### Edited by Markus Hällgren and Marcus Lindahl

Hällgren, M., Nilsson, A., Blomquist, T., & Söderholm, A. (2012). Relevance lost! A critical review of project management standardisation. *International Journal of Managing Projects in Business*, 5(3), 457-485. http://vw9tq4ge9f.search.serialssolutions.com/?ctx\_ver=Z39.88-2004&ctx\_enc=info%3Aofi%2Fenc%3AUTF-

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8378&rft.volume=5&rft.issue=3&rft.spage=457&rft.externalDocID=oai\_DiVA\_org\_oru\_47723&p aramdict=en-US

The relevance of project management

Management theories threaten to become irrelevant if there is not a strong and definite connection between the models and approaches that scholars use in classrooms and in research and the practice they are meant to depict. [38] Johnson and Kaplan (1987) claimed that this was the case in the field of management accounting. Their 1987 book, Relevance Lost - The Rise and Fall of Management Accounting , critiqued the status of that field, in which excessive theorising and non-practice-based research had resulted in an irrelevant interpretation of the discipline that was subsequently transferred to students through educational programmes.

A similar debate has taken place in recent years with regard to management and business schools, in which a claim similar to that of [38] Johnson and Kaplan's (1987) is being advanced. According to [28] Ghoshal (2005) and [7] Bennis and O'Toole (2005) for example, the teachings of business schools are a poor portrayal of real life management practice. An overly analytical focus and excessively theoretical refined models that contain only marginal real life content contribute towards the transfer of irrelevant knowledge. Ghoshal, perhaps the most outspoken critic, claims that potentially good management practice is threatened by bad management theories based on scientific and rational foundations that do not depict the complexities of everyday actions and situations. Ghoshal argues that unstable foundations lead to the inappropriate selection of deductive reasoning as a method of argument, biased assumptions and flawed partial analysis. Management theories thus become idealised descriptions of real life and have unsound and shaky foundations upon which it is not possible to base actions nor research. [43] Mintzberg (2005) outlined a similar argument, focusing on the consequences for education. The key point is that management models and "theories" are becoming increasingly irrelevant for managers. This raises the question of whether the same situation applies to project management (PM).

This paper aims to critically analyse the consequences of the diffusion of generic PM knowledge. The article discusses the development and consequences of PM standardisation in relation to education, research, certification and practice firmly based in other's research findings and other material used to

exemplify and clarify the argument where risk of relevance lost may exist. To this end the paper provides an overview and framework upon which to develop further research. The paper is therefore best considered as a thought-piece to encourage debate rather than as recommendations applicable to the practice framework in detail, or as providing full chains of evidence on the impact from standardisation upon the related areas of education, research, certification and practice in PM. To this end, some arguments may be exaggerated in order to clarify the point and challenge the reader. Like Ghoshal and Mintzberg's argument, the article contributes to a general debate in academia regarding the danger of losing relevance, in academia in general and PM in particular ([16] Chia and Holt, 2008; [29], [30] Grey, 2002, 2004; [52], [53] Pfeffer and Fong, 2002, 2004; [26] Friga et al. , 2003; [83] Knights and Scarbrough, 2007; [6] Bennis, 2010; a special issue in the Scandinavian Journal of Management (Vol. 23 No. 4, 2007)). More specifically, the paper contributes to an understanding of the consequences of standardisation of PM knowledge on education, research, certification and practice. The essential contribution thus lies in the identification of these four areas and how their development may be threatened if it is based on assumptions that do not reflect what people are actually doing.

#### The practice turn

Academics in the field of social science and general management who are worried about the loss of relevance have responded to the abovementioned issue by suggesting that there is a need to focus on the everyday practice of the ones doing the work ([28] Ghoshal, 2005). The argument is thus within the same family of arguments as the practice-based approach. Essentially, the "practice turn" in social science ([62] Schatzki et al., 2001) states that the micro-activities of organising must be examined in order to understand the practice. That is, to build theories on which to claim to educate, for example, MBA students for practice, real activities rather than abstract tools must be in focus. This lays the focus on the activities that practitioners execute and the practices they draw upon (contractual norms, industry specific requirements, values) when transforming actions into results. According to [37] Johnson et al. (2003, p. 3), a practice perspective includes "an emphasis on the detailed processes and practices which constitute the day-to-day activities of organisational life and which relate to [organising] outcomes." Accordingly, the practice turn has been applied to various fields, including strategy ([72] Whittington, 2006; [36] Johnson et al., 2007), communities of practice ([13] Brown and Duguid, 2001; [41] Lave and Wenger, 1991; [27] Gherardi, 2006), technology ([48], [49] Orlikowski, 2000, 2002), management education ([40] Korpiaho et al., 2007) and, along the lines raised by [38] Johnson and Kaplan (1987), management accounting ([1] Ahrens and Chapman, 2007). The practice turn has also been addressed recently from the perspective of PM, in which PM has been critiqued for not providing sufficient detailed understandings ([17] Cicmil and Hodgson, 2006; [8] Blomquist et al., 2010; [32] Hällgren and Söderholm, 2011).

Studies that utilise a practice-based approach differ widely in terms of their methodological approaches and the bases of their arguments. Traditional practice-based studies seldom focus on education, instead addressing, for example, the practice in meetings ([34] Jarzabkowski and Seidl, 2008), the practice of managing unexpected deviations ([67] Söderholm, 2008), the practice of a project manager ([46] Nilsson, 2008), the practice of coordination through roles ([5] Bechky, 2006), knowing in action ([27] Gherardi, 2006), the practice in strategic change projects ([71] Whittington et al. , 2006) or the

importance of studying time and space in projects concurrently ([42] Maaninen-Olsson and Müllern, 2009). Practice approach studies typically focus on organisations and activities on a micro-level. Although the meso- and macro-levels of companies and society are an essential part of the core argument for practice-based studies, they have been largely forgotten in terms of research ([35] Jarzabkowski and Spee, 2009). Regardless of the level, the practice is shaped by praxis (the situated doings, such as planning an organisation change project) and practices (norms, values, rules and traditions, for example, utilising internal IT infrastructure for documentation of the project plan), which the practitioners (the person doing something, such as the project manager) draw upon when acting ([72] Whittington, 2006). These three concepts are understood from the "site" in which they exist. A "site" does not refer simply to the physical space in which a practice occurs. According to [61] Schatzki (2005, pp. 467-8), the "site" is a larger phenomenon, the physical and social space in which the practice shapes and is shaped by the social setting in which it is a part. The "site" concept thus shares the general meaning of the concept of "Ba" ([47] Nonaka and Konno, 1998). The latter however focus on knowledge creation rather than practice per se. The "site" cannot be overlooked when attempting to understand the social transformation that happens to a practice and explain how it is shaped by the surrounding situation. This is a common argument that proponents of practice-based studies use regarding how this kind of approach differs from other approaches, such as process-based studies that do not go into great depth regarding the social setting and the meaning of the practice and the assumptions thereof ([8] Blomquist et al., 2010; [72] Whittington, 2006).

