
Reviews

edited by Philip Barker

Managing Change in Higher Education: A Learning Environment Architecture by Peter Ford and eight other authors, Buckingham: Society for Research into Higher Education and the Open University Press, 1996. ISBN 0-335-19791-4. 161 pages, paperback. No price indicated.

Contributions to this review are by Ray McAleese, Betty Collis, Gabriel Jacobs, Bridget Somekh and Tom King.

This composite review is intended to give readers a number of different perspectives on an important book. The technique, which was used in an earlier *ALT-J* review (in Volume 4 Number 2, 1996, pages 61-72), is a development of what Spiro *et al* (1988) call 'traversing the terrain'. Each reader will bring to a book his or her own perspective, each of which may be a legitimate way of making sense of the ideas and arguments it contains. In order to give *ALT-J* readers a sense of others' views, we asked three different reviewers to consider the book, each from a different standpoint. Betty Collis, who has written extensively on educational innovation and new media has taken a pedagogical point of view. Gabriel Jacobs, Editor of *ALT-J* and a prolific writer on educational media, has taken a technical view. Bridget Somekh, recently appointed as Dean of Education at Huddersfield University and an internationally known educational researcher and writer on evaluation methodology, has taken a general philosophical view. Each of these views - pedagogical, technical and philosophical - represents one way of reading *Managing Change in Higher Education*: there are of course other ways, and readers will have their own points of view. To complete the multiple perspective, the Editor of the book, Tom King from the Interactive Learning group at ICL, was asked to respond to the reviewers' comments. His role was not to be so much to

rebut others' remarks but to give a fresh impetus to the initial arguments in the book.

This leaves my role. I am a teacher and researcher in Higher Education with an interest in thinking, educational innovation and learning technology. In order to encourage a critical approach to the book, to the reviews and to Tom King's response, I have annotated the multiple review. Using a Socratic irony technique indicated by the questions and answers, my aim has been to suggest to the reader other lines of enquiry and ideas not raised by the invited reviewers. My intention has not been to leave readers with no thoughts of their own, but rather to facilitate a mental 'polylogue' of ideas, claims, criticisms and evidence. To promote this approach, ALT will publish any reader's comments, questions, extended criticisms or 'reviews' concerning this book and the reviews and comments below, on the ALT-Electronica Web page. (<http://www.warwick.ac.uk/alt-E>) Readers should email comments, etc. to me (r.mcaleese@hw.ac.uk) or to Jay Dempster, Manager of *ALT-E* (j.dempster@warwick.ac.uk), indicating in the header that the message is a comment on *Managing Change in Higher Education*. Details of this open review process will be found on the *ALT-E* pages.

Ray McAleese, Centre for Combined Studies, Heriot-Watt University

Pedagogical perspective

Q: How can an academic be responsible for the pedagogy and its epistemology and systematic management? A: I doubt if any of us explicitly accept this responsibility.

Q: Is this not a common reaction to new ideas?

Q: Why should this matter? Surely we all value different perspectives? Do we really expect a single magic bullet, a unifying story that is unambiguously clear to the reader from the beginning?

Q: Is it the two-dimensional nature of the model that is a problem here? A: I am thinking of fractals, recursive events that in a systems model will sometimes be process, sometimes product.

I was asked to review this book from a pedagogical perspective. I interpret this as from the perspective of a Faculty member not only responsible for my own teaching and its pedagogy, but also involved professionally and as a researcher in the broader issues involved with improving the quality of the learning experience in Higher Education. From all of these perspectives, I was pleased to be asked to review this book, with such a promising title and pedigree. Yet when I read it, I was surprised to feel a negative impression growing upon me as I found myself going through a transition from reading with optimism to ploughing through with frustration. Why this response (which remained after a second reading)? First a few general comments.

