

A commentary on extending project management integration services into new domains ¹

By Alan Stretton

INTRODUCTION

This commentary looks at opportunities to extend project management know-how on integration into new external domains. Currently there are limited external integration-related services which support some client organisations with their strategic planning and early strategic development initiatives. I have frequently discussed these in recent articles in this journal. I have also discussed broader aspects of project integration and interface management in articles referenced below, together with their potential for extension into longer-term futures for project management. This article will update, consolidate and extend some of these materials.

It will be noted first that integration is an important component of management at large. This also applies in project management, but project integration is typically a more intensive task because of dynamic project environments. The broad equivalence of project integration and project interface management will be discussed, as will the necessity for project managers to develop substantial skills in managing the many internal and external interfaces typically associated with projects.

We then broadly summarise the many existing project-related strategic planning and strategic initiative support services for external client organisations being provided by certain project-based organisations and note that most of these services have substantial integrative components. Project managers are typically well equipped from their own experience to help with integrative issues in such organisations.

We then turn to potentially broader application domains for such integration-related services. We will look at ongoing growth of specialisations, and the increasing need for people with appropriate skills to integrate their work. This need has been recognised by a variety of people, and we will discuss Mintzberg's "integrating managers" in certain contexts, and proposals by others for specialised "synthesists" to undertake this role in broader contexts. It will be contended that project management is uniquely placed to add such a role to its longer-term aspirations – perhaps as "integration managers"?

Finally, we will look at how this may link with a recent suggestion from PMI's le Manh about possible longer-term movements from project managers to "change makers". "Integration management" could be seen as a subset of the latter, but one whose deployment would appear to have the potential to be most readily advanced.

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INTEGRATION IS A KEY FUNCTION OF MANAGEMENT AT LARGE

As I first noted in Stretton 2013m, I have always considered that integration is one of the really key jobs of most types of managers. This is a major reason for having managers in the first place, as is implicit in many of the classical definitions of managers. For example, Allen 1962 said

....we can define a manager as someone who is so placed organizationally that only he has the perspective, objectivity, and balance with respect to the varying and sometimes conflicting needs of his subordinates.

In this definition, the focus of managers' efforts is decision making in the context of providing an overall balanced amalgamation of contributions by subordinates.

A more specific connection of management with integration was made by Lawrence & Lorsch 1967, who published an article in the Harvard Business Review entitled "New management job: the integrator", in which they defined integration as follows:

As used in this article, integration is the achievement of unity of effort among the major functional specialists in a business.

Another way of looking at the situation is to ask the question, "If the manager is not acting as an integrator, who is?" The answer to this question is rather obvious.

INTEGRATION IS ALSO A KEY FUNCTION OF PROJECT MANAGEMENT

The key importance of integration in project management

In Stretton & Crawford 2011, we included the following quotation from PMI 2008:71, which appears to summarise the role of integration in the context of managing projects rather well.

In the project management context, integration includes characteristics of unification, consolidation, articulation and integrative actions that are crucial to project completion, successfully managing stakeholder expectations, and meeting requirements. Project Integration Management entails making choices about resource allocation, making trade-offs among competing objectives, and managing the interdependencies among the project management Knowledge Areas.

It appears to be widely accepted that the project management role is primarily an integrative one. As Streun 2011 has expressed it,

In fact, a case can be made that integration is the capstone skill for excellent project managers – the skill that, more than any other, reflects the project management role.

Morris 2013:284 puts it this way:

Project management’s core function is integration. Its focus is holism (integrating to achieve success at the overall system level). Its work is typically interdisciplinary. The project manager is ‘the single point of integrative accountability’ in achieving the outcome desired by the sponsor; and to the extent possible, other stakeholders.

Project integration and project interface management are broadly equivalent

Stuckenbruck 1988:79 links project integration with interface management, as follows.

Project integration is just another way of saying interface management, since it involves continually monitoring and controlling (i.e. managing) a large number of project interfaces.

The following listing of potential project interfaces, which derives from Stretton 2016i, gives an indication of the possible variety of interfaces which may need to be managed.

