

PROJECT MANAGEMENT: PAST, PRESENT AND FUTURE

PETER E RICHARDS

Published in the Project Manager Issue 12 (March 2012), Cape Media, Cape Town www.theprojectmanager.co.za

The concept of project management: past present and future, presents an enigma. Do we mean the historical role of the profession, its evolution to the present, and the development needed for its future? Or, do we mean projects, and their management: past, present and future? And, can we deal with the past as though it were past; the present, as though it was the topic of a new era; and the future in terms disconnected from the roots that it has in today? Lastly, what do we hope to learn by this exercise, and will our understanding make us better project managers?

The answer to the last question is governed by the threat of crisis: the threat that as we walk along the length of the 'see-saw' of our profession, we forget that the pivot is ever advancing beneath our feet - and that balance is determined by the weight of the learning and experience that lies behind in equilibrium with the demands of what is already within our view. If we lag, we slip back and become irrelevant and, if we move ahead, beyond the point of balance, we are thrust forward and lose our footing. There is also the place where we stand: ever shifting, rising and falling, to prick our senses and make us respond to the demands of the moment.

A review of the different definitions developed over the years to describe the function of project management is very instructive: not only by what they include, their context and their perspective, but by what they also leave out in terms of our current understanding. Edmund Burke, a philosopher and thinker in the period known as the Age of Reason (1651-1794), once remarked that he had "...no great opinion of definitions. For when we define, we seem in danger of circumscribing nature within the bounds of our own notions.....instead of extending our ideas to take in all that nature comprehends, according to her manner of combining" [and we are thus] "limited in our enquiry by the strict laws to which we have submitted at [the beginning of] our setting out" (Burke, 1759). An accurate description, I think you will agree, especially for those of us who have developed our own understanding in the field of project management over a long period. After twenty nine years in the profession, I am just as challenged with every new project as I was when I first set out in my career in 1983. The reason is because the distinctiveness of projects in terms of objective, environmental dynamics, resources and measures for success, challenges the structure and configuration necessary for project delivery on every occasion - no matter how repetitive the nature of the project! A framework, therefore, that is governed solely by rules, laws and rigid methodologies of process (although useful in themselves) frequently creates a paradigm that stifles critical thinking. I have thus come to the conclusion that the answer lies rather in the establishment of more commonly understood

principles in order to cultivate reasoning and judgement for each new circumstance.

THE PAST

Based on a review of academic research taken from the 1950's. R.P. Oisen defined project management as "the application of a collection of tools and techniques (such as CPM and matrix organisation) to direct the use of diverse resources toward the accomplishment of a unique, complex, one-time task within time, cost and quality constraints" (Oisen, 1971). The definition encapsulates the practice of project management as it was evolving at that time in military and space systems development. Both were highly controlled environments and not generally exposed to the vagaries of market, resource instability or any other external factors. The focus was narrow: a "one-time" task to which a "collection" of tools and techniques (taken mostly from industrial manufacturing) were brought to bear and evaluated only in terms of internal measures, which today are generally regarded as dynamically balanced constraints and not measures of project success. The focus of academic research at the time was placed on operational research and quantitative methods of management (Cicmil, 2006), a system developed within the so-called "Modern Era" and characterised by the need to improve human existence through technology using the tools of rational management (Van Gelder, 1991). The 1950's is generally regarded as the time at which project management arose as a distinct management discipline based on an engineering model (David I. Cleland, 2006)

Twenty years later in the 1970's, the ideas of post-modernism, which started in the 1930's, was now starting to take hold in the post-war generation. This generation had started to reject the belief in man's inevitable progress through the conquest of nature. The optimism of the modern era (i.e. the discovery of truth through rationality and logical argumentation) gave way to a growing pessimism that the world was not becoming a better place to live in. There was already proof of an alarming depletion of natural resources, evidence of the first overt signs of global warming and noticeable effects from an exponential rise in population growth. These factors made many people realise that the world's ecological system is fragile and that the survival of mankind was under threat. The Enlightenment model of the conquest of nature by humans started to be rejected in favour of a need for cooperation in every sphere of social, political and economic endeavour (Grenz, 1996). It is not surprising to learn, therefore, that pressure from stakeholders outside the project environment had started to increase. The situation was exacerbated by monetary inflation brought about by the oil crisis and a resultant escalation in building costs. For the first time, the time value of money had become a critical factor in project viability and many projects were cancelled as a result. For these reasons, human resource management and leadership became an added consideration in the field of project management (Morris, 2011). It was not until 1996, however, that human resource management found its way to be included in a formal definition of project management. In 1996 the British Standard defined project Management as "the planning monitoring and control of all aspects of a project and the motivation of all those involved in it to achieve the project objectives on time and to the specified cost, quality and performance" (British Standard in Project Management 6079, 1996).

The two most distinct developments evident in this new definition was that project management had moved away from the concept of a "one-time task" to a more holistic and multi-dimensional notion of a "project". Human resources too were now under consideration with the need to lead, and to manage "the motivation of all those involved".

THE PRESENT

I start my discussion on the present era with the role played by Information Technology (IT). I do so because I believe that project management in the present has been defined by the application of IT. It has created a demand for project management skills far beyond the role for which the profession was originally conceived, opening opportunities for skilled project managers in every area of business, industry, academia, Government and the non-profit sector. (Cicmil, 2006). Advances made in operational research over this period also did much to equip the project manager with sophisticated tools in IT for planning and communication. Since project management began to fulfil a far wider role, the field of Enterprise Management opened up to it, resulting in the development of several organisation maturity models and standards, more particularly PMI's Organizational Project Management Maturity Model (OPM3®), now in its third edition.

