

## The Seven Limits of Project Management <sup>1</sup>

By David Shannon MA, MICE, FAPM

### What is project management?

Defining the scope of project management has been a continual concern for the profession. In 1987 this was largely answered by the PMI's first Guide to the Project Management Body of Knowledge. Since 1991 the scope of the profession has been expanded, amongst others, by APM's various editions of its Body of Knowledge. Both publications, in different ways, treat the organisational context of project management as a defining boundary and an important subject for professionals to appreciate. This brief paper suggests a structured model for understanding the limits of project management. My contention, based on wide experience, is that on a lot of projects, time spent by project managers can be better allocated. Greater clarity of limits will make for better use of effort, thus raising the productivity and respect of project management.

There are at least seven boundaries at which the limits of project management can be questioned. I briefly describe each before touching on the implications for project management professionals.

The discipline can be represented as a six-sided box. The sides of the box represent the external limits of project management. The arrows represent two-way interactions across the boundaries.

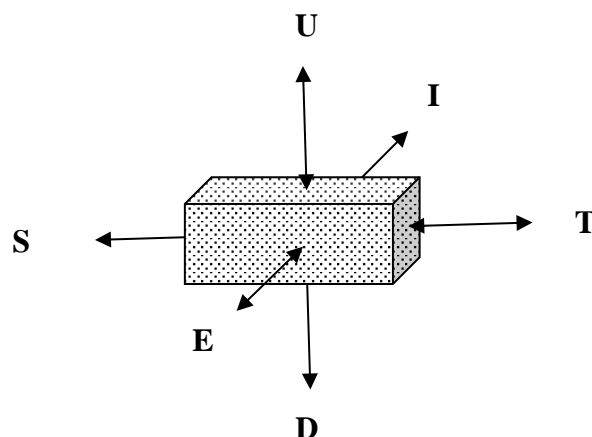


Diagram 1 – The limits of project management  
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Key:	Dimensions	Arrows
	Hierarchy	Up ← → Down
	Expertise	External ← → Internal
	Focus	Socioeconomic ← → Tasks

Taking each of these dimensions in turn.

### **Hierarchy**

Along this axis project management sits between directing at the upper end and administration.

#### **Limit 1 Up, or directing**

However far project management projects itself up the hierarchy of projects, programmes and portfolio management it will eventually hit a ceiling. This is where management gives way to direction. The concerns at this higher level are about strategy, policy, accountability, organisational risks and opportunities, the provision of resources and balancing change with stability. Project management does of course feed into direction and takes its lead from directors. Provision must be made for communicating across this boundary where the role of Sponsor and effective disclosure and reporting are vital. Nevertheless ours is by definition a management discipline focused on planning, monitoring and controlling resources to achieve objectives.

Directors should ensure that their project management resources are capable and well used, hence the APM's flagship publication *Directing Change*. In that guide, most of the recommendations are made to Directors and their advisers, not to managers. Conversely project managers should be adept at managing upwards, ensuring that they receive the direction and sponsorship their project requires.

Occasionally, such as in Special Purpose Vehicles, project managers may find themselves directing all or part of an organisation. In such circumstances they should recognise that they are not then project managing. Work directing projects should not appear in a work breakdown structure (WBS) as project management.

#### **Limit 2 Down, or administration**

All levels of management, whether strategic, middle or supervisory involve administrative tasks. This is particularly true of project management. Examples are document filing and retrieval, data processing and event administration. The efficiency of project management can be greatly enhanced by special administrative support. This administration must necessarily be planned,

monitored and controlled. This support is often provided by a designated Project Support Office (PSO).

In Indonesia and again in Kazakhstan I have witnessed highly paid Project Managers being embarrassed when their new Government Minister, or new Director, accused them of being mere administrators. Where were the forecasts they were asked that did more than summarise more junior reports but that included their own judgement. What instances could they give of showing initiative in changing project outcomes? In both cases project managers had rapidly to up their game from administration to management.

### **Expertise**

Project management is supported on the one side along this scale by external specialists. On the other side, expert support may be available internally. Both these boundaries are porous allowing the project management effort to be determined differently by organisation, programme and project. Optimising this issue goes a long way to determining the scope of any established Project Management Office (PMO).