The practice-based study by [40] Korpiaho et al. (2007) took a fresh perspective on practice, exploring how management education is described in leading management journals (The Academy of Management Learning & Education , The Journal of Management, Education , and Management Learning ). They found that management education can hardly be described as using one single model of education given that there are several approaches to how the education is executed. Thus, the models differ significantly. Instead, they suggested that management education could be seen as what educators term "good education". The benefit of this practice-influenced approach linguistically is that it emphasises details and how what is written about management education may not actually be as simple as the discussion describes. However, the way the term is used does not address the inherent shortcomings of standardisation with regard to related areas such as research, certification or practice; nor does it address education, per se, rather it is just a description thereof.

#### Standardisation of knowledge

Management education is a wide-ranging activity that includes a broad range of management functions, such as strategy, operations, leadership or PM. This paper uses the case of PM to illustrate and challenge management education, regardless of the focus. PM, as a set of tools and models that facilitates the design, planning, and implementation of projects, is widely used by groups such as large corporations, construction companies, consultants and public organisations. In fact, PM has become a management ideology with its own procedures and principles and is heavily promoted by professional organisations, consultants and educational institutions. It has evolved from being an engineering planning tool to being used more broadly as a management approach in virtually all lines of business. Many organisations have transformed themselves into project-based organisations ([70] Thiry, 2001).

This development is remarkable in many ways. The number of people enrolled as members in the two main professional organisations - the Project Management Institute (PMI) and the International Project Management Association (IPMA) - has grown dramatically during their five decades of existence and attendance at PM conferences and conventions has shown the same pattern. PM is also establishing itself as a professional field through an increased number of educational and certification programmes for project management professionals (PMPs). [31] Hall (1963, pp. 92-3) noted that professional associations, such as PMI and IPMA, exclude the ungualified and provide a work setting for the professional (the project manager) to use his or her judgement. IPMA and PMI cannot forbid people to work as project managers but in some environments it is a demand from the client that the project manager should be certified. That is, in contrast to areas such as medicine where the state works as a regulative agent and directly decides on who is or is not allowed to practice, in PM, the IPMA and PMI, through the development and certification of standards, indirectly exert control over people working with projects by functioning as normative agents. Normative agents specify what "individuals, groups, organisations, and states 'should' do" ([63] Scott, 2008, p. 225) but they do not decide who can do it. PM is thus establishing itself as a professional field through an increased number of educational programmes and certifications for PMPs. PM can however not formally be defined as a professional field since there is no formal educational and entry requirements, autonomy over the terms and conditions of practice, a code of ethics, a commitment to service ideals and monopoly over a discrete body of knowledge and interrelated skills - and there most likely never will be in any area outside of traditional occupations ([44] Morris et al., 2006, p. 711). PM is thus best described as a semi-professional profession[1]. See further discussion on PM as a profession/semi-profession in [73] Zwerman and Thomas (2005).

As with other management trends, the diffusion of PM is an institutional process in which a number of various interests come together to promote a particular model, approach or management idea ([59] Sahlin-Andersson and Engwall, 2002). For example, university institutions tend to look at each other to find role models for new educational approaches, while consultants make management models generic and are thus able to sell them across industries. This process has been discussed extensively over the last decade with regard to various management fields (see, for example, [60] Scarbrough (2002) for an analysis of how intermediary groups, such as consultants, are important for the diffusion of knowledge management; [25] Fincham and Roslender (2003) for a discussion of how capital accounting can be understood as a fad or fashion; and [9] Blomquist and Söderholm (2002) for an analysis of carriers in the PM field). More recently, [33] Hodgson and Cicmil (2006) offered a critical review of the standardised PM knowledge as it appears in the [54] PMI's (2004) Project Management Body of Knowledge (PMBoK).

As in other management education, such a diffusion and pattern of imitation in PM is driven by a leader who functions as a successful role model. In turn, the pattern drives professional exchanges and quality assessments in society at large and academia in particular. Imitation is facilitated by professional exchanges in various ways, including the rise and power of professional organisations and collaboration between organisations. In contrast to professional exchanges, which are commonly conducted voluntarily on mutually beneficial grounds, quality assessments have a competitive basis rather than a mutually beneficial focus. The rationale is that objectively measured quality provides a competitive advantage over any competitor. For example, a university that provides courses accredited by the PMI is seen as having an advantage over another university that offers non-accredited courses. In addition to accreditation of schools and courses, evaluations and rankings contribute to patterns of imitations. Thus, the pattern of imitation is not restricted to single organisations; rather, it involves larger forces that co-exist and develop the "site" in which a phenomenon such as PM education exists ([21] Engwall, 2007, pp. 21-4).

These patterns of imitations can be described in terms of two general processes through which management knowledge is created and diffused: commodification and transnational processes ([66] Suddaby and Greenwood, 2001; [19] Djelic and Sahlin-Andersson, 2006). Commodification is the process by which knowledge is codified, and the colonisation thereof involves the migration of a knowledge domain into new fields, organisations and applications. Consequently, within the institutional diffusion processes, there is an inherent need to translate general issues into specific ones and also specific ideas into general and generic ones.

Imitation and translation both come to play in the process that, more often than not, is transnational in nature ([19] Djelic and Sahlin-Andersson, 2006). Transnational processes, which transcend national and cultural borders, have a tendency to further promote standardisation ([14] Brunsson and Jacobsson, 2000). Ideas, or in this case, a management model, must be applicable not only in different businesses but also in different cultures ([18] Czarniawska and Sevón, 2005) and therefore highlight those elements that are common to most situations while neglecting what is specific and unique about each situation.