INTERFACES WITH THE PROJECT’S (WIDER) EXTERNAL ENVIRONMENT	INTERFACES WITH THE REST OF THE (MATRIX) ORGANIZATION	INTERNAL PROJECT INTERFACES
<ul style="list-style-type: none"> ▪ Government ▪ Economic climate ▪ Finance ▪ Community groups ▪ Media ▪ Regulatory agencies ▪ Competitors ▪ Suppliers (subcontractors, consultants) ▪ Other disciplines ▪ Owner (customer, client) ▪ Cultural interfaces ▪ Other external stakeholders 	<p>Organisational interfaces</p> <ul style="list-style-type: none"> ○ Other projects ○ Top management ○ Line management ○ Line personnel ○ Social contacts ○ Personnel and training ○ Financial system ○ Technical support ○ Computer programmers ○ Customer or client ○ Sales and marketing ○ Operations and maintenance 	<ul style="list-style-type: none"> • Major breakpoints in the PLC • Major breakpoints between activity subsystems within phases • Change of responsibility interfaces • Information interfaces • Material interfaces • Time interfaces • Geographic interfaces • Technical interfaces • Social interfaces • Personal interfaces • Review points

Figure 1. Examples of project interfaces from the PM literature – adapted from Stretton 2016i

In addition to the large variety of possible interfaces that may need to be managed, as illustrated in Figure 1, internal interfaces in particular can be so closely intertwined that a delay in one sub-system directly impacts on the work of many, or all, following dependent subsystems. This can most certainly affect the intensity of integrative effort required at such interfaces, as is indicated by Morris 1988:28.

The amount of integration actually required at an interface depends on both the size of the differentiation across the interface and on how much “pulling together” the interfacing subsystems need.

As an example, in the construction of high-rise buildings, delays can, and do, happen very frequently through a variety of causes. Temporary re-deployment of affected resources is not usually an option, so that “pulling together” integrative action is typically a very demanding – and ongoing – project management responsibility.

But project management involves more than integration/interface management

As I noted in Stretton 2016h, evidently there have been some who have regarded project management as being synonymous with interface management. However, as Dinsmore 1990:116 has emphasised, there is, of course, much more to project management than integration/interface management.

.....the sometimes-held notion that project management is synonymous with interfacing is incorrect; interface management addresses only boundary issues, or those that are “floating” between defined areas of responsibility. But a project’s problems are not necessarily concentrated at the boundaries.

This was, for example, reflected in PMI’s *Guide to the PMBOK* from the 1996 to the 2017 editions, where Project Integration Management was one of the nine or ten knowledge areas associated with project management.

However, in the revamped 2021 edition (PMI 2021) neither project integration nor interface management is discussed, or even included in its extensive list of definitions. This appears to me to be an untimely omission. I have seen no indications that the key importance of integration in the project management context has been in any way diminished in more recent times.

Indeed, as will be seen shortly, it appears to me to be potentially even more important in this increasingly VUCA era, albeit in a slightly different way, as will be discussed shortly.

Integration in project management is more intensive than in general management

Healy 1997:274-5 has pointed out that the intensity of integration/interface management required in the project context is markedly greater than in what he calls process management, as explained in the following quotation.

A difference between process and project management might be highlighted here. In process management, the interfaces also need to be identified and managed. However, as they are of a more permanent nature, there is opportunity to refine their management. In project management, the second chance does not exist to anything like the same extent.....

This recognition is particularly relevant to some of the possibilities for more externally focussed applications of integrative skills, to which we now turn. We start with discussing existing external applications of extended project-related services.

INTEGRATIVE COMPONENTS OF EXTENDED PROJECT-RELATED SERVICES

An extended range of currently existing project-related services

In a recent article in this journal, Stretton 2023c, I offered some expanded perspectives on project management involvement in the “fuzzy front ends” of projects. These included discussions of long-existing extended project-related services such as Front End Loading (FEL) provided by many Engineering, Procurement and Construction (EPC) organisations, notably in the mega-project sector, and Client Needs Determination (CND) services provided by organisations such as Civil & Civic (C&C) in less major sectors. I called these *External strategic initiative support services*, as indicated in Figure 1 below. This illustrates their relation to conventional external project management services, and to the five stages of a client organisation’s basic strategic management framework.

Some EPC and C&C-type organisations also provide earlier *External strategic planning support services*, as also illustrated in Figure 2.