I appreciate very much the effort of the team, and the careful attempts that were made to decompose and analyse. But once this task was taken on, the obligation of the Editor of the book (whose name is not indicated) better to harmonize the different chapters becomes stronger. Although the general Figure 1.1 is used throughout as an organizer, the figure itself is unpacked differently in the different chapters, with different diagrams, sometimes different use of terms, and sometimes an overlap between concepts without a successful attempt to reconcile the overlap. As just a few examples, the terms *method* and *architecture* themselves reappear in a recursive manner not only to describe the entire system but also components within it. Figure 1.1, as the key explanatory diagram for the book, is labelled as describing 'the method' but shows 'the method' as an input into itself. Similarly, the key terms *architecture* and *infrastructure* are used in different ways in different chapters (compare 'the architecture' supposedly shown in Figure 1.1 with 'the architecture' which is described in Chapter 9, and with 'architecture' which appears to be used as a process-verb in Chapter 6 (see Figures 6.1 and 6.2)). This frustration was particularly felt when trying to understand the discrete boxes in Figure 1.1 that are labelled 'business object' and 'workplace'. My suggestion would have been that (portions of) Chapters 5, 6 and 8 should be reworked in one consistent discussion, (portions of) Chapters 6 and 9 into another, and that terms in Chapters 1 and 6 should be harmonized, as well as in Chapters 2 and 4. Also, descriptions of processes should be harmonized, such as those

for learning-materials development (compare Chapters 5, 6, and 9, with their sometimes different and sometimes similar diagrams, such as those for what is called 'chunk development' on pages 78–82 and 'application development' on pages 122–126).

The multitudinous diagrams also lose their support value very quickly, especially when they deal with overlapping topics in different ways, and when their graphic elements are not always consistent with the surrounding text. Chapter 9 was particularly frustrating in this regard, as for example the fact that at one point in the chapter, 'interpersonal communication tools', 'resource discovery and access tools' and 'learning chunk evaluation tools' are illustrated as discrete from each other and from the category 'learning tools', but a few pages later in the chapter under the subhead Learning Tools appears Table 9.1 labelled 'Learning Tools' but which contains within it many examples of 'interpersonal communication tools' and 'resource discovery and access tools'. What the obscure 'learning chunk evaluation tools' are, I still do not know. This is only one example out of many that I noted. When a book sets itself the task of careful decomposition, editing is needed to maintain the expectations of the reader.

Adding to the confusion for the external reader is the rather mysterious OPENframework to which regular reference is made, but no clear explanation given. The buzz-word feel that one gets about the framework is not helped by the fact that it (whatever it is) is the copyright of ICL (who also happen to hold the copyright to this book), and that the references given to the framework for the reader to fall back on seem to be available only on a CD-ROM published by the same company and, for the reviewer, not likely to be conveniently accessible. For a scholarly book aimed at scholarly readers, this is rather weak conceptual backing.

The use of occasionally strange and quite awkward terminology such as *qualities* instead of *criteria*, *business objects* instead of *learning materials*, and *trading partners* to describe what seems to include groups as disparate as research councils and the Government (the labels used in Chapter 7 of 'influencers' and 'related agencies' are more descriptive), appears to have its roots in the mysterious OPENframework vocabulary. There is no evidence given to the reader to indicate why this OPENframework should be

I am beginning to think that this reviewer would not be happy with the book even it were to be re-written. Q: Can one get into a frame of mind where the language and conceptual framework offered is so challenging that one is unable to see what is signified from the signs? Can the signs be so dominant in a framework as to eliminate what is being signified?

Q: How can the writer share with the reader private or tacit assumptions? A: In this case, the reader is asked to 'buy into' the status and rigour of ICL's OPENframework. I must say I had the same reaction, but I feel that the vocabulary and systems model offered is worth more thought.

accepted as the basis for any further analysis. The list of benefits claimed for the use of the model (page 3) also smacks of something more like a commercial than a scientific document. The superficial Steps 1-4 in the final chapter ([. . .] appoint a senior manager as "owner" of the architecture', page 135) do not help dispel this feeling.

However, my task is the pedagogical perspective. What did I find of particular interest as a long-time instructor in Higher Education and as a researcher in the application of technologies in such instruction? I cannot say I feel particularly helped. Why?