There are some problems with standardisation in transnational settings. If taken too far, standardisation can result in the creation of knowledge domains (standards) that claim to not only to be a standard but also a valid starting point for education and research in the area. The standard can therefore be mistaken for depictions of the practice, which is seldom the case ([15] Brunsson, 2006). Strong standardisation that is paralleled by academic activity in terms of research based on the standard could pave the way for a "relevance lost" situation, as described by [38] Johnson and Kaplan (1987) in the management accounting field. As mentioned above, the relevance problem is also valid for management in general ([7] Bennis and O'Toole, 2005; [28] Ghoshal, 2005; [43] Mintzberg, 2005; [21] Engwall, 2007; [40] Korpiaho et al., 2007). Essentially, the problem occurs when simplified, rationalistic and deterministic models (or ontologies) are mistakenly considered to be accurate views of reality. In management in general and PM in particular, the voices of observers such as Ghoshal are likely to increase in volume. It could be argued, therefore, that PM research is not only an immature field of research, it is also unsubstantial in terms of understanding what is going on in projects ([5] Bechky, 2006; [17] Cicmil and Hodgson, 2006; [71] Whittington et al., 2006; [82] Balogun, 2007; [8] Blomquist et al., 2010). Greater involvement with analytical and rationalist theoretical models of projects will only provide more make-believe statements on PM issues or practice. This is the argument presented by [2] Alderman et al. (2004), who went on to claim that PM is based on outdated twentieth century principles. Consequently, PM is perhaps under even greater threat than common management theory given that the rational deterministic legacy is even more outspoken than it is in other management fields ([68] Söderlund, 2004; [33] Hodgson and Cicmil, 2006).

This paper addresses standardisation in PM and how the PM field is conceptualised and organised in terms of standards. It focuses its inquiry on the relation between the standards and their various applications, arriving at four instances where there is an obvious risk of mistaking standards as an appropriate role model for work and where there is a risk of losing relevance ([38] Johnson and Kaplan, 1987). These instances are education, research, accreditation/standardisation and practice.

### Rule making and standardisation - creating a less likely model of reality

The general story of the rise of PM as a management methodology is well known. The use of structured PM (planning and scheduling) approaches was heavily supported within major US defence projects such as the Manhattan Project and the development of Polaris missile system, as well as other mega projects during the Cold War era, such as the US space programme. It was further developed and spread to different industries, such as in chemical industries and across countries through consultants ([9] Blomquist and Söderholm, 2002).

Standards for managing projects developed alongside the diffusion of the practice itself. The main diffused elements are models, codified tools and general approaches to PM that are to be utilised later by those wanting to run projects. In this way, projects are regulated, in terms of their definition and core areas of activities, through a process that spans countries, organisations and individuals. It is a transnational regulatory process ([19] Djelic and Sahlin-Andersson, 2006) and is driven primarily by the professional organisations working in the field. The two largest such organisations, the European-based IPMA and the North American-based PMI, have developed standards for PM, which should perhaps be referred to as standardised collections of knowledge areas that a project manager must master in order to be considered qualified. Using the PMBoK as an example, this "body of knowledge" is substantiated by practically-proven tools and methods that are "generally recognised as good practice" and are "applicable to most projects most of the time" and their particular value and use are agreed upon in iterative negotiation processes among the more than 700 contributors from a wide ranges of industries, including academia and representatives of professional institutions ([56] PMI, 2008, p. 4).

Creating standards, gaining acceptance for them and then using them for certification and qualification of individuals are all part of an ongoing struggle for the professional recognition of PM as a stable profession, as has been the case for auditors, lawyers and doctors. However, although there is no firm legal basis for creating a code of behaviour for PM, the new transnational arena offers other possibilities for soft rule making, standard acceptance and diffusion. Consequently, PMBoK ([56] PMI, 2008) has been accepted as a standard by the American National Standards Institute and is used globally as a basis for the PMI certification of so-called PMPs. Standards create a community to which professionals can belong if they meet certain entry requirements. Consequently, the standard functions as a means of achieving recognition, which may in itself be a good reason for creating it. Regardless, this does not by default make the standard a better depiction of the practice.

Although individuals, organisations and corporations are, in most cases, not legally obligated to follow PMBoK, they may be willing to learn it, be tested, proven worthy and apply it in order to achieve acceptance by the professional organisation and to ensure that best practices are used at their local site.

Standards can have an immense impact; initially because various parties actively seek to adopt the standard, and later on once organisations require the standard, for example, as a minimum requirement for bidding or hiring. Although PMBoK, by PMI, and the corresponding IPMA standard, the IPMA Competence Baseline (ICB), may compete with each other, they do contribute to the same end - a diffused belief that there is a standard for PM that can be learnt, applied, experienced and checked. Given that the PMBoK is highly influential in terms of practice, research and education and as a standard for certifying most professionals in the world, it is used below as example of a standardised body of knowledge - a best practice.

A management standard has two sides. First, it should reflect what is commonly considered "good" practice in the area in order to guide behaviour. It must be built on experiences that have been gained and on procedures, routines, advice and actions that have proven to be useful or appropriate. Management standards cannot of course, reflect everything, and they cannot carry all the ambiguities of practice that is inherently situated. Consequently, the standard is a simplification in which most situated experiences must be removed, leaving only those generic issues that seem to be most applicable across various situations ([15] Brunsson, 2006). There is a major difference between standards related to social processes and those related to science or medicine, where the standard itself defines precise practices and where that practice is built up by non-social processes. For this reason, PMBoK says that its content is "[...] applicable to most projects most of the time, and there is a widespread consensus about their value and usefulness" and, furthermore, that "[...] there is a general agreement that the correct application of these skills, tools, and techniques can enhance the chances of success over a wide range of different projects" ([56] PMI, 2008, p. 4). This process is largely parallel to developing ISO standards that rely upon negotiations since it is based on voluntary multi-industry-wide consensus ([11] Bredillet, 2003, p. 465). See for example [20] Duncan (1995, p. 91) who explains the update procedure and content for the 1994 version of PMBoK where the term planning is avoided since it connotes different activities in different industries. The standard could thus be viewed as a socially accepted way of handling projects. Even though there is a disclaimer in the way PMBoK describes the scope of the standard, it makes a general claim that the standard is appropriate for most projects, most of the time[2]. Achieving this, however, inevitably means reducing the specificity of the standards. For example, factors that would only apply to certain projects or would only apply to certain situations cannot be included. At the end of the day, the standard will be both generic and abstract: it will not represent any situation or project. It is a creation, a made-up world that fits "most" in theory but builds on none in practice.