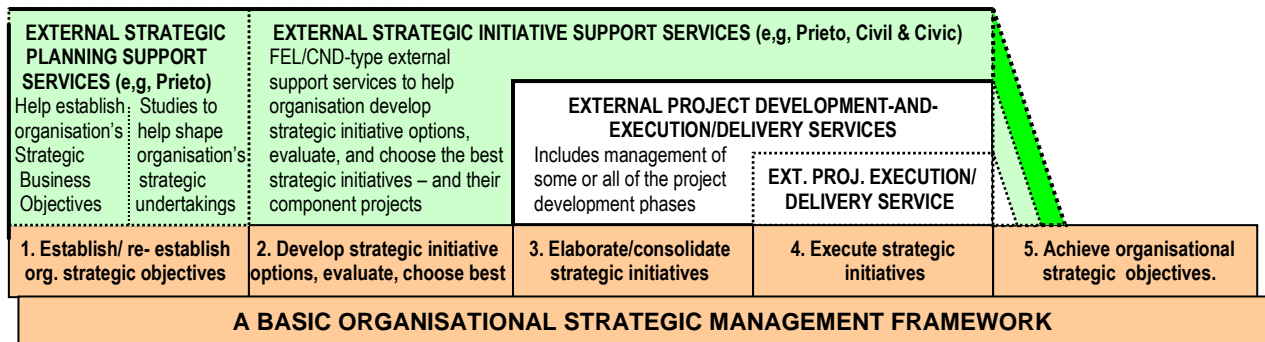


Figure 2. Representing a range of external project-related services in an org. strategic mgmt. context

Integrative components of strategic planning and initiative support services

I have had no direct experience of FEL and pre-FEL services provided by EPC organisations on mega projects, but can refer to presentations made by Ed Mellow, CEO of Independent Project Analysis (IPA). He emphasises the importance of what he describes as “shaping” on mega projects – which he describes as “Fashioning a real project out of a business opportunity”. Without attempting to describe this complex process, it can certainly be said that EPC organisations that provide shaping services are called upon to help integrate an extraordinarily wide range of relevant factors.

At less complex, but often very significant levels, Civil & Civic’s experience in its Client Needs Determination (CND) services quite commonly had to bring integrative skills to bear in helping client organisations find optimum strategic solutions.

Needs for integration within organisations at large

Indeed, in a broad organisational context, Morris 1988 discusses needs for integration as follows.

Integration becomes important when the degree of organisational interdependence becomes significant. Research has shown that tighter organisational integration is necessary when

- The goals and objectives of an enterprise bring a need for different groups to work closely together
- The environment is complex or changing rapidly
- The technology is uncertain or complex
- The enterprise is changing quickly
- The enterprise is organisationally complex

One or more of these circumstances tended to be in place in most of the organisations for which Civil & Civic was providing CND services, and the need for helping them integrate their strategic work was part and parcel of these services. Perhaps the most prominent example of quite intensive integrative help was in the healthcare sector.

Many years ago, Civil & Civic director Iain Gauld, who had overall responsibility for our services to the healthcare sector, pointed out to me that this sector was becoming increasingly fragmented, with more and more areas of specialisation being developed. This tended to make ongoing management in healthcare difficult enough in its own right.

And it most certainly complicated detailed planning of new healthcare ventures, such as new hospitals, or major extensions to existing facilities. In some cases this was even further complicated by the absence of anyone in the customers' own ranks who had the combination of authority and know-how to undertake the required coordination and integration.

Project management is well placed to help organisational integrative initiatives

In either event, the relevant Civil & Civic project managers had to become quite deeply involved in the clients' strategic issues, and particularly in helping reconcile legitimately conflicting strategic requirements of many disparate internal specialist groups and operational people, and then integrate these into an acceptable overall solution. This certainly tested the integrative skills of our people – but they were already well experienced in integrating components of their own projects, and generally in more dynamic contexts than those of their client organisations.

The above experiences, particularly in the healthcare sector, have long since suggested to me that project management is particularly well placed to expand the scope of its integrating work well beyond the scope of the above types of situations.

BROADER APPLICATION DOMAINS FOR SUCH INTEGRATIVE SERVICES?

Growth of specialisations, and the need for people to integrate their work

The ever-evolving movement towards greater degrees of specialisation in avocations and disciplines in the world at large appears to be a natural response to the ever-growing complexity in our environment. Although such specialisation solves many problems, there are adverse consequences which are not always effectively addressed. One of these is a lack of people to integrate the work of many different specialists to achieve broader goals. This particular consequence is frequently discussed in some of the more forward-looking general literature, but less frequently in the general management and project management literatures.