First, the Open University influence on the thinking about pedagogy is strong. The lengthy and formalized processes for 'learning chunk development' described in Chapter 5 (with its 'gooseberry model', a particularly alienating decision for terminology) on pages 70-88 in Chapter 6, and 122-128 in Chapter 9, all reflect the team-approach to learning-materials development often described by the Open University and other distance-education institutions, based on a learning-materials approach to course design. But as the author of Chapter 7 points out, quite accurately from the perspective of course-material development at most universities of the non- distance type, 'traditionally the creation of learning material [. . .] is an individual endeavour. A [. . .] team approach to the task is rare' (p. 98). The underlying assumption, that good teaching means making the teacher as unnecessary as possible through replacing her with waves of others, with teams of course developers ('learning chunk developers'), supported by tutors and other support persons, all revolving around self-contained and detailed study materials (gooseberry fillings, perhaps?), is the assumption of only some distance-teaching institutions and some instructional designers. The many distance-teaching institutions which emphasize the centrality of a good instructor and good real-time interaction between the instructor and students start with a different assumption. As an instructor, as well as a researcher of pedagogy in Higher Education, I do not believe that the changes pushing Higher Education as outlined in Chapter 2 mean necessarily that the instructor should disappear into an anonymous position as only a member of an equally anonymous team (or is it 'work group'?). I agree that the aspects of pedagogy described as learning processes in Appendix C

Q: What would I do in this situation? A: I do not find it easy to collaborate with others as I often

will be augmented in an increasingly diverse variety of ways in the future, but not necessarily that the instructor will cease to be important in many of these ways. Along with modules and teacher-free learning experiences, Faculty members will still be instructors leading courses and class sessions, and responsible for stimulating, moderating and evaluating their students' work. This book does not seem really to acknowledge this; and when it does, it is in a negative sense, implying that such antiquated and inadequate things as lectures really must disappear (see page 73). Not only is the course-development team approach not viable for the traditional university on cultural and organizational grounds, but also it should be seen as a complementary, not an evolutionarily superior, form of course development compared to that of the Faculty member as content expert, course developer, and teacher combined.

A second main impression from the pedagogy perspective relates to a similar underlying assumption which also is never clearly acknowledged as such. As I read the detailed procedures for learning-material design and development (no, I will never call them 'learning chunks', thank you), I see classic instructional-systems design assumptions: that good learning materials have clear objectives specified in detailed terms ahead of time for the student and that can be assessed for mastery at completion. Such a view of learning is not compatible with the goals for higher-level critical and creative thinking and for maturation into a scientific community that many of us have for our students. Such aims are not 'met' by working through a module, cannot be concretized into measurable steps, and often are not 'met' at all, but only gradually developed. The initiation of the student into the professional and scientific community is a long process with many sub-aspects in which scaffolding and mentoring by the interested Faculty member can and should be an important component. Gaining insight and wisdom as well as depth, growing from a student asking 'What precisely to I have to know for the test?' to a young professional who can solve problems in ways not anticipated by the instructor: this, to me, is the overriding goal that I have for my students. It is also the core problem of modules and credit transfers, and even courses, in Higher Education. Reconciling a Fordist (Henry Ford) assembly-line approach,

do not really know what I want to achieve until I try something out. I feel a constraint implicit in the book that this reviewer has put her finger on.

Q: Why do I like lectures (giving, not attending)? A: Perhaps it is the performance factor; perhaps that one cannot really understand something until one has to make it public or explicit; perhaps that I do not readily share others' assumptions and like to do my own thing; perhaps that it is the very social and human aspect of lecturing, where there are listeners in my presence, that allows me to think more effectively.

with its 'quality control standards' and the decomposition of learning into discrete objectives that can be mastered and demonstrated on a test, with the nurturing of a learning experience in which the student gains maturity and insight and self-sufficiency, is our continued problem in Higher Education. I sense little feeling for the human dynamics of education in this book.