Second, a standard should guide practice in the area. It should be a reference on which practice is built, a guide for project managers all over the world. PMBoK and similar standards are compilations of recommendations that, if applied successfully, claim to enhance success. The logic is simple and seemingly convincing: a standard built on best practice should be a role model for all other instances as well. Best practice is considered to be the best because it has been proven to be successful.

Nevertheless, complications can arise. [33] Hodgson and Cicmil (2006) found two major dangers. First, as a negotiated black-boxed standard, PMBoK is detached from moral concerns. It appears to be objective and straightforward but that is only because no moral or ethical concerns have been included

in the standard[3]. Second, the standard lacks perspective and reflections on the situatedness of the activities and it is free of ambiguity and considerations. Both these deficiencies make the standard inappropriate for practice given that two of the most basic features of practice are ambiguity and recurrent moral issues. Moreover, the development of the standards is a part of a political process where stakeholders with different interests compete for attention (see contributors to PMBoK, [56] PMI, 2008). The standards are thus not the objective and necessarily socially accepted way of doing projects that they set out to be.

In short, one could claim that standards are equally as poor a reproduction of the practice as they are a poor prototype for practice. Below, this paper concentrates on four instances in which PMBoK (and other similar standards) could be mistakenly seen to be closely related to what is done on a repetitive basis, and where some of the consequences that could follow are investigated. The focus is on four areas:

standards as a basis for educational programmes;

standards as a basis for research efforts;

standards as a basis for certification and professional accreditation; and

standards as a basis for practice.

## (1) Education

[12] Bredin and Söderlund (2003) conducted an overview of PM courses offered by universities and university colleges in Sweden. They found more than 100 courses dedicated to projects offered by nearly 30 different higher education institutions. The courses were sub-divided into three groups:

PM as a label for modern organisation theory - courses in this group do not focus on projects - rather they claim to give an insight into modern organizations.

PM as a management- and project-based learning perspective - here, project modules are used to resolve integration problems between management and the organization.

PM as a separate knowledge area - this approach separates projects from product development and organisation theory and focuses more on the history of projects and projects as temporary organisations.

None of the courses in these three groups addresses the complexity of projects. Instead, they focus on the tools and methods of the trade, intending to offer a so-called "best practice education". Although the grouping is probably slightly different in an international context, the focus on tools and methods is likely to be the same.

Table I [Figure omitted. See Article Image.] presents a summary of selected curricula from Masters' programmes on PM in 2011. The descriptions are excerpts from the formal and accepted Master programme syllabi as published for public scrutiny. The summary and subsequent analysis are limited to

the written text of the syllabi and as a result, the teaching, the choice of cases, etc. may produce different emphases in the practical delivery of courses. The syllabus is however supposed to reflect the content of the course. Therefore, despite possible discrepancies between description and delivery, the syllabus supposedly at least partly describes the content of a particular course. The intention here is to identify a pattern based on the syllabi, in order to enable reflection on them. The delivery of the courses, insofar as it is an independent matter, is not examined.

The courses and programmes summarised in the table are, of course, neither exhaustive nor statistically significant. However, as [12] Bredin and Söderlund's (2003) study and the courses in Table I [Figure omitted. See Article Image.] both showed, idealised tools and methods are commonly accepted as PM and taught in PM courses. This raises the question of the risk of losing relevance in PM education.

As [16] Chia and Holt (2008) put it, students are provided with abstract causal explanations of the activity in focus, which is PM. They refer to this as "Knowledge-by-representation": the idea is that the theories are believed to be accurate and comprehensive descriptions of what are going on in practice. It is taught through case studies, conceptual models and other general representations found and displayed by, for example, statistical means, under the assumption that there is a certain stability that allows for the representation. This type of knowledge is closely related to what [28] Ghoshal (2005) claims is a rational scientific mode of explanation that in the long run, threatens to turn good practice into bad. The other practice-based type of knowledge is "Knowledge-by-exemplification". This includes situational coping with tricky circumstances, regardless of whether they occur in a project or a management position in any organisation. This type of knowledge is more closely related to [61] Schatzki's (2005) concept of "site", that is, the practical coping with everyday actions. This type of knowledge is transmitted primarily through disposition and demeanour rather than by formal models and standards.

The courses are typically described as providing an "overview" or an "understanding of principles", etc. through tools and methods. However, they usually fail to explain how in the context of the course, the sense-making process of a complex reality is visualised and facilitated, something suggested by [58] Reich and Wee (2006) that would improve the application of PMBoK. There are case studies, of course, and the "creation of PM plans", for example, but one cannot assume that these reflect what is actually going on in projects. They do not explain what happens when there is not enough time to make a plan or when the plan suddenly becomes obsolete or, for that matter, when the future proves more difficult to predict than initially thought. Table I [Figure omitted. See Article Image.] reduces the everyday complexities to simplicities in the shape of tools, which, according to [16] Chia and Holt (2008), would represent Knowledge-by-representation. Even though many scholars have a solid understanding on the limitation of PMBoK approaches, they tend to design courses based on the tools and techniques of PM. Other schools offer courses in PM accredited by GAC (The Project Management Institute Global Accreditation Center for Project Management Education Programmes) and, indirectly, PMI. "[GAC] serves two fundamental purposes - to ensure the quality of academic degree programmes in PM and to assist faculty and universities in the improvement of degree programmes" ([57] PMI, 2011). This accreditation process has strict demands and expectations on the institution that revolve around the areas within the PMBoK ([57] PMI, 2011).

Students of PM are offered a standardised package of what are considered the best PM tools and what is generally accepted and considered to be "good education" ([40] Korpiaho et al., 2007). As noted above, these tools do not necessarily provide a relevant picture of PM, meaning that what is "good" may not actually be so good.