### **Limit 3 External, or adjacent disciplines**

At the 1969 conception of the UK project management fraternity, the common interest was the branch of operational research called network analysis. Since then their knowledge base has grown as shown in Table 1 below. The growing discipline has borrowed from many other realms, including accountancy, behavioural science, information systems, law and management consulting. In none of these does a project manager need to be a fully competent professional. Thus when a part of the management of a project requires specialist expertise, this work should be recognised as a task to be managed, not executed, by the project manager.

<b>Edition</b>	<b>Date</b>	<b>Number of topics</b>	<b>New topics</b>
<b>First</b>	1992	40	10*
<b>Second</b>	1994	40	0
<b>Third</b>	1996	40	0
<b>Fourth</b>	2000	43	14
<b>Fifth</b>	2006	52	10
<b>Sixth</b>	2012	53	19

\* Compared with PMBOK Exposure Draft August 1994

Table 1 – Topics in APM Bodies of Knowledge

Competent project managers may be compared to general surgeons, able to diagnose complex cases but delegating to specialists for specific interventions. Key requirements are to know the limits of one's own competence, to respect the greater skills of those adjacent professionals and a willingness to call on specialists as required.

#### **Limit 4 Internal**

Most organisations have departments such as Production, Accounting, Marketing and Human Resources as well as functions covering Law, Public Relations, Organisational control, Company Secretariat and Auditing. The boundaries between these units and project management have been debated since before the term Matrix Management was first applied. It is a mistake for project management to gather to itself too much of the duties of such departments and functions. Rather the boundaries of expertise and responsibility should be recognised. These boundaries need careful delineation, in the best interests of the whole organisation, not just for the convenience of project management.

Rather than subsume many such skills and activities, for example into a Project Management Office (PMO) it can often be more effective to hold these specialist departments accountable for the application of their responsibility across the whole enterprise, including projects.

#### **Focus**

The project manager has to pay attention to what happens outside the project as well as, in the other direction, what requires planning and control within the project.

#### **Limit 5 Socioeconomic**

This boundary is with all those external STEEPLE<sup>2</sup> factors over which the project manager has no authority. Changes in the project context are often driven by developments in these factors, so project management attention has to be focused across this boundary. The recent example of the UK's changing relationship with continental Europe is an extreme case in point.

#### **Limit 6 Tasks**

The purpose of management is to get work done by others, effectively. It is often presented as comprising three levels: Senior, Middle and Supervisory. This is true whether on recurring activities or on once-off projects. All three levels are included in project management but, most importantly, not doing the managed work.

Here we come to the boundary across which the project manager has to pay the most attention. Beyond this boundary lie all the work required to deliver the project outcomes and to assure realisation of its benefits. The widely acknowledged authority Professor Rodney Turner says that

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<sup>2</sup> Sociological, Technical, Economic, Ecological, Political, Legal, Ethical

two personalities are required for project management, one to manage outwards and the other to manage the project tasks. The latter is typically the most time consuming. Across this boundary, between managing and doing, are all the project tasks within the WBS but outside the project management section. None of these tasks are performed by the project manager in the project management role.

Great care is required to make sure that no extraneous tasks intrude into the project management section, particularly when task managers try to delegate upwards. Should a project management resource nevertheless become involved in a project task outside of project management that task must not appear in the project management section of the WBS.

In technically based projects this boundary can be particularly tempting to ignore. For example, project managers who are also senior engineers often spend time on purely engineering analysis and decision making. Such time is not spent project managing, however the engineer be titled.

Questioning of project plans on the basis of these boundaries will focus the minds of many a planner and possibly reverse the tendency of project management to be seen as an endlessly growing overhead.

This concludes the description of the six boundaries illustrated in the earlier diagram. What I hear you ask about the supposed seventh limit? Here it is.

### **Limit 7 Quantum Project Management**

This limiting concept lies not on the edges of project management but centrally at its core, the point that has no dimension. The development of Bodies of Knowledge and of the project management profession has largely taken place using systems theory. This supposes that with defined categories and processes similar conditions and practice will achieve similar results, in short that with sufficient modelling the project management world is predictable.

Now, as in the natural world, we know that all is not as it seems. There are major fields of uncertainty that call into question the systems model of the physical universe. Just so, there are equivalent challenges to the systems approach to management.

It is worth reflecting on this useful quotation from Gillian Tett's *The Silo Effect*.