Perhaps this is my main point from the pedagogical perspective: I miss the sense of human interaction that can be so important to our core 'business process'. In fact, I miss pedagogy. I am glad to read, on page 65, that 'student learning is the core business process' for Higher Education, because this does not come out very clearly in many of the chapters and charts and diagrams and lines and arrows and boxes and gooseberries, otherwise in the book. However, even my relief at reading that sentence about student learning was tempered quickly when I looked to the glossary to see just how 'business process' was defined (important to make sense out of Chapter 6). What I read in that definition ('Business process: A defined set of tasks and responsibilities, carried out by people or systems, that can be used repeatedly, and can be directly related to the objectives of the business') washes me into the company of those who want to model business objects, interact with trading partners, and be managers of enterprises advised by OPENframework gurus. It washes me away from the students with whom I work and occasionally struggle with, and with whom I occasionally come to have wonderful moments of intellectual interaction. It washes me away from pedagogy. A world of gooseberries and 'learn places' and 'learning chunks' and trading partners and business processes is not what I will see today as I go to teach and interact with my students, even as I use learning materials to support and extend this interaction.

Betty Collis, Faculty of Educational Science and Technology, University of Twente, The Netherlands

Technical perspective

When I was a student in the 1960s, a book like this would have been all but inconceivable. It calls higher-education institutions 'enterprises'. They have 'business performance goals', external forces are 'business pressures', funding councils are 'trading partners'. Yes, times have changed,

Q: Am I reconciled with 'market forces'? A: I feel I can benefit my institution by accepting the nature of the market, but I do not like to be competitive and to win contracts. However, who pays the piper perhaps calls the tune.

and I suppose that this book offers a practical response to the new market forces. One might question some of the assumptions the authors make, such as that in traditional learning-models students have always been viewed as passive receptacles of knowledge. [10] A glance at the long history of educational models shows this not to be so (Socrates, St. Augustine, Vives, Locke, Barclay, Comenius, Rousseau, Pestalozzi, Spencer, Dewey, Montessori, Anatole France, Whitehead, Vygotsky, Papert, Bruner). And it is all very well for the authors of the book to talk of encouraging deep rather than surface processing of information, but that does not necessarily square up with what industry may require, whatever some of its captains say - an honest 19th-century American industrialist once stated that successful industry depended on uneducated, unthinking men who would work for a dollar a day and never complain. No comment . . . except to say that the issue is not straightforward, and not treated in this book. Nevertheless, the book does address - often quite shrewdly and through the presentation of its proposed OPENframework architecture for learning - many important institutional questions, and does suggest answers, even if they are not all necessarily the ones I might have given.

At the technical level, those answers (provided mostly in Chapter 9 entitled 'Technical system') are convincing, but it is difficult to decide at whom the chapter is really aimed. The first stated target readership of the book is senior higher-education managers, many of whom are not technically knowledgeable; so one would expect the chapter to deal with the issues at the level of the lay person. This turns out to be only partly the case. A comprehensive eight-part layered IT system is described (user-interface, application architectures, distributed services, information management, application development, systems management, networking and platforms). However, some of the detail will be beyond the average Vice-Chancellor (but too elementary for the computer specialist, who is also a stated target reader), and the language used is sometimes thoughtless. Let me take two examples among many. We are told that FTP 'facilitates structured data files across a network'. Facilitates? And what, to a lay person, is a 'structured' data file? Or again, does the fact an FDDI network consists of two counter-rotating fibre-optic rings carry much weight with an institutional decision-maker? On

I am glad this reviewer makes this point. I cannot help but feel the authors of the book have stopped their thinking in the agricultural model of learning (tending and harvesting ideas on ground of different qualities), and that they will soon accept a more twentieth-century model: the architectural model (the teacher designs the framework, the learning engineer - courseware designer - implements the plan, and the structure is what is specified by the customer (the employer). Umm...

Q: Why can our senior managers not learn to speak like me? A: As a learning technologist, I can easily express my intentions and design conceptions, my enabling strategies and share my epistemic models with anyone who cares to listen. Well...

the other hand, the chapter has extremely useful sections on tools for learning and for accessing information, and on designing, implementing and assessing the right IT set-up for a given institution. In short, the good parts of the chapter, which are very good, are contained in advice specific to educational establishments.