# (2) Research

Research on PM is carried out at engineering schools, business schools and a wide variety of university departments (informatics, pedagogy, political science, psychology, urban planning, etc.). Research is presented at academic conferences and at professional conferences such as IPMA and PMI world congresses and conventions. Moreover, two major publications - International Journal of Project Management (IJPM ) and Project Management Journal (PMJ ) - focus on PM and have links to IPMA and PMI. Some overviews of PM research have been presented lately, such as [68], [69] Söderlund's (2004, 2010) articles classifying different research contributions into a number of streams or schools and [3] Bakker's (2010) review of research on temporary organisational forms. Apart from research, the field is crowded with American-style textbooks that offer in-depth accounts of PM. In order to address the criticism of being too narrow and tool-oriented, many more recent texts have added chapters on cultural issues, teams and project programmes or portfolios.

Rather than providing a comprehensive overview of published research, which the above-mentioned literature reviews do excellently, this paper will highlight a few issues that pertain to the paper's purpose. First, although research has come to acknowledge the social side of project organising there is still a dominance of a more traditionally centered stream of research. The late 1960s and early 1970s were devoted almost entirely to tools, while later conferences and publications show a greater variety and a more comprehensive approach to PM ([9] Blomquist and Söderholm, 2002). That said, any school or perspective on PM ([68], [69] Söderlund, 2004, 2010; [3] Bakker, 2010) runs the risk of losing relevance, regardless of the end to which it contributes.

One critique of research on PM claims that it is too instrumental; that it uses, for example, the PMBoK as a theory and a starting point for inquiries ([17] Cicmil and Hodgson, 2006). In other words, research is being used to assess areas such as risk management, project planning or project leadership based on the notions and guidelines in PMBoK and other similar standards or models. Considering 700 contributors and generally accepted best practice ([56] PMI, 2008), the analysis describes where the relevance is lost at the first stage when the particularities are disregarded in order to become general.

This paper does not aim to totally reject this avenue of research - an understanding of the relation between best practice models and projects is helpful - but a problem arises when best practice models are seen to depict the most wanted reality and are used to evaluate projects through surveys or case studies. Such methods are bound to conclude that project practice does not measure up to PMBoK standards. In the next step, such an incompatibility between model and practice may be used to make recommendations about how to change the reality so that it is more like PMBoK. If this final step is taken, the relevance of research will finally be lost. It is important to emphasise that there has been an increasing presence of contemporary social science perspectives in the main journals in the field, PMJ and IJPM, over the last decade. Examples of special issues include the IJPM 2006 special issue on "Rethinking Project Management" (Vol. 24 No. 8) and the PMJ special issue following the European Academy of Management Conference 2005 (Vol. 36 No. 3). Mainstream management journals have also published PM research. For example, there have been special issues in Organization Studies in 2004 (Vol. 25 No. 9) and in Scandinavian Journal of Management 1995 (Vol. 11 No. 4). This transformation is interesting and welcome in the sense that it may indicate a shift from the traditional less situated approach to a more open, socially sensitive genre of research. Nonetheless, the transformation remains slow and far from generally accepted.

## (3) Certification

Certification and professional accreditation are used as ways to promote and legitimate a certain area. In professions such as medicine and law, certification has long been mandatory. Certification is performed by auditing bodies or professional organisations with the authority to confirm that a person meets ethical and moral standards and has the requisite level of proficiency to carry out a job in the field. Having met the requirements, the person is considered to have the skills and knowledge associated with sound practices ([84] Blomquist and Thomas, 2005). Certification has become not only a way to standardise knowledge but also to gain recognition for organisations and individuals.

No one specific organisation defines the rules of the PM profession and is responsible for certification in that field. Consequently, there are no formal rules that would prevent a person from being a project manager, even if they lack the appropriate certificate, although some government authorities or major companies may require that sub-contractors only assign their projects to managers with PMI or IPMA certification. Certification may also be used as an instrument to create a career path for project managers in larger organisations. Nevertheless, there is still a long way to go before professional recognition for project managers reaches the level of auditors, lawyers or doctors.

While the two best-known certifying bodies in PM are PMI and IPMA, there are other more specific ones, such as Prince2 and internal corporate certifications. PMI and the procedure it uses to entitle a practitioner to become a PMP could be used as an example of a certification process, although it does have certain prerequisites. The person must have completed 35 h of PM education, along with 4,500 h of work experience (for individuals with a bachelor's degree or higher) or 7,500 h for persons without a bachelor's degree. The PMP exam is structured around a set of 200 questions that follow the PMBoK. The weighting given to each area in the test may vary but in general it will cover initiation, planning, execution, monitoring and control, closing and professional and social responsibility. The following quote is an example of what can be expected from the PMBoK and PMP certification, from one of the numerous PMP prep courses and books:

If you practice project management using the methodology outlined in this book and the Project Management Institute's "Guide to Project Management Body of Knowledge", you will become a good project manager . Learning project management is more than studying a book or even a group of books. Project management must also be learned in the field with experience and exposure to responsibility on projects. The Project Management Professional (PMP) certification is designed to certify project managers who meet the criteria for both knowledge and experience ([45] Newell, 2005, p. xv (author's emphasis)).

A person with an interest in PM certification reading the text may believe that he or she will automatically become a "good project manager" if they have experience, read the PMBoK and take the PMP exam. If this were true, then presumably every project manager would want to undertake the PMP exam.

A study of project managers ([84] Blomquist and Thomas, 2005) explored the motivation of individuals who make the personal investment and commitment to engage themselves voluntarily in PM certification programmes. Surveys were sent to 435 project managers, 241 of whom held a PM certification. The study provided no indications of what type of certification a person had taken. Participants were asked what they hoped to achieve through the certification. A classical view of a profession ([31] Hall, 1963) would argue that the reason would be to become a member of a professional community. Members of such a community benefit from possessing the title by gaining access to certain jobs with higher status. The project managers in the study who had PM certification provided the following five top motivations to:

challenge myself to meet professional standards (85 percent);

provide evidence of a level of proficiency in PM (85 percent);

increase my credibility as a project manager (85 percent);

increase and broaden my knowledge of PM (81 percent); and

become more marketable for other jobs (81 percent).

The following factors had little or no influence on their decision to:

- satisfy my boss (67 percent);
- keep my job (64 percent);
- meet new people (57 percent);
- have line managers listen to my recommendations (52 percent);
- earn a promotion (36 percent); and
- earn more money (31 percent).