The need for people to undertake such integrating work has been recognised by a variety of people.

Mintzberg’s “Integrating Managers” in certain contexts

I first came across specific discussion about “*Integrating Managers*” in the general management literature in discussions by Mintzberg 1979:165-168, in which he described them as follows.

Integrating managers may be brand managers in consumer goods firms, responsible for production and marketing of particular products; project managers in aerospace agencies, responsible for integrating certain functional activities; unit managers in hospitals, responsible for integrating the activities of doctors, nurses and support staff in particular wards; court administrators in governments who “tie together the diverse and organizationally dispersed elements that make up the criminal justice system -”.

This is a very wide-ranging descriptor, within which Mintzberg specifically includes project managers – in his case in aerospace agencies, although, as we have discussed, this “integrating manager” role applies to project management in most application areas as well. We can see that Mintzberg also includes unit managers in hospitals, which is an area we have also discussed above.

However, we can cast the integration net even wider.

Stretton & Crawford’s “Synthesists” in broader contexts

Over a decade ago, Lynn Crawford and I borrowed the descriptor “synthesists” from Cetron & Davies 2010, and Tow & Gilliam 2009, to describe people who integrate the work of many different specialist disciplines to achieve broader societal (or similar) goals (Stretton & Crawford 2011).

Cetron & Davies and Tow & Gilliam cast a much wider net than Mintzberg. Their concern is with increased specialisation at large in different professions and avocations, and associated downsides.

Tow & Gilliam 2009 broadly argue along the following lines.

- Specialisation has not been a planned or coordinated process, and as a result, there are significant knowledge gaps between specialties. As sub-specialisation proceeds, the number of gaps grows at a rapid and increasing rate.
- Specialists create unique vocabularies to allow them to communicate more effectively amongst themselves, but this trend further restricts their ability to communicate with others outside their specialty.
- Therefore, whenever resolution of a particular problem requires coordination between different specialists, or lies in a gap between two or more specialties, a serious challenge is posed.

Low & Gilliam go on to say the following about resolving these types of situation:

The ideal solution to this problem would take advantage of the strengths inherent in specialization while finessing the pitfalls. Ideally, when faced with a multidisciplinary problem, there would be someone who could:

- Identify which combination of specialties is likely to solve the problem and organize a team.
- Motivate the individuals to work as a group towards a solution to the problem.
- Achieve effective communication (directly and indirectly) between specialists.

If enough people try this approach, and train others to do so, it will become a recognized discipline: *Synthesis*.

Cetron & Davies 2010 express similar sentiments:

There will also be a growing need for “synthesists”, individuals who are fluent in the languages of many different disciplines and can bridge departmental gaps. This skill will be vital for a multidisciplinary approach to problem solving in an increasingly complex world.

Evidently neither group of authors had any knowledge of the discipline of project management, and its integrative capabilities. Crawford and I suggested that this situation could represent a major opportunity for project management to occupy what appears to be vacant ground, before other, and less qualified, groups do so. As we have seen, project management appears to be particularly well qualified to occupy this ground. However, there are also some impediments, to be discussed shortly.

“Integration Manager” as an appropriate descriptor for broader contexts?

I have since felt that “synthesiser” is too fancy (or fanciful?) a descriptor for the broader context integration role. I considered many other descriptors, including facilitator, amalgamator and coordinator, but now feel that the descriptor “integration manager” is simple and accurate, and would be most readily understood by most people.

Dalcher 2019a includes integration in the following quotation, which is concerned with broader roles for project management at large.

To become influential, project management needs to consider the ability to integrate, extend and develop strategically in order to address wider organisational and societal concerns.

Unfortunately, project management itself has not evolved in ways that clearly demonstrate that it has the capability to integrate its own development. Some might describe its broadening applications, concepts and methods as pluralistic (e.g. Fangel 1993), which others might consider the above as indicative of fragmentation. Either way, there are few outward signs of project management’s ability to integrate its own development. This could be seen as unhelpful in any efforts it might make to extend its integrating services into other domains.

OTHER “REINVENTED” FORMS OF PROJECT MANAGEMENT?

The following quote comes from a recent article by Kerzner & Zeitoun 2022 in this journal, entitled “The reinvention of the project manager”.

Is that role [of the “reinvented” project manager] about managing, is it about leading, or is it an emerging set of ingredients that should be categorized differently and given new naming.

