# COLLABORATION AMONGST PRACTITIONERS, ASSOCIATIONS AND ACADEMIA: A CASE STUDY IN PRACTICE.

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## Abstract

This paper demonstrates that symbiotic relationships can be developed and hopefully maintained between academics, industry representatives and professional associations. A case study is presented to provide evidence of how a space was created by the Australian Institute of Project Management (AIPM) for academics and project management practitioners to share ideas and develop concepts to expand current thinking and knowledge. The discourse will provide an outline of the approach adopted by the AIPM to facilitate collegiality amongst academics to provide practical solutions that industry have been demanding.

## Introduction

The project management industry in Australia has been observed to be disconnected from the development of new theories in academic institutions. The AIPM identified this gap in 2007 and established the Knowledge and Research Council (KRC). The purpose of the KRC is to provide a space for researchers, academics and those with project management knowledge. This space is for the sharing of ideas, developing concepts, investigating issues relating to the higher education sector and encouraging research and development of best practice in project management or other disciplines or professions which may affect project management.

The KRC has instigated several initiatives that are managed by representatives from a range of Australian Universities. These programs include the Project Management Research Foundation; a Doctoral Research Group; a Learned Journal Committee; several Communities of Practice and other working groups that are conducting research into Benchmarking, Recognition of Prior Learning; Thought Leaders, Student Initiatives and an Information Resource Centre.

## Research and Development

There is a need for the shared understanding and development of project management theories and practices by industry, associations and academics through ongoing research and development. This is currently being undertaken using structured and ad hoc approaches, such as collaborative applications for funded research or individual activity by Doctorial candidates. The aim of most academic institutions, as with associations and organisations undertaking research, is to build a reputable research profile. However, it is the academics that ultimately integrate research with teaching and learning by assimilating research into course material. Ideally, the academics will establish research partnerships with industry and associations to foster and support research grant proposals and consultancies.

Research collaboration is also encouraged through staff and student exchanges to develop unique and innovative research approaches. Some examples of current organisational research centres include:

- NASA / USRA Centre for PM Research: This effort is the result of a joint collaboration between NASA and the Universities Space Research Association (USRA) to engage universities in world-class research to address internationally significant problems in the discipline of program and project management.
- Australian Research Council (ARC): The ARC is a statutory authority within the Australian Government's Innovation, Industry, Science and Research (IISR) portfolio. Its' mission is

to advance Australia's research excellence to be globally competitive and deliver benefits to the community through collaborative research projects.

- International Research Network for Organising on Projects (IRNOP): This network was founded in 1993 to connect scholars with a background in business, economics, engineering and other fields, with a common interest in projects, project organisations and temporary systems.
- The Standish Group: Since 1994, The Standish Group has provided commercial project management research and reports within the "CHAOS Knowledge Centre".
- Stanford Research Institute (SRI): SRI International is an independent, non profit research institute conducting client-sponsored research and development for government agencies, commercial businesses, foundations and other organisations.

Organisations also rely on associations to provide direction based on relevant project management research. This is anecdotally due to the perception that associations are unbiased in the pursuit of excellence in their profession. The Project Management Institute (PMI) established a Project Management Research Program in 1997 to advance the science and profession of project management. The (Australian) National Audit Office, under the directorate of the Department of Prime Minister and Cabinet, refers to the AIPM as a research resource in the Implementation of Programme and Policy Initiatives document.

The AIPM established a Research Committee within the KRC to identify, review and facilitate research into project management. The Committee will develop business cases for the funding of research projects for Board consideration. Research topics will be proactively sort via industry through a Reference Group representing various sectors. The topics will then be reviewed against agreed criteria, funding opportunities will be investigated and researchers will be briefed. To undertake this process two initiatives have been started: the Project Management Research Foundation and the Doctoral Research Group.

## Project Management Research Foundation

To facilitate interaction between industry, academia and the Australian government, the Project Management Research Foundation will further develop research, knowledge creation, knowledge documentation and dissemination in project management. To support this, it will undertake, according to the KRC Business Plan 2008:

(a) to conduct, encourage and assist or facilitate the conducting of research in connection with or that is likely to benefit project management;
(b) to disseminate information and advice relating to technical matters in connection with project management;
(c) to publish technical reports, periodicals, books and papers in connection with project management;
(d) to conduct, according to law, public appeals for funds to assist it in the carrying out of its functions;
(e) to train or encourage and assist in the training of persons for the purposes of the carrying out of research as referred to in paragraph (a);
(f) to make donations or gifts or allocate funds to other bodies or persons for the purpose of furthering research with respect to project management; and
(g) to do and perform such incidental or consequential acts and things as may be necessary or expedient for the promotion of research in project management or otherwise for the performance of its functions.

## Doctoral Research Group

The Doctoral Research Group will conduct research on approved topics in project management to ensure that research is "applied" to issues relevant to the project management industry. The aim is to facilitate the exchange of ideas and resources between the users of research and the researchers. The process will be driven by the PMRF through the application from industry to conduct research into approved areas of study. An additional avenue for research ideas to be sourced is through the publication of a list of project management Doctoral candidates. Information will be listed by the candidate's thesis title, abstracts and academic institution for

industry to review from time to time. To support these Doctoral candidates a mentor program will be established between the academic institutions.

