Embracing the drifting environment

The legacy and impact of a Scandinavian project literature classic

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Abstract

Purpose – The purpose of this paper is to provide an overview and analysis of the legacy of Christensen and Kreiner’s (1991) literally classic Projektledning: att leda och lära i en ofullständig värld (Project Management: to manage and learn in an incomplete world).

Design/methodology/approach – The paper is based on a three-step theoretical analysis deduced from the mentioned classic. The first step provides an overview of the content where the core ideas of the book are derived. This is followed by an analysis of the legacy and impact on theory, empirical approaches, and education. Finally, three main takeaways from the book are discussed.

Findings – In tracking the legacy, the paper analyses, discusses, and illustrates how the Scandinavian approach to projects has evolved. It pinpoints the two core insights of the book; the importance of understanding the impact of the institutional environment on operations, and embracing uncertainty as a natural part of everyday organizational reality. Based on these insights it is shown how the book has expanded the theoretical contributions towards a focus on temporary organisations and everyday practice, how it has helped to make situated empirical research matter, and how it has influenced education to deal with real-life project challenges.

Research limitations/implications – This paper investigates a book available only in the Scandinavian language and thus only available for a Scandinavian research community. As such the review is written from a Scandinavian perspective, with the limitations in terms of objectivity to the book that follow from that.

Practical implications – The main lessons discussed in relation to the heritage from the book are: an increased focus on the details of organizing, situated multi-level case-studies, and situation-sensitive teaching methodologies. The paper argues that an increased understanding of projects should start with a detailed multi-level analysis of temporary organizing to provide a sound foundation on which to base future research and teaching.

Originality/value – The paper provides an understanding of the origins and diffusion of underpinning ideas of the Scandinavian approach to project management.

Keywords Scandinavia, Project management, Project planning, Books, Scandinavian School, Project management classic, Contextualizing projects, Practice institutional impact, Uncertainty management

Paper type Research paper

Outlining a classic

A literature classic could be described as a work that achieves a standard of excellence and/or maintains an enduring value. In these senses, Christensen and Kreiner’s book (Christensen and Kreiner, 1991) Projektledelse i löst kobled systemer: ledelse og læring i en
ufuldkommen verden (Project Management: To Manage and Learn in an Incomplete World) is a true classic. It has been, and still is, frequently read and cited by students, practitioners, and academics, and as such, is of enduring value. The audience is primarily Scandinavian since it is written in Danish (with translation to Swedish) and it is a part of what has been described as the “Scandinavian approach to project management” (Ekstedt et al., 1999; Cicmil and Hodgson, 2006). The Scandinavian approach, although not an integrated research program, has been described as having a major impact on the contemporary development of knowledge about projects and temporary organizations (Söderlund, 2004; Cicmil and Hodgson, 2006). The term “Viking approach to project management” is also sometimes used to label this research tradition (Engwall et al., 2003).

The book is arguably one of the first that attempts to challenge traditional rational project literature and the foundations of project management, highlighting a new stream of research in which uncertainty and ambiguity in both projects and their surroundings influence what may be achieved and how best to achieve it. The purpose of this article is to provide an overview and analysis of the legacy of Christensen and Kreiner’s (1997)[1] book. The article contributes by:

- making a Scandinavian project classic available to an English speaking audience;
- providing an understanding of how the Scandinavian approach to projects has evolved; and
- giving insights into what the book and the Scandinavian approach may offer for a contemporary audience.

Since the book is available only in Scandinavian languages, this article first gives a rather detailed overview and then discusses its theoretical basis. The second part of the article reflects upon the impact of the book on project research and teaching above all in Scandinavia. In the third section we argue that there are three main lessons to be learned from the book that provide directions for future research and teaching.

**Project management: to manage and learn in an incomplete world**

Deceptively short and with a limited number of references, the book may not at first look like a major contribution, comprising as it does, of merely 126 pages including references. However, many are the students (as well as academics and practitioners for that matter) who find themselves reading slowly, pondering the content. The key message of the book is that the world will change and although projects are recognized as vehicles of change, the underlying rationality of their operations makes them less prepared to manage the same.

