

Whereas 20 years ago little attention was paid to developing professional skills for young scientists, it is now widely recognized that professional presentation skills are an indispensable cornerstone of a successful scientific career. Today, most universities offer workshops or courses to help young scientists develop professional skills. *Presentation Skills for Scientists* is the most recent instructional text targeted at improving scientific presentation skills for scientists. The book results from an unusual collaboration between Edward Zanders, a biomedical research scientist who has worked both in academia and industry, and Lindsay MacLeod, a London tourist guide.

Presentation Skills for Scientists reiterates many of the pointers voiced in previous monographs, much of which is common sense – although often ignored – practical advice, such as knowing your audience, planning and rehearsing the presentation, staying within the allotted time, voice projection and eye contact with the audience, and the use of clear visual images that appropriately support the presentation. The book appears targeted to the novice speaker and heavily focused on instilling confidence in and providing encouragement for nervous speakers. In fact, an entire chapter is devoted to ‘controlling nerves’ and the accompanying DVD-ROM contains a substantial segment on breathing and relaxation exercises (some of which might instill panic in the audience with a desire to rush to the aid of the speaker if he or she were observed executing these exercises in a seminar room prior to the presentation). That is not to say that the emphasis on controlling nerves, which permeates most chapters of the book, is not helpful. On the contrary, the ‘we have all been there, just take a deep breath and you’ll be okay’ mantra can be reassuring to those who are facing their first initiation in the academic arena. The emphasis on controlling nerves, voice modulation and audience contact, although important considerations in their own right, distracts from what should after all be the main focus of a scientific presentation, the organization of its content. Although the authors provide general guidelines, including advice on keeping the conclusion brief and to the point, the classic concept of ‘telling what you’re gonna tell ‘em, then tell ‘em, then tell ‘em what you told them’ is never placed at center stage. Although the book contains many amusing anecdotes, its impact would have benefited greatly if more relevant examples were incorporated in the text.

Nevertheless, *Presentation Skills for Scientists* is a useful resource. One of its advantages is its small size and user-friendly format. With only 68 pages (including the Index) in a wide-spaced fairly large font, the book can be read within about an hour, and there is no doubt that the reader will benefit from some of the advice presented. What sets this book, however, apart from other books on scientific

presentation is the sample presentation contained on the accompanying DVD-ROM. This illustrates systematically side-by-side bad and good aspects of an imaginary presentation, a well-conceived and amusing story of the discovery of the fictitious OOPS gene on the Y-chromosome, which encodes the male-specific forgettin protein. This series of short video clips is instructive and provides a vivid demonstration of how to and how not to deliver a scientific presentation. Like its predecessors, *Presentation Skills for Scientists* dispels the myth that being a good or a poor speaker is predetermined by an immutable innate talent. The authors aptly quote Ralph Waldo Emerson, who said ‘All the great speakers were bad speakers first.’

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Elements of Computational Systems Biology. Eds. H. M. Lodhi & S. Muggleton. Wiley-Blackwell. 2010. 412 pages. ISBN 9780470180938. Price \$115 (hardback).

Amazon currently lists well over 100 print-format books with ‘Systems Biology’ in the title, a four-fold increase in four years. Whatever the reasons for this publishing boom, would-be users of such books face a daunting task identifying something appropriate. Even ‘Computational Systems Biology’, the title phrase of Wiley’s latest offering (Lodhi & Muggleton, 2010), is rather uninformative, shared with a score of other books. It is, however, indicative that this collection of 17 contributions (corralled under rather broad section headings: ‘Overview’, ‘Biological Network Modelling’, ‘Biological Network Inference’, ‘Genomics and Computational Systems Biology’ and ‘Software Tools for Systems Biology’) comes from a computer-science rather than biological perspective – the editors are both in Imperial College, London’s, Department of Computing. That is not to say that non-computer-scientists should steer clear – there is an element of the dating agency here – available techniques seeking partners in biological problems. I, for instance, was interested by the chapter on ‘membrane computing’, an area of biologically inspired computing new to me. At the same time, this book is not particularly biologist-friendly. Many of the chapters stand very close to their subjects and sometimes this is enough to turn off the general reader: The sub-section on inductive logic programming (ILP) starts by ‘review[ing] the notion and terminology used in ILP’, something potentially

rather useful but, in practice, the first sentence of that explains one jargon term ('a literal') in terms of another ('an atom') and gets more involved from there. Not starting far enough back is a more surprising issue for the first, 'overview' chapter. While collating useful references, this misses the opportunity to present an overview of any of the various things that (computational) systems biology might mean, or indeed of the rest of the book. This could be an issue when many would-be readers' understanding of computational systems biology derives, directly or indirectly, from Kitano (e.g. Kitano, 2002), with his emphasis on biological simulation. The areas covered in this book are at once broader, for instance encompassing reviews of codon bias and biomedical imaging, and more specific, focused on what is often only the first step of systems biology, network construction.

Amid close-focus chapters, Jeremy Gunawardena's piece on 'Models in Systems Biology' is a welcome broad horizon. Addressing the 'parameter problem and the meanings of robustness' it brings perspective and clarity to a confused area of 'traditional' simulation-based computational systems biology. That there are problems with the multiplication of parameters is ably demonstrated by the following chapter where the 13 pages of main text are followed by 18 pages of appendix, primarily comprising the equations and parameters of the model presented. A machine-readable file in the biomodels database (Li *et al.*, 2010; <http://www.biomodels.net/database/>) would have been a whole lot more useful.

This is a diverse more than a comprehensive book, but its core is the section on 'Biological Network Inference', a theme that spreads out into other sections: Networks inferred via text mining appear in the 'software' section and two of the chapters in the 'genomics' section concern constructing transcriptional networks using genome sequences and expression data. The approaches are varied, even encompassing phylogenetic reconstruction. I'm not convinced that this latter chapter, which clearly presents the niceties of rate variation in biological sequence evolution, is particularly suited to a book on systems biology. However its presence makes the important point that phylogenetic trees are a form of biological network with a substantial history and body of theory, which has largely been ignored by, and ignored, systems biology up to now.

For those whose interest in systems biology doesn't involve constructing networks, perhaps taking them 'off the shelf' at KEGG (Kanehisa *et al.*, 2010), it is likely to be economically more sensible to download a chapter or two than buy this book. But even those uninterested in network construction can't avoid networks' pervasive presence in modern biology. So such a collection of network inference methods presents

a challenge: do the questions asked of the resulting networks and the approaches used on them adequately account for the range of options and uncertainties that surrounds their construction, quite apart from real evolutionary variation in network structure (Knight & Pinney, 2009)? In simulation-based systems biology, uncertainty and change in network structure is rarely considered, the tools are not there to do so. I for one look forward to computational systems biologists providing such tools in the future. But those putting together books on the subject will need to find more informative titles if we're not to give up on sifting through the current morass of works labelled 'systems biology'.

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At the Helm: Leading Your Laboratory, 2nd edition.

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Read This Book BEFORE You Take The Helm

The second edition of the book, *At the Helm: Leading Your Laboratory*, like the first, offers a wealth of excellent advice for people starting a new career running a laboratory as well as useful advice for more established researchers. The book begins with advice on how to get a good start in a new position, beginning with the message that this is most likely to occur if you find an institution that fits your career goals. While this might seem obvious, when the job market is as tight as it is, many may be tempted to jump at the first offer they get, and this book highlights some of the many drawbacks that this might have from a career perspective. The introductory chapter also does a nice job of reviewing what can be expected from industry