## Journals

Research generates knowledge about projects and their management (Smyth and Morris 2007) and can be reported in a variety of mediums, such as journals. As we move from the Industrial Age to the Information Age, to achieve successful outcomes knowledge must be created and converted in an often evolving and dynamic environment. Nonaka, Toyama and Konno (2000) have developed a model to define the knowledge creation process in terms of three elements:

1. The SECI process: the conversion between tacit and explicit knowledge through Socialisation, Externalisation, Combination and Internalisation.
2. *ba:* A place where knowledge sharing, creation and utilisation can be shared.
3. Knowledge Assets: The moderation of inputs and outputs to the knowledge creation process that can be defined as experiential, conceptual, systematic and routine.

The continuous creation and conversion of knowledge is amplified through the SECI process which may be seen ultimately as the space created by the collaborations resulting in the *ba*. The process starts with individuals and expands "as it moves through communities of interaction." Nonaka, Toyama and Konno (2000, pp 12). This transfer of knowledge can occur at many different levels - biological, physiological, and social (Whitty 2005) and the initiatives will possibly contribute to explicit or tacit knowledge transfer.

A Learned Journal Committee was established within the KRC to transfer project knowledge to members of the AIPM on a periodical basis. The delivery mechanism is twofold, firstly to provide members with information and assistance to publish papers, and secondly, to negotiate subscriptions for members to access information from relevant journals. To achieve this, a review of available journals focused on project management is being conducted to assist members to choose a suitable pathway for publishing their research. The document will provide details of the publication, the impact factor, the publishing institution, contact details and referee requirements. To provide additional opportunities for learning in project management, relevant material will be refereed and published in a series of whitepapers by the AIPM.

## Communities of Practice

Within organisations, between individuals and across organisational boundaries, communities of practice facilitate knowledge creation, transfer and learning. The concept of communities of practice can be traced to the medieval craft guilds informally established to share knowledge through their interests and expertise.

These communities are comprised of "groups of people informally bound together by shared interest, shared expertise and passion for a joint enterprise" (Wenger and Snyder, 2000). They might include the following characteristics (Hildreth, 2000; Wenger and Snyder, 2000 cited by Crawford 2000):

➢ Common language - the group has some sort of language of its own
➢ Shared background - the members have some sort of shared background or knowledge
➢ Common purpose - the group has some sort of common purpose which gives it an internal impetus
➢ Creation of new knowledge through the work of the group and the interaction of the members some new knowledge will be created for those members
➢ Dynamism - this relates to the social distribution of the knowledge in the group
➢ Evolution - there is some sort of development in the group more than simply social interaction
➢ Unofficial - it evolves rather than being created
➢ Voluntary - membership will generally be voluntary
➢ Narration - swapping "war stories" is a key way in which members share domain knowledge
➢ Informal - the group is often informal - i.e. there is no hierarchy
➢ Fluidity - newcomers arrive and old-timers leave
➢ Similar Jobs - in an organisation there will be individuals doing similar jobs

> ➤ Self perpetuating - as they generate knowledge they reinforce and renew themselves
> ➤ They benefit from cultivation but not from control

The AIPM has established several informal communities of practice that the KRC manages within a Special Interest Group (SIG) framework. Each SIG meets and develops a repository of information in relation to different facets of higher level knowledge. SIGs that already exist within the AIPM include: Women in Project Management (WIPM); Complex Project Management; Complex Execution Working Group for Finance; Project Management Office (PMO) SIG and PM Professional Development Group (PMDG) SIG. In addition, various Chapters of the AIPM have established geographical SIGs to discuss issues relevant to those regions. The SIGs are not limited to what is currently listed as other topics of interest can be explored as required. These topics are raised through the Reference Group of the KRC for investigation and may lead to areas for further research within the Project Management Research Foundation.

## Working Groups

A variety of working groups are being managed to develop case studies for use in project management courses, creating benchmarking models and to develop support services to individuals studying project management at the tertiary level.

## Benchmarking

The process of developing organisational and individual competency to meet best practice standards can be compared against internal and external sources. This in turn can provide a benchmark, or baseline, for comparison and facilitated knowledge sharing that, if repeated, can provide an ongoing cycle of improvement that could be linked to the Deming Cycle (or Shewhart Cycle). This process is typically used in quality control and is an iterative four-step problem-solving process made popular by Dr W. Edwards Deming.

Benchmarking can also provide a basis for questioning current practices which can lead to structural change and performance improvement. These steps can be seen to demonstrate a level of project management maturity which can be measured transparently by any one of the widely available models. The results from adopting a maturity model can provide an organisation with a benchmark to compare their performance against industry averages.

