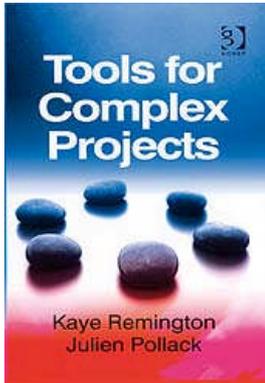# Review of
'Tools for Complex Projects'

Kaye Remington and Julien Pollack

203 pages

Gower Publishing

I have interests in the fields of both complexity science and project management, so was naturally drawn to this title. It also came recommended by people I know and trust who are active in this field of study and practice. 'Complexity thinking' is being applied to many different areas of human endeavour, and there is a clear groundswell of interest at this time in the potential for this way of thinking to support current challenges in the field of project and programme management.

The challenge is stated in the preface to the book as follows:
"We can manage straightforward projects. We can also manage certain types of large complicated projects, such as building large chemical plants. But it has been increasingly clear over recent years that projects are becoming more complex and it is the complex projects that we aren't good at managing – in fact we aren't very good at understanding how they behave at all"

I think the authors have done a good job in both introducing the principles of 'complex adaptive systems' and then going on to answer the 'so what' questions, such as what tools and techniques can be applied to maximize the probability of success.

The theory is kept to a minimum, for which most readers will be thankful, although there is a long reference list at the end of the first chapter for those wishing to know more about complexity science and complexity thinking.

Four types of 'complexity' are described, and it is acknowledged that most projects will have aspects of more than one type:

- **Structural complexity** – most large and all very large projects are likely to fall in this category. Some would argue that this is 'complicated' but not necessarily complex, the differentiating point being that the outcomes can be broken down into smaller pieces that are produced independently and then reassembled to complete the whole, in other words a reductionist approach can be expected to work. Most project managers will be entirely familiar with this aspect of projects, and arguably this is where much formal training is currently focused.
- **Technical complexity** – here the difficulty arises from technical unknowns, perhaps with techniques or products that are being used or created for the first time. There may also be unexpected interdependencies, which are not amenable to the reductionist approach.

- **Temporal complexity** – this can arise from changes in environmental constraints and expectations which take place during the project development – shifting sands. Interestingly the authors point out that this is common in the public sector as a result of changes in government, something a number of UK project managers can possibly relate to at this time.
- **Directional complexity** – this is where it gets really interesting (and where probably everyone can agree that the term complexity is appropriate). Directional complexity is found in projects which are characterized by unshared goals, unclear meanings and hidden agendas, with multiple potential interpretations of goals and objectives. Managing relationships and organizational politics then become key to success.

I think it would have helped to make a clearer distinction right from the start between 'complicated' and 'complex' – one is not just more of the other, they are to my mind quite distinct or even orthogonal qualities. I don't think this is a trivial point, as I think an argument can be made that the bulk of our formal learning in the project management field is in dealing with 'complicated'. If 'complex' is just seen as an extension of 'complicated' it may logically follow that all we need in complex projects is more of the techniques that worked so well before. And that is evidently not the case.

A substantial part of the book is devoted to tools and techniques, with clear signposting on what might work in a given situation. Some of the tools may be familiar to some readers, but I for one was surprised at the inclusion of Stanislavski's Method (as generally applied in the acting domain, notably by Michael Caine – yes, that Michael Caine, the one who does not generally feature in reviews of Project Management books). I was left wondering what my clients would say if introduced that methodology, I suspect they would run for cover. This may represent cowardice on my part, but I think there is a real issue of what is acceptable in the 'hard' world of project management. Of course, we all know that the hard stuff is easy, it's the soft stuff that's difficult, but knowing and accepting is a different thing.

On a more positive note, I found the chapters on 'Multimethodology' (embracing Soft Systems Methodology for example) enlightening and helpful. In a way the challenge I describe above is taken head-on here. The authors make a clear distinction between 'Problem Structuring' and 'Problem Solving', pointing out that these two separate phases require different skill-sets and ways of thinking. A possible interpretation is that the project management world is now highly competent at the latter, but not the former, and the barriers to understanding between the two are high. The solutions recommended by the authors are to be sure what phase you are in at any point, to bring in external help in the Problem Structuring phase, and to resist the inevitable pressures to 'get on with delivery'. Easier said than done, I know.

Other authors have written notable papers on complexity in project management, for example Terry Cooke-Davies with "We're not in Kansas anymore Toto" in the June 2007 PMJ (with other authors), and "De-Engineering Project Management", 2004, in which he explores Ralph Stacey's concept of Complex Responsive Processes of Relating. Remington and Pollack cover less theoretical ground, but compensate with an array of practical tools along with guidance on what might work where.

All in all I recommend the book for anyone who is (or thinks they might be) managing a complex project.

Peter Miles:

Peter trained initially as an electronics engineer, and has worked in a variety of roles including that of project manager in the automotive supply sector. He now manages Complexity Solutions and in that role helps organisations to tackle extremely complex, high value issues, often during the start-up phase of a major transformation project.

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