The message appears surprisingly simple but turns out to be quite complex in its application. It connects to an extensive critique of rationalistic decision-making (March and Simon, 1958; Cyert and March, 1963) where bounded rationality and satisfying behaviour are more appropriate characteristics of organizational decision making than rational optimization. From this perspective, uncertainty is seen as an inevitable component of decision-making. Furthermore, organizations (and projects) are embedded in an institutional context where expectations, aspirations, role models and norms build a base for behaviour.
Christensen and Kreiner take as their starting point the changes in post-industrial society and the turbulence and speed that characterize them. Even if projects by definition are created to manage organisational exceptions, the exceptions have become the norm, making traditional project management practice less equipped to handle the situation. This is further emphasised by the use of projects in contexts other than those in which the discipline was once founded. As the contexts change, so do the challenges for project management and project managers. As an antidote against the common approach to managing projects, Christensen and Kreiner argue that project teams (and project managers) should embrace the uncertainty, not fight it.

Embracing the uncertainty, they argue, is not restricted to a particular phase of the project, typically divided into goal setting, planning, execution and evaluation. Inevitably the uncertainty is prevalent in every stage, and the way of managing the project needs to reflect this. In traditional project models the flexibility is greatest in the beginning of the project and less at the end due to goal, resource and time commitments. The authors therefore oppose the logical structure of the phases.

Embracing the uncertainty, projects should not define the goal rigidly in the goal-setting phase since at this point there is least knowledge about what is to be achieved and what the possible outcome is (Engwall, 2002). Instead they argue that actions, plans and decisions should be seen as inputs to the dynamic, interactive, and (to a large extent) uncontrollable project process. This approach, they argue, serves several purposes. First, it defines a vision rather than a goal, which motivates rather than restricts peoples’ activities. It motivates since the idea that the “sky is the limit” does not rely on experience to define what is possible, as the case would be where the goal is set at the beginning. Second, the result of the project is open until the results are known, which allows for a definition of success based not on previous experience but on what the situation has allowed for, thereby reducing the “ok, but what could have been achieved?” Question regarding success. In the planning phase, the plans should reflect the vision instead of being quasi-realistic interpretations of a future to come. These open-ended plans thereby become more symbols for actions than descriptions of activities. Thus, the plan is transformed into a communicative device instead of a detailed road map. Applying this way of thinking would influence the way the project is executed and thus the task of the project manager. Traditionally the management task would be a matter of controlling the project. In Christensen and Kreiner’s view, the task of the project manager should in the first place include exploring possibilities and navigating between changes that occur and only secondarily be concerned with trying to control the project and stick to the pre-set goal. In the final evaluation phase, focusing should not be on the rational evaluation between the pre-set goal and whether the project has fulfilled the requirements according to the “Iron triangle” of projects; time, cost and scope. Instead the evaluation phase should primarily focus on whether the results are useful and optimal in a grander perspective, and thus be future-oriented and pro-active rather than history-dependent and re-active.

The book’s argument is based on Tracy Kidder’s (1982) “the soul of a new machine”, which offers a detailed account of the developments of the Eagle computer in the 1970s, helping to contextualize and visualize the points made by Christensen and Kreiner. The authors address the empirical research and dress it in a theoretical framework: for example they use the challenges facing the project to make points about those
challenges as tools for management motivation (pp. 87-8). The authors leave the reader with ten pieces of “heretical advice” for project managers. These are:

1. Establish the vision of the project, one which is tangible while still allowing for different solutions.
2. Do not disparage the project team members’ realities by authorizing an agreement of one common reality for the project.
3. Continuously adjust the goal by the situation.
4. Use the project plans strategically in order to get a feeling for the project’s performance.
5. Make unreasonable demands, be assertive but be fair if you have to discipline someone.
6. Be accessible, but not at someone’s disposal.
7. Do not fear “chaos”, because it is a necessity for control and coordination.
8. Share the successes of the project with the members – you will certainly be dependent on each other again!
9. Define the boundaries of the project according to the situation.
10. You have the responsibility of [...] but rarely the power to [...] (Christensen and Kreiner, 1991, pp. 107-14).

The authors do not claim that project managers could or should, follow their advice in full. They argue instead, that their advice should be taken seriously but regarded more as guidance towards an increased realization that the models and tools of contemporary project management communicate an overly rational view of projects – one which does not put enough emphasis on the existing uncertainty and the need for continuous learning in a project context (Christensen and Kreiner, 1991, p. 116). In practice, this means that the project manager needs to balance the tools and methods of project management against the project as a learning process, its situated features and its institutionalized deadlocks, as visualized in the model shown in Figure 1.