The diagram below shows the steps involved for an organisation to demonstrate this process where benchmarking is the fourth level of maturity, the highest being the fifth level which requires the demonstration of continuous improvement (Kerzner 2001).
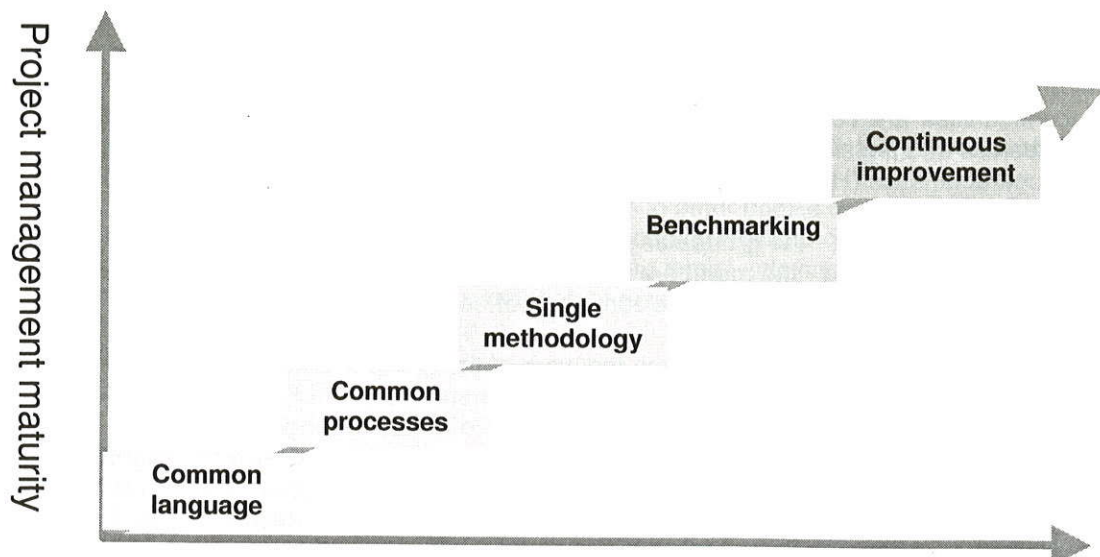
Pinto (as observed by Whitty 2005) suggests, in his review of the current state of project management thinking, that benchmarking and the unification of the project management body of knowledge are two principle directions in which traditional research has been evolving. This may reflect the need of industry to identify the critical elements that constitute "best practice" to expedite and repeat successful project outcomes.

Investigation is currently underway within the KRC to establish a framework where organisations can share and benchmark their project management activities. This will create a central repository for the accumulation of project management data from organisations within both the government and the private sector. Each contributor's data will be kept confidential and secure, but in return for contributing, the contributor will receive a report benchmarking their data against population wide data. Benchmarking will identify what the current practices of project management are within these sectors. This will then provide indicators and opportunities to conduct research into why these practices are being used and how they are delivering results. The knowledge and experience of these organisations can be consolidated and shared to strive for excellence in project management.

## Recognition of Prior Learning

There exists a variety of ways students can gain entry and possibly exemptions from project management subjects based on Recognition of Prior Learning. A study is being conducted by the KRC into the criteria used by academic institutions to recognise prior learning against the AIPM RegPM certification process and other relevant project management qualifications.

## Thought Leaders Seminars

A series of seminars is being managed by the KRC to provide Australian project managers with access to local and international thought leaders in project management through industry and academic collaboration. Members of the KRC work with the AIPM to deliver seminars in several capital cities generating income for the speaker and awareness for the AIPM and the host academic institutions. In February 2008 Michel Thiry, a UK based widely published project management author, presented a paper on Program and Portfolio Management. Plans are confirmed for international speakers in July on the topic "Tools for Complex Projects" and in October on Leadership in the Project Oriented Organisation. These seminars provide an opportunity for the AIPM to provide a leadership role and develop relationships amongst members, non-members, industry and academia.

## Student Initiatives

In addition to the Doctoral Research Group, the AIPM is investigating what initiatives can be developed to assist project management students to join and be promoted within the AIPM. Providing free membership for full time project management students and a nominal fee for part time students was launched in 2008. Further work is being done to instigate a co-ordinated award system across higher education providers and linking industry opportunities for scholarships on research topics.

## Information Resource Centre

The Information Resource Centre is AIPM's member only information service. It provides access to publications and research in project management across all industries. Services are based on AIPM's 5000 item collection of project management resources and is managed by a full-time Information Professional. Resources include material from academic journals, conference proceedings, the internet and other printed sources. The Centre fulfils non-automatic document requests for articles and conference papers, research requests and circulates a monthly newsletter. New information resources are also created in the form of survey data, short to medium publications, reference tools and web content.

## Conclusion

The AIPM's Knowledge and Research Council provides a forum to facilitate a "conversation" between industry and academia. Access to leaders in the discipline of project management enables knowledge to be shared in order to challenge the accepted practices, thus facilitating innovation. These collaborative relationships are not limited to students and academics who provide research outcomes for industry to adopt or *vice versa*. It is the challenge to drive experienced practitioners into action that will provide ongoing opportunities to deliver enhanced benefits in the future.

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