"We classify in order to function, but our organisation causes us to have tunnel vision and blindness. Have disruptors inside companies, able to jump across boundaries."

In a 2016 APM workshop the author presented five quantum concepts that upset traditional ways of understanding project management. These were

Quantum concept	Disruptive issue for project management
<b>Wave-particle duality</b>	When is a resource working, how and on what?
<b>Quantum tunnelling</b>	Power of weak links
<b>Superposition</b>	Unreliability of resource loading
<b>Schrodinger's uncertainty principle</b>	Problem with distortions due to targets and measurement
<b>Quantum entanglement</b>	Influence when absent

Table 2 - Relevance of Quantum concepts

The above concepts, illustrated with examples, led to lively discussion and recognition of the reality of quantum project management. Clearly there is much still to research at this frontier.

So for this the least understood of the limits how do we represent its effects in our planning and control of project management? Some relevant lessons from a quantum approach are:

- Don't remove options until you have to – the skill is in knowing when to remove them.
- Our brains are very good at mapping the world; they don't always need our conscious involvement. Rely more on your instinct to question judgement and results: if it doesn't feel right, it probably isn't right, so go check!
- Expect the unexpected. Nothing should be a surprise. Probability is more mysterious and more endemic in the universe than we've been led to believe.
- An open attitude to solutions and random opportunities will almost always yield better outcomes than a rigid command and control approach. Celebrate serendipity.

Flexibility, in plans, in methods and in outcomes seems to be the main lesson.

## Conclusion

Recognition of the limits of project management is necessary to individual project managers, to project management offices, to professional body of knowledge editors, to trainers and examiners as well as to those responsible for the governance of project management. Those in

such roles have long wrestled with clarifying these boundaries, generally successfully. This article provides a framework for further consideration.

Such a perspective is strongly positive for the profession. Like a well pruned tree it will redirect energy from peripheral growths into the most fruitful branches. Applied to projects it will impose tighter discipline on Work Breakdown Structures, so that less project management time is wasted. This should result in improved project management productivity.

Project Management Offices could use these limits as a means of raising effectiveness. Focused on the PMO's own role they might make it more appreciated and productive in the wider organisation.

Nothing in this article should limit the ambition of project management professionals. Ours is a discipline for the full time, the part time and the sometimes. Individuals moving in and out of project management are welcome. In particular our success as a profession will largely be reflected in the number of us who progress on from management to director level in organisations.

Any feedback to the author will be welcome.

#### **Footnote**

*There is yet an eighth limit, but that is for another provocation.*

## About the Author



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**David Shannon** is a senior advisor and interim manager. He designs, delivers and audits major change programmes and projects in the private, public and charity sectors. He has been voted one of the ten top project management personalities in the UK. Since 1988 with Oxford Project Management he has delivered major improvements in over 100 assignments for blue chip clients in the UK and internationally. He was an institutional development specialist with the World Bank during 1985-1987 and worked on capital projects in the City of London, the Middle East and Far East during 1974-1985. Prior to 1974 he worked on civil, transport and urban renewal projects as an engineer. Over the last 50 years, he has worked on, managed and advised on many programs and projects around the world.

David served as editor of three widely influential guides published by the Association for Project Management (APM): *Directing Change*, *Co-Directing Change* and *Sponsoring Change*, guides to the governance of project management. He has published and presented papers in academic and professional journals and conferences including: APM's *Project Magazine* and *Yearbook*; *Conference of the European Academy of Management*; *IPMA World and Regional Congresses*; *Kazakhstan Institute of Management, Economics and Strategic Research*; and the *Ministry of Finance Concept Symposium*, Norway. He contributed the *Governance* chapter to APM's 6<sup>th</sup> edition of *Project Management Planning and Control*.

He has been a member of the Institution of Civil Engineers since 1968 and was a Fellow of the Institute of Consulting/CMI in the UK. Elected both an Honorary Fellow and Fellow of APM, David previously served APM as Director and Head of Professional Board (1993-2000), Deputy Chairman (1998-2000) and Interim Chief Executive (2000). He is a past or current member of other professional societies in the UK and elsewhere.

David holds a B.A. in Engineering (with honours) and M.A. from Oxford University, and a Diploma in Accountancy and Finance. He can be contacted at [davidwtshannon@gmail.com](mailto:davidwtshannon@gmail.com)