Le Manh’s “Change makers”

In the above, we have been discussing the potential reinvention of the project manager as an *integration manager*. Another type of reinvention was discussed more recently in an interview in this journal (Khelifi 2023), in which the new PMI President, Pierre le Manh, discussed a movement from project managers to *change makers*.

Over the years, very many writers in the project management literature have equated project management with the management of change. If I have understood le Manh correctly, he is looking to a longer-term reinvention of project managers to change makers.

How does this sit alongside my discussions of reinvention to integration managers?

“Integration managers” as subsets of “change makers”?

One way of looking at the above is to recognise that integration efforts will always be associated with change of some sort or other. On this basis, *integration management* could be seen as a subset of the more general *change management*.

On the other hand, we have been able to demonstrate a quite detailed progression from internal management integration know-how, through some long-standing external integration management services, to proposing the rather natural extension of the latter into much wider domains. I have not seen an equivalent detailed progression from project management to general change management, so that advocacy of the latter as a more generalised context is not so strongly supported.

A note on “new naming”: The need for accurate and illustrative descriptors

I have a slight difficulty with le Manh’s descriptor *change makers*, because *makers* appears to me to imply that this “reinvented” entity actually initiates change. I don’t believe that such a “reinvented” project manager would normally initiate significant change, but rather would *facilitate* the change process, in some form of partnership with an initiating organisation. Therefore *change facilitator* would appear to be a more accurate descriptor. However, the more robust *change manager* also appeals, even though it may imply an exclusive responsibility, rather than one associated with a partnership.

Similar comments can be made about *integration management*, which could normally be more accurately described as *integration facilitation*.

However, none of these descriptors really conveys what kind of change, or integration, is being referred to. It appears to me that this is a substantial disadvantage when “reinvented” project managers are trying to convey to possible partners, and/or to a wider public, just what type of potentially beneficial services they are offering.

Benefits from partnering to achieve broader coverage

As just indicated, I believe these types of broader form of project management would be best undertaken in partnership with an entity which is responsible for actually initiating the relevant change, or integrative activity. I had the impression that le Manh may also have had this in mind in relation to his *change makers*, judging by his mention of existing PMI “partnerships with specialized organizations like The Green Project Management or with the United Nations”.

I recently discussed partnering in some detail in Stretton 2022f in this journal, under the title *Commentary on “higher purposes” for project management, via partnering to tackle broad societal/ environmental issues* – so I do not propose to add any further notes on this subject in this article.

Concluding this section on other “reinvented” forms of project management

So, at the present time we appear to have a few people’s idea of a partial vision for a “reinvented” form of project management, but do not have a descriptor which clearly reflects its nature. Undoubtedly there are other people with quite different visions, and descriptors, for those visions. Furthering such discussions is important, not the least because they may reveal other opportunities for project management to contribute to the wider world in ways not yet thought of.

SUMMARY/DISCUSSION

This commentary has been concerned with opportunities to extend project management know-how on integration into new external domains – domains that go beyond current external integration-related services supporting client organisations’ strategic management. Its essential arguments have been as follows.

- Project managers necessarily develop substantial integration skills in the course of managing what are typically a multitude of both internal and external interfaces associated with their projects.
- They are therefore well placed from their own experience to help other organisations which have integration-type needs. This has been demonstrated by some project-based organisations such as EPC companies which have been providing CND, FEL and pre-FEL services to customer organisations over many decades – services in which integrative components have often been very prominent.
- It has been argued that increasing specialisation in avocations and disciplines in the world at large is also bringing some adverse consequences which are not always effectively addressed – most notably, a lack of people with appropriate skills to integrate the work of ever-proliferating specialists, to achieve broader overall goals.
- The need for such competent people to undertake this type of integrating work has been recognised by a variety of people, including Mintzberg with his “integrating managers” in certain contexts, and by some others who have proposed “synthesists” for broader contexts. It was suggested that the latter could be more appropriately labelled “integration managers”, and that project management is uniquely placed to add such a role to its longer-term aspirations.
- This suggestion was linked with another from PMI’s le Manh about possible longer-term movements from project managers to *change makers* (or *change managers*). *Integration management* could be seen as a subset of *change management*, but one whose deployment could be more promptly advanced, as argued above.
- Finally, it was suggested that further discussions on possible longer-term futures for project management should be encouraged, because they may reveal other types of new opportunities for wider contributions by this, and/or its “reinvented”, avocation.

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