The results indicate that the motivation for certification is intrinsic, while the benefits are not primarily instrumental in terms of improved ability to run projects. Certification is considered an achievement, a passed test that enhances self-esteem and legitimacy. A different set of factors emerged when those who choose not to certify were surveyed. The top five reasons for not certifying were:

certification is not considered a necessity in my organisation (64 percent);

not enough time to study for certification (61 percent);

there is no financial reward for certification (60 percent);

certification is not considered a necessity in my industry (56 percent); and

certification has a high financial cost (47 percent).

To conclude, certification is mostly undertaken for reasons of legitimacy, while reasons for noncertification are instrumental - that is, they are primarily centred around obstacles. In either case, it is clear that certification per se is not considered necessary to be a successful project manager. Project managers may have obtained the skills they need through practice or training or decided that certification programmes are based on idealised, non-realistic comprehension of a project. Certification is therefore more of a toolbox than something that depicts practice. The loss of relevance appears when certification programmes are marketed as being essential in order to deal with projects and become a project manager. Relevance is finally lost when more organisations require their partners to assign certified project managers to their projects; when more organisations use certification as a basis for promotion; and when formal requirements for certification are included in a transnational regulation process. Certification therefore functions as a form of quality assurance and as a competitive advantage over other people or organisations. By using certification as a form of gaining a competitive edge, the education that the standard (or certification) represents is mimetic. These mimetic forces turn the leading actors into role models for less successful counterparts, which in the long run implies that organisations such as PMI will increase in their influence on education ([21] Engwall, 2007).

#### (4) Practice

The data reported in this comes from a larger study of deviations in projects ([85] Hällgren, 2009). The case that this paper presents relates to a complex deviation that occurred in one of the projects under study. The case is interesting since it should, according to the standards, have been dealt with in terms of risk management and firm procedures but was not. Therefore, one could argue the selection of example is biased but at the same time, the overall study showed more than a 100 similar situations in which the standard had to be dropped at the time the deviation was detected. Overall, the examination is in accordance with what has become known as a practice-based study focusing on practitioners, praxis and practices ([72] Whittington, 2006).

The company was an internationally-oriented systems delivery organisation that delivers land-based diesel/crude oil and gas power plants. At any given time, they have around 120 simultaneous parallel projects, with an average project taking 12 months to execute. The company has been deliberately utilising PM techniques for about 20 years, which means that they are used to managing projects and to managing several projects simultaneously. Projects are executed using a concurrent design that makes them vulnerable to deviations, as one deviation can influence several other activities. There are approximately 30 project teams located at the corporate office, consisting of one project manager and

two senior engineers. When managing a turnkey project, a senior civil engineer joins the team. In addition, a site team is associated with the project team when applicable, mainly for turnkey projects. The site team manages the building process, while the project team is responsible for planning, reporting, customer contacts, and so on. The case presented here focuses on the project team at the corporate office.

This paper concentrates on the activities related to damaged equipment during a 12-month diesel power plant project. The damaged equipment, which consisted of a number of charge air silencers and medium-voltage switchgear cubicles, was one of the major deviations in the project. The deviation was discovered at a late stage, partly because of a delay in the logistics, and it threatened to delay the entire project by three months, which would have severely affected the budget. The first thing the project team tried to determine was the extent of the damage through phone calls, photos, e-mails and by sending a junior engineer from a parallel project to the site where the equipment was located. At the same time, the project manager tried to contact the logistics company and the insurance company. One particular phone call with the insurance company included the following statement from the project manager:

"We have to order now! Otherwise we will pay ourselves silly in fines!" After listening for a while, the project manager said, "I understand that you can't give me an absolute answer but I'll tell you once again, we have to order now!"

Upon finishing the call, the project manager told the mechanical engineer to order the damaged material. He then sent an e-mail that includes the following:

I understand that the two MV switchgear cubicles are so badly damaged that we need to supply new ones. Please act accordingly so as to not lose more time.

The process continued for ten more weeks. The site team continued to execute the project and used dummy components to replace the original equipment. In the later stages of the project, the equipment deviation became the subject of numerous discussions and e-mails. The damage to the equipment had resulted from a mishap during pre-loading, and the logistics company was aware of it. Photos had been taken but the information was never communicated to the project team. In the end, the discussion revolved around reimbursement and the extra costs incurred. The contract did not resolve the conflict. There were corporate procedures for risk management for situations of this nature, although project team members and the project manager were unable to implement them. They tried to do so on certain occasions but due to a number of unforeseen and situational factors, they had to let go of the routines quickly. The following reflections could be made about the standards in use:

The deviation is common to other phases of the same project or other projects in general. PM standards cannot easily be applied, even though the PM routines are in place. It is quite safe to claim that it is not possible for any idealised tool or method to contain the details needed to deal with the wide variety of deviations that occur in projects, especially if the tool claims to cover not only power plant projects but also ordinary construction, aerospace, information systems, etc. According to PMBoK, the deviation presented above is what some would describe as a failure in risk management. A risk is defined as "an

uncertain event or condition that, if it occurs, has an effect on at least one project objective" ([56] PMI, 2008, p. 275). Hence, the goal of risk management is "to increase the probability and impact of positive events, and decrease the probability and impact of negative events in the project" ([56] PMI, 2008, p. 273). Being a risk, the deviation should first have been:

- planned;

- identified;
- qualitatively analysed;
- quantitatively analysed;
- responded to; and
- monitored and controlled ([56] PMI, 2008, p. 273).

Although the situation initially appeared to be a failure in risk management, there are other explanations as well. The risk procedure, as described above, is not flexible enough and does not take into consideration, for example, the fact that local adaptations to the deterministic agenda of risk management might be necessary in order to make everyday life work ([64] Snook, 2002):

There are time or resource limitations that contributed to loose couplings between activities, actors and resources, local practice and local agendas which forced the project manager to adapt to the situation by numerous phone calls, e-mails and meetings.

Local adaptations (using dummy pieces) can be explained by institutional factors such as honour. The local adaptation of using dummy pieces is arguably a way to find a solution to the problem and thereby take the honour of solving the task that in the particular setting is acknowledged as positive and necessary. By adapting to the situation, loose couplings between activities are created that prevent organisational routines such as risk management from being efficiently implemented.