As a result of the progress and innovation of Information Technology, however, the world has accelerated towards a level of global connectedness and integration hitherto unknown to man in terms of all its relationships - culture, people and economic activity. The result is an environment of unprecedented complexity and the need to manage continuous change. It is, no doubt, appropriate that the Association of Project Management in the UK defines project management on their website as "the way of managing change" (<http://www.apm.org.uk/WhatIsPM>). They clarify their definition by explaining that the definition implies two characteristics: "uniqueness" in regard to the specific objectives of the project, and the "transient" ["short-lived"] nature of the endeavour.

I am inclined to add two further issues that characterize "the way of managing change" in the present era: (1) the flexibility needed in the choice of delivery model. (I am not persuaded that the same delivery model can be used in every context. For example, the model used for project delivery in the built environment cannot be used blindly in the realm of social development); and (2), "the responsiveness of the project to the dynamic environment in which it is delivered". I say this because no project is delivered in a vacuum. Project objectives must remain sufficiently fluid to meet changed demands over time. Each project is directly affected by both the immediate and the remote environment. The project product, therefore, must be sufficiently malleable to make change possible. It should also be borne in mind that variable conditions lead to disparate demands. This situation leads to a breakdown of order. In the present era, order is not always linear and the rules of reductionism, predictability and determinism do not always apply. Physical science has long been confronted with this reality and project management as a social science, in my view, is no exception. In fact, the time is long overdue for a definition of project management that reflects this reality.

THE FUTURE

The future of project management, I believe, should be discussed in terms of matters firmly within our view. There are significant issues. I believe that the factors that will shape the nature and role of project management over the next few years are the matters that flow from sustainability, social justice and the Green Economy. The issues are inextricably linked but the emphasis of each one is different.

Sustainability is based on the principle of stewardship. This is because of the limitation of resources. Project managers, therefore, need to consider the resources likely to be consumed in order to achieve project delivery. In regard to renewable resources, the issue is sustainable yield. In other words, the rate of harvest should not exceed the rate of

regeneration. For non-renewable resources, there should be equivalent development of renewable substitutes. Waste generation also should not exceed the assimilative capacity of the environment. Critical success factors need to be determined on each project that serve as both internal and external measures to the project. Consultation should be wide and governance transparent. (Daly, 1990)

Social justice is based on the concept of human rights and equality, cultivating respect and promoting the dignity of every human being. We cannot here discuss the formal and informal structures required in society, politics and economics to give effect to these matters but I do believe that projects, by their very nature, create opportunities of their own that make the objectives of social justice possible, even if only in a small way.

Projects undertake the spending of capital, using a temporary organization, on a particular technology platform, to achieve certain objectives. The opportunities for the development of innovative project structures and management process to promote the principles of social justice within this framework are relatively easy to accomplish, with even the minimum amount of strategic planning. Social justice too can be promoted as an internal project measure and in terms of its external impacts.

Finally, the last issue which is still going to impact heavily on the profession is projects undertaken in the Green Economy. The Green Economy is premised on the idea of replacing petroleum extraction with the exploitation of biomass (e.g. food and fibre crops, grasses, forest residues, plant oils, algae, etc.) where the industrial production of plastics, chemicals, fuels, drugs and energy depends, not on fossil fuels, but on biological feed stocks. The hope is that the Green Economy will provide a Plan "B" for planet earth. The current problem, however, is the lack of an international framework on food security, agriculture and climate policy. The situation leads immediately to a lack of governance structure so necessary for the management of projects. Project Managers, therefore, must permit their project planning to be informed by strong social movements in the field as well as by formal and informal structures in civil society.

In closing, it should be said that the purpose of our inquiry has been to grow our understanding of the contextual issues that drive the evolution of project management, and the manner in which they affect the way in which we practise our profession. We should always be alive to the wider questions of social, political and economic thinking that determine the choice of, and possibly even the need for the development of, new and innovative, "tools and techniques" that need to be applied in a particular circumstance. Projects have an internal dimension but they also have an external aspect. The project manager, therefore, should be penetrating in the evaluation of both before making a decision on how to proceed. Projects, however, are seldom delivered in a static environment. Planning, therefore, should include scenarios that permit change. In other words, "application" should be tempered by "judgement". Lastly, definitions in the physical sciences are generally more reliable than in the social sciences. I say this because the former are formulated in a general endeavour to encapsulate universal laws. In the social sciences (e.g. project management), they should be approached with more caution.

- o O o -

Bibliography

British Standard in Project Management 6079. (1996).

Burke, E. (1759). A philosophical enquiry into the origin of our ideas of the sublime and beautiful (2nd ed. ed.). London: R. & J. Dodsley .

Cicmil, S. a. (2006). New possibilities for project management theory: A critical engagement. *Project Management Journal*, 37(3), 111-122.

Daly, H. (1990). Toward some principles of sustainable development. *Ecological Economics*(2), 1-6.

David I. Cleland, R. G. (2006). *Global project management handbook*. McGraw-Hill Professional.

Gelder, V. (n.d.). Postmodernism as an emerging worldview. 413.

Grenz, S. J. (1996). *A Primer on Postmodernism*. Cambridge, United Kingdom: William B Eerdmans Publishing Company.

Morris, P. (2011). A Brief History of Project Management. In: *The Oxford Handbook of Project Management*. (J. a. PWG Pinto, Ed.) Oxford: Oxford University Press.

Olsen, R. (1971). Can project management be defined? *Project Management Quarterly*, 2(1), 12-14.

Project Management Institute. (2008). *Project Management Body of Knowledge (PMBOK Guide) (4th ed. ed.)*.

Van Gelder, C. (1991). Postmodernism as an Emerging Worldview. *Calvin theological Journal*, 26(2), 412-417.