be there again to provide that guidance. They certainly are up to the task.

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You can explore the topic further by reading the article “Taming Microsoft Word” by PG Aitken and MM Okazaki on page 6 of this issue.