Maintaining control through elaborate planning and method implementation anticipates the future, which is not only a difficult task but also a very uncertain one. Instead control in this instance could be described as the ability to navigate and handle this and similar deviations simultaneously and apply appropriate tools where applicable. For example, the sub-contractor had taken photos of the damage that occurred upon loading the equipment before the logistics phase but forgot to forward it to the project team. Moreover, the purpose of the plan was to define the time-line and to convince different parties to work in a particular pace and order. When managing the deviation above the importance of the plan is evidenced in the urgent order of new equipment ("please act accordingly not to lose more time") and in the phone call with the lawyers ("we have to order now!"). In both instances the action was justified with reference to the plan.

The risk management procedure contributes to a rationalist, deterministic view of the project, creating an unrealistic sense of controllability ([72] Whittington, 2006). This is a fact since the risk management

procedure is written down in the project plan and reports are written according to schedule; however, the procedures as such are not implemented in the everyday work. Instead, the procedures contribute to maintaining the hope of "perfect decisions" and efficiency in the execution, a view in which the project appears rational and decisions seem to be based on good judgement and facts ([15] Brunsson, 2006). Therefore, a problem occurs when the standards are mistaken for the practice, which is far more complex than what is evident on the surface of a situation. The difference between theory-in-use and espoused theories ([81] Argyris and Schön, 1996) is evidenced in several ethnographic studies of work in [24] Engwall and Westling (2004), [65] Simon (2006) and [51] Orr and Scott (2008) and outside of project work ([4] Barley, 1996; [50] Orr, 1996; [49] Orlikowski, 2002). The common denominator between the studies is the focus upon the shifting in the practice when managing a project, or working in other organisations. The findings in the case above are thus neither surprising nor restricted to one particular case.

Assuming that the case reveals a part of reality, applying standards to issues that are far more complex than the tool only offers make-believe views of what is rational and correct and does not bring to the surface the ongoing processes of PM ([8] Blomquist et al. , 2010). Relevance for practice is therefore lost when the tools are mistakenly treated as something more than just tools. Research that is uncritical of the potential scope and use of standards may conclude that a company should re-design its risk management processes and increase its capacity to execute risk management procedures because their practice is not aligned with the standard. However, research based on a comparison between local practice and the standard shows that it can be difficult to make such recommendations. Calling for more rationality according to the PM standard may jeopardise a well-functioning practice ([28] Ghoshal, 2005).

#### Back to reality - or relevance lost

This article challenges people involved with management education by discussing the potential consequences of taking a route based on standards that covers only parts of the practice. To this end, four instances have been developed and discussed. These instances reflect the challenges and problems that exist in dealing with standardisation in management education, as has been observed previously ([29], [30] Grey, 2002, 2004; [52], [53] Pfeffer and Fong, 2002, 2004; [26] Friga et al., 2003; [7] Bennis and O'Toole, 2005; [28] Ghoshal, 2005; [43] Mintzberg, 2005; [21] Engwall, 2007; [40] Korpiaho et al., 2007; [83] Knights and Scarbrough, 2007; [16] Chia and Holt, 2008; [6] Bennis, 2010). While previous research has discussed management education on a general level, this paper provides an empirical example by utilising a practice approach that emphasises the need to take the "site" into account ([8] Blomquist et al., 2010). The "site" is important since the standardisation of knowledge is often used to guide behaviour through teaching students, providing the basis on which to issue certificates to practitioners, doing research and performing as a practitioner. Disregarding the "site" thus disregards the basis on which the standardisation is supposed to be based on in the first place, as indicated by the excerpt from the construction project above. Therefore, despite the fact that the practice approach is empirically occupied with the detailed activities of organising, the paper contributes to the discussion on practice by providing fuel for the debate about the consequences that standardisation would have on education, research, certification and practice in organisations when the nitty-gritty details of organising are neglected. The discussion in the instances re-emphasises, from four different angles, the initial argument that standards are not necessarily a valid starting point for learning more about the practice or for designing and guiding actions ([7] Bennis and O'Toole, 2005). The result is that relevance is lost in two directions. First, it is lost in the development of the standard itself through transnational processes ([66] Suddaby and Greenwood, 2001; [19] Djelic and Sahlin-Andersson, 2006) and imitation ([21] Engwall, 2007), which diffuses and idealises multiple practice - that is, the enacted and situated norms, values, routines and experiences of the professionals. In short "the way we do it" becomes obscured through the search of a common denominator. Second, it is lost in the application of the idealised standard to areas of education, research, certification and practice, using the standard as a role model against which right and wrong is measured. To summarise the argument, see Table II [Figure omitted. See Article Image.] from which Figure 1 [Figure omitted. See Article Image.] is developed.

Further detailing the figure and the argument two steps are suggested:

In the case of PMBoK, this idealisation occurs through the involvement of more than 700 contributors that in iterative steps negotiate what should be considered appropriate best practice. In detail this means meetings, e-mails, on the table negotiations and under the table negotiations to advocate a specific standpoint or interest which forms industry-wide consensus between stakeholders from industry, academia and institutions such as PMI or IPMA ([11] Bredillet, 2003, p. 465; [20] Duncan, 1995; [56] PMI, 2008). In reality the process of developing the "best practice" is far more complex and obscured than how it is displayed in the final document. Not only is it a negotiated and political products, it is also an idea that is reduced to the least common denominator of an abstract situated practice. The aim of the document is to determine what has been or what would have been the basis for the best projects. Context is omitted deliberately, as are situational factors. In the end, standards are not based on comprehensive or extensive observations. This is what is labelled "Relevance Lost I: idealisation".

Since standards do not reflect situated practice, it is hazardous to use standards as role models upon which to base practice. There are four situations that might lead to problems and in which standards might be mistaken for models of practice: research, certification, education and designing PM practice. Since the model is idealised, the practice can never, and has never, appeared as in the standards. Reality is never free from context dependencies and situational factors that are of major importance for all projects. For instance, the standards are not able to, nor should they, describe the trade-offs that are necessary to get things done and what one according to procedure is entitled to, as in the case with the damaged equipment above. As we showed, the idealisation process requires the standards to be reduced to the level of agreeable terms and thus to be reduced to its least common denominator. When arguing that this idealised standard is "best practice" and implicitly requires a "good" project manager to know about the standard (through education, certification and requirements from for example, a client) the standardising bodies exert normative agency on practitioners and provide a role model for anyone involved in projects to follow ([63] Scott, 2008). When the "best practice" standards are seen and applied as a model for how things should be done, the relevance is finally lost. This we label as "Relevance Lost II: role modelling".