I shall recommend this book to my library despite my criticisms, and I shall send my review copy to the VC of my institution. This is because the authors rightly present a powerful case for deciding immediately to meet the challenges of the new education market, and offer detailed advice on how to go about the business of meeting them. I choose those management terms, central to my own discipline, with sadly resigned acceptance.

*Gabriel Jacobs, European Business School,
University of Wales Swansea*

Philosophical perspective

This book is the result of an innovative partnership between academia and the world of business. Its authors have worked together over a considerable period of time to produce a practical handbook for organizational change. The structures of UK higher-education institutions are described and analysed within a framework of key ideas and theories for effective business management. First and foremost, this is a modernist book which presents a grand narrative of salvation: it recommends that Higher Education should be viewed as a service industry and run as a commercial enterprise. The book's strategy is to present a generic framework for action capable of being customized to produce a detailed action plan for managing change in any particular higher-education organization.

The tone of the book is didactic because essentially it sets out to provide answers to questions. It is presented in a structured format based on a diagrammatic representation of the 'learning environment architecture'. This is presented in full in the introduction, and each subsequent chapter highlights some of the 20 or so key concepts which make it up (for example, 'business process', 'workplace', 'product'), and discusses how they should be approached and managed. Most chapters end with a summary of key ideas within a section entitled 'What next?'

The great strength of the book is its usability.

Q: Will this reviewer also send copies of this review to the VC? Or would the explicit criticism of the book's language and managerial model be too much? Do we always tell others what we really think, or just allow them to form their own opinions based on what we hope they see?

Q: Does that mean it is useful? A: No, I suppose that a practical book might give me the tools I need to accomplish a job or analyse a problem. I suspect that I must accept the appropriateness of the analysis and the tools to make them useful.

I did like the 'What next' sections and the summaries. I was even tempted to skip the

In the tradition of grand narratives, it is also admirably comprehensive. Organizational change is nearly always essential but difficult, and this book provides managers in Higher Education with a checklist of things which ought to be considered. At first sight, nothing is left out. But the weakness of the book lies, also, in its certainties. The ideology of the marketplace may not always be appropriate to higher-education organizations. The jargon of 'learning chunks' is perhaps unnecessarily, almost aggressively, inelegant; and what is to be gained by the marketease of calling a higher-education workplace a 'learn place'? The brief bibliography which replaces what would be the references in an academic text confirms that the work of some important change theorists, such as Fullan (1991, 1993) Argyris (1992) and Morgan (1986), has been ignored. There is no micro-political analysis, no awareness of the multiple realities of phenomenology or the subtleties of interpretativism, and no hint of the disorder of a post-modern world. This is a book written for the managers of organizations that seem to lack the tensions and power struggles of human group-interaction as we experience them day-to-day.

The environmental architecture, is best seen as a model rather than a fully rounded hypothetical case. Like all good models, the overall structure and shape have been sharpened up to enable clarification of concepts. The book should be used with this in mind, without any false assumption that the framework will match any one real case.

I recommend this book for its practical utility. I suspect that, by contrast, it may also serve to make many readers more aware of the strengths of those books which explore complex ideas in detail, in the best academic tradition of critical scholarship.

*Bridget Somekh, Faculty of Education,
University of Huddersfield*

Book editor's view

Recently I joined the newly formed Lifelong Learning Unit in ICL, which had recognized many of the overwhelming forces for change operating across all sectors of education. I was invited to evaluate whether the principles of OPENframework, ICL's developed methodology for managing organizational change, could be appropriately applied to UK higher-education institutions. I set out to do this by

content and just go for the summaries. Q: What would I miss if I were simply to read the conclusion in research papers? A: A lot of tedious detail, and I suppose the explanation of why things are as they are described.

Q: What is the difference between a model and a framework? A: The certainty with which the proponent anticipates counter frameworks. I think this is a model. There seems little uncertainty about the correctness of the analysis.

writing a 'specialization' of OPENframework, based on UK Higher Education, as we had successfully done previously for other 'business' sectors like retail and local government.