**Figure 1.** Influencing forces on practice

*Source:* Adapted from Christensen and Kreiner (1991, p. 116)
The project managers’ practice is shaped by the competing forces illustrated in the figure. There are certain expectations about what they are supposed to do (for example, plan and control the project) and what a project should look like (for example, there should be a goal and an activity plan). These institutional deadlocks are not easily disregarded and therefore form a part of the restricting features of what it takes to manage a project. Meanwhile the project and its activities have to be adapted to the situation at hand since it is a requirement of a fast paced, uncertain and complex reality. Christensen and Kreiner’s suggestion for how to handle such a situation is found in their main message: lead by vision rather than by goals. This refocus of managerial activity allows for continuous adaptation to the changing demands of the drifting environment.

Theoretically there are two key areas that provide the backdrop to Christensen and Kreiner’s reasoning and in a sense they have led to the development of a Scandinavian approach: the impact of the institutional environment on operations (Meyer and Rowan, 1978) and the uncertainty as an organizational reality (Thompson, 1967). These areas are further scrutinized below, before their impact on subsequent work is considered.

The institutional field as a challenge to goal achievement

Christensen and Kreiner’s book is influenced by institutional- and neo-institutional theory reasoning about organizations, crossed with contingency theory. For example, changes in engineering norms in the construction industry are bound to influence daily activities; or changes in the preferences of clients such as computer buyers, will impact the products that are developed. Taking a contingency approach, challenges like these are met by the organization either reducing the required information (for example, organizing by projects); or by its increasing the ability to process the same information (for example, by installing a knowledge management system (Thompson, 1967)). Christensen and Kreiner focus on the former, saying that projects have become a significant mode of organizing as a way of decreasing the information needs for the entire organization and allowing the latter to adapt swiftly, isolated from other on-going activities.

From an institutional perspective, projects may be important for reasons other than the project task. Beyond the immediate contractors or clients, there are other stakeholders that may have an impact. Setting goals is thus not only something that is done based on the project task or required outcome. A modest goal may be appropriate to receive funding while bold goals may be necessary to attract attention for the project itself. Political trends or organizational fads can thus be relevant when setting project goals, outlining project plans, and reviewing on-going projects. Project goals (or vision) need to be formulated to ensure support and avoid alienation of strategic partners. The vision needs to be roomy enough for all vital stakeholders.

Examining the limits of project organizing, the authors, in common with others (Hodgson, 2002) argue that although they are vehicles for change, projects are not the tool for de-bureaucratization that they may seem to be. Rather, projects allow for the implementation of bureaucratic principles in a way that is scarcely present in bureaucratic organizations. Such mechanisms include the ability to set and track goal and goal achievement by quantifiable measures within a set time limit with a predefined amount of resources. This rationality of operations serves well the purpose of getting things done since activities are continuously evaluated.
The rationality does not however provide the ability to adjust to the changes that the institutional environment offers since a predefined goal is a requirement for efficient goal setting, tracking and evaluation of activities. When the environment changes, the bureaucratic mechanisms of the project force the project to become isolated from the surroundings to avoid a change in its operations. If a change is integrated, it is supposedly made by strict change management (Gray and Larson, 2008). This sets the scene for two different types of uncertainty: operational and contextual uncertainty.

**Uncertainty as an organizational reality**

Christensen and Kreiner follow a typical definition of uncertainty – that is, the difference between the available information and the required information to finish a task (Galbraith, 1973; Daft and Lengel, 1986). Similar to Thompson (1967), who they cite, they make a distinction between operational uncertainty and contextual uncertainty. Operational uncertainty on the one hand refers to the technical uncertainty of the project, for example, how to code software and overcome a software bug. Contextual uncertainty, on the other hand, refers to the uncertainty that exists around the project, for example, whether the purpose and use of the software changes, making the results irrelevant. These two types of uncertainty represent a dilemma insofar as high operational uncertainty follows low contextual uncertainty and vice versa. That is, on the one hand, to have a clear idea of the goal of the project (and how to technically reach it), the project is isolated from the environment. Then when the environment changes the goal of the project remains rigid which leads to a less successful project outcome. By contrast, too much ability to adapt to a changing environment sacrifices the ability to set a goal and plan for its execution, making operations inefficient. Projects were then, and arguably still are, preoccupied with the former situation, the rational planning of operations (which speaks to the logic of mankind (Brunsson, 2006)). Uncertainty is thus an inherent characteristic of social life in general as well as of project execution in particular.