The implication from this simple model is that the manner in which the "best practice" is developed into a standard for the PM profession carries issues that anyone involved in needs to be aware of. The reason is that the standards provide an idealised view of reality that has to be situated in the present to be practiced. When applied "as is", there are problems with a standard, not only in its application but also in terms of the ontological and epistemological assumptions, especially when it consists of several competing interests and obscured views of the world of which a researcher may not be aware ([39] Kadefors, 1995; [22] Engwall, 2003).

As noted earlier, the discussion should not be considered a critique on the existence of standards, which can be widely used. [58] Reich and Wee (2006) among others, showed how the standards can be applied in a way that is beneficial to a project. By focusing on knowledge management concepts, they reached the conclusion that PMBoK is concerned with explicit knowledge. They suggested paying more attention to knowledge requirements and knowledge gaps; adding "why" and "who"; recognising the need for cognitive collaboration within the team; highlighting critical knowledge objects; clarifying the roles of stakeholders and highlighting the lessons learned in order to improve the application of the standard. The concern is that, as well as there being a need to investigate tacit knowledge, there is a need to challenge and expand knowledge of how standards are used, as Reich and Wee noted. This is especially the case given that standards and their impact on organisations and society at large can be expected to increase ([21] Engwall, 2007, p. 28). The point to be highlighted is that, although having standards to regulate behaviour and improve efficiency can make definite contributions, there are also inherent problems with their application. Errors and complications occur when standards are used more extensively than the purposes for which they were created, and when their basis is forgotten. PM started as a planning and scheduling tool and PM standards were limited to those areas. Planning and scheduling has since been built into step-wise models, providing an apparently perfect path to follow. That may be troublesome enough but the problem escalated further when new areas, such as people skills, human resources and ways of dealing with complexity were added to the standards. When the developers of standards were directed to become more comprehensive and more up to date in terms of their practices, they added issues that were less easy to standardise. This trend was exacerbated when the application of the standard was expanded from covering a few industries in a few countries to all industries in all countries, and from large and complex systems development projects to all types of projects.

In a way, the success of PM is what makes standards less and less relevant. Success requires more generic standards, which in turn increasingly deviate from the practice and thus become less and less appropriate for the practice. In an effort to create a standard that is applicable everywhere, only those things that are easiest to codify make it into the standard. In the end, the easiest things to deal with are those that are included, while the most challenging are those that are omitted or dealt with in an abstract way. This is a true example of [15] Brunsson's (2006) dream of the rational organisation. Standardisation and rule making through transnational regulation has resulted in standards being more and more widely applied but at the same time, becoming less relevant. By covering the least important issues, the standard ends up being trivial, unimportant and irrelevant.

A few concluding remarks can be offered. First, standards are not inherently bad but it is beyond this paper to expand on their positive virtues. Nevertheless, considering the diffusion of PMBoK and similar standards across industries, standards are best considered as informed experts' comments on how things can be done within certain areas of activity. The standards can work as checklists for practitioners, educators, consultants or students but can hardly claim to be anything beyond that. With this paper we therefore raise a word of caution to anyone whose work is influenced by the standards in a direct or indirect way. It is not that the standards are wrong: it is simply that they should not be mistaken for a picture of reality. In reality this caution attempts to strike a balance that is hard to achieve. For practitioners, the standards are a good reference for how things could be done. If properly situated, for example, the use of a detailed Gantt chart may not be beneficial when it comes to plan for how a specific deviation should be handled. The Gantt chart may instead provide an argument for why a sub-contractor should work harder or differently to accommodate the requirements posed by the deviation that has occurred. The Gantt chart can thus be used for negotiation and as a tool for legitimation. For educators and certification institutes, there is also a challenge. That challenge is to design relevant curricula, preparing students for the complexities of the practice of doing projects (see discussion in [43] Mintzberg, 2005). Designing test instruments is not easy and the best strategy may be to conduct a knowledge test on checklists instead of claiming to test professional skills and performance capabilities. Moreover, for educators more situated knowledge should be added to the checklist-based knowledge, in terms of for example case studies, work-life training, mentorships but also a thorough discussion on the advantages and disadvantages of the standards. That is, the discussion would not be solely about whether the standards are able to predict the outcome accurately but also about what the consequences of applying tools are, for example in terms of delays in managing deviations. For certification bodies, the knowledge resides in a generalised and diffused understanding of projects. This cannot be avoided. The process of how this knowledge is produced could however be more distinct to show the political processes involved in producing such a document. This would make it easier for users to make up their own minds about the knowledge of the BoKs.

Finally, in terms of research, the argument is quite self-evident. Research needs its own foundation based on theoretical and empirical arguments that are not found in standards. Although standards can be researched they are never a good starting point for designing the ontology on which to base the research.

#### Footnote

1. Hereon when we discuss or use the concept of profession regarding project management it is not in a strict definitional sense but in the more tendentious meaning, that is project management becoming recognized as a somewhat coherent kind of work, in the general meaning of [44] Morris et al. (2006).

2. More technical and industry-specific standards also exist developed by the same organisations, e.g. the Construction BOK ([55] PMI, 2007). The same basic problem however applies, only in a more industry-specific argument.

3. Ethics are partly covered in ethical codes of conduct of both IPMA and PMI. Nevertheless, the standards and the work of developing them do not reflect these considerations. Still, an uncritical implementation of standards runs the risk for example, of putting too many demands on personnel, making it difficult for them to strike a balance between long- and short-term consideration within the organisation.

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## Appendix

Corresponding author

Markus Hällgren can be contacted at: markus.hallgren@usbe.umu.se

## AuthorAffiliation

Markus Hällgren, Umeå School of Business and Economics, Umeå University, Umeå, Sweden

Andreas Nilsson, Umeå School of Business and Economics, Umeå University, Umeå, Sweden

Tomas Blomquist, Umeå School of Business and Economics, Umeå University, Umeå, Sweden

Anders Söderholm, Mid-Sweden University, Sundsvall, Sweden

Illustration

Figure 1: Relevance lost

Table I:

Table II: The loss of relevance

Word count: 12381

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