Q: What was I thinking about frameworks? A: Perhaps the OPENframework is more prescriptive than I thought.

To achieve a new framework, it was essential to base it on an understanding of the issues being faced by UK higher-education institutions. I was delighted to be able to bring together a team of authors which included a number of practising academics with a range of different backgrounds and perspectives. I had the role of facilitator and, by default, that of Editor. ICL's motivations have always been transparent, as evidenced by our sending at least three complementary copies to every higher-education institution in the UK. We also sent copies to all Vice-Chancellors, Principals and Librarians, and those in charge of IT services.

With regard to the language used in this framework commented on by the reviewers, after great initial concern I was very pleased to find that the academics on the team had no difficulty with it and, later, it did not seem to be a problem to those who responded to an invitation to evaluate our final draft before publication. The academics in the team were focused on addressing the issues from a higher-education perspective, and had no axe to grind about OPENframework in particular or ICL in general. As far as they are concerned, the book is offered as an aid to thinking about the issues, not as a commercial blueprint to be religiously implemented by institutions. In response to the comments made by the reviewers, I would like to put forward the claims below as strong ideas which the book encourages people to consider.

The opportunities for change and development are limited by organizational structures. Some, if not most, of our higher-education institutions are likely to have to make quite major changes to the way they are organized – their business processes – if they are to survive and flourish in the future. There are limits to the changes that can be achieved in an evolutionary manner. New business processes will have to be established.

The loose coupling that exists in most institutions between educational resources, for example libraries, computing services and educational provision such as courses and modules, only works well in a stable, unchanging environment. Since external factors (funding, demographic change, increasing enrolments) have undermined stability, there is a strong need to find a way to relate resources

to provision much more directly so as to ensure optimum use of resources.

All higher-education institutions have ambitions to reach new markets in this direction. Whether their academic staff recognize it or not, educational provision needs to be made more flexible. Modularization is a step in this direction, but the key to exploiting new markets will be putting the right educational offerings. Re-use has to become the norm, and re-use becomes easier where small, clearly defined building blocks, 'learning chunks', have been assembled.

The application of IT and other technologies to support learning will make a positive difference if they are designed to take account of the needs of the learning environment (objectives, processes and people) and offer scope for future change.

Tom King, ICL Interactive Learning

Q: What makes the writer use IT as a term describing the artefacts rather than the systems approach that models teaching, learning and the flow of information? Has he ever 'unpacked' IT, or does it carry with it a communications-technology framework?

I wonder if any of the authors or reviewers have read Stafford Beer or Gordon Pask on cybernetics. I suppose Jay Forrester has a lot to say about the interactions between entities in such a complex framework. Q: How can I use the new perspective Ford and his colleagues have provided without accepting the validity of their arguments and vocabulary? A: I would have a look at Bernard Scott (1974), 'The cybernetics of Gordon Pask. Parts 1 and 2', International Cybernetics Newsletter, 327-491, if I could get hold of it, or look for some of Jay Forrester's more accessible writings. I shall leave Pask's own writings until I get used to using 'learn place'!

Editorial note

I cannot resist this: Yes, I have read Stafford Beer, perhaps because his office is next door but one to mine. Gabriel Jacobs.

References

- Arguers, C. (1992), *On Organisational Learning* (reprinted), Cambridge, MA: Blackwell Business.
- Fullan, M., 1993, *Change Forces*, London and Philadelphia: Falmer Press.
- Fullan, M. and Stiegelbauer, S. (1991), *The New Meaning of Educational Change*, London: Cassell.
- Morgan, G. (1986), *Images of Organisation*, Beverly Hills and London: Sage.
- Spiro, R.J., Coulson, R.L., Feltovich, P.J. and Anderson, D.K. (1988), 'Cognitive flexibility theory: advanced knowledge acquisition in ill-structured domains', *Technical Report 441*, University of Illinois at Urbana-Champaign, Reading Research and Education Centre.[18]
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