As an inherent characteristic, uncertainty consequently has to be taken into account when designing projects in order to ensure project survival. For example, project goals may have to be changed, or at least re-formulated, frequently and for different audiences to accommodate uncertainty and provide strategic support. This is, obviously, an approach different from the textbook version is needed but the authors do not claim that the knowledge and the operations in projects should be turned upside down. Rather they suggest that academics and practitioners should consider striking a different balance between the two types of uncertainty. This would allow greater contextual sensitivity at the expense of operational uncertainty and would arguably produce better results.

The two areas discussed – that is, the importance of the institutional environment on operations and project formation, and uncertainty as a central part of organizational reality – are thus central to Christensen and Kreiner’s reasoning and permeate the development and legacy of the book.

**The legacy of Christensen and Kreiner**

Although Christensen and Kreiner are known primarily to a Nordic audience (since the only translation is from Danish to Swedish) they have been part of an approach that has had an impact on research and education beyond the Nordic countries. They were among the first to introduce the significance of change and the need to balance
operational and contextual uncertainty to a general project management audience. Up until about the same time as Christensen and Kreiner’s book, most research on project organizing had focused on the instrumental aspects (Packendorff, 1995).

“The Scandinavian approach to project management” (Sahlin-Andersson and Söderholm, 2002a) originates from the mid 1990s, and is known for having a social sciences focus, being empirically driven and context sensitive[2]. The contours of the approach started to emerge with the first “International Research Network on Organizing by Projects” (IRNOP) – conference in 1994 in Lycksele, Sweden (www.irnop.org), arranged by Umeå School of Business, Umeå University which resulted in a Scandinavian Journal of Management special issue (vol. 11, No. 4, 1995). In that special issue, Kristian Kreiner’s contribution “in search of relevance: project management in drifting environments” (Kreiner, 1995) is essentially a short version of the book under scrutiny in this article. This and other articles in the special issue discussed the notion of “temporary organizations”, which became the second starting point for the Scandinavian approach to project management (Ekstedt et al., 1999). The ideas of the book and article were later adopted by other influential and well-referenced works within Scandinavian project research (Lundin and Söderholm, 1995; Packendorff, 1995; Engwall, 2003 – 410, 257 and 303, citations, respectively) that cited Kreiner (1995 – cited 143 times). For example; Lundin and Söderholm developed the idea of the temporary organization as one in which the environment had to be considered, Packendorff (1995) argued for more empirical context-sensitive research, and Engwall (2002) acknowledged the importance of the institutional surroundings as well as time and space. As a side note, the original book has been cited 65 times in Danish, and the Swedish translation 73 times (in total 138 citations on Google Scholar). These citations are in the Danish translation mostly by Danish authors in reports and in some journal papers. The Swedish translation is to a greater extent cited in journals and in student thesises. 138 citations are not extremely much but it could be argued that the contemporary journal format does not promote non-English work, and this partly explains why the article is cited to the same extent as the book (most references to the Kreiner article use Scandinavian languages). In summary, the book carries a message that has become an integrated part of the Scandinavian research tradition both directly and indirectly, in a way that is elaborated upon later in this article.

The Scandinavian approach is recognized for its depth of qualitative empirical research (Sahlin-Andersson and Söderholm, 2002a; Cicmil and Hodgson, 2006), above all through case studies but also through a growing number of participant observations studies (see, e.g. Eskerod, 1996; Lindkvist et al., 1998; Ekstedt et al., 1999; Wikström, 2000 for empirical examples; Lindahl, 2003; Engwall and Westling, 2004; Nilsson, 2004). From the empirical investigations, theories of project organizing have become oriented more to social and organizational science (Cicmil and Hodgson, 2006) and the practice in projects has been debated. Christensen and Kreiner, as an early and insightful contribution, have thus contributed to:

• expanding the theoretical contributions within project management and project organization research;
• making empirical research matter; and
• education for real-life projects.

These areas are discussed below.
Expanding the theoretical contribution

Christensen and Kreiner’s book, among others of its period, introduced social and organizational science in general and institutional perspectives in particular as relevant starting points for the understanding of projects. This has been an important foundation for a theoretical expansion beyond the traditional instrumental project management models (Sahlin-Andersson and Söderholm, 2002a). One path for research within the Scandinavian approach to project research, of which Christensen and Kreiner is an integrated part, has been to investigate roles, activities, practices, and behaviour of individuals as they are part of a project context. Another stream has analyzed projects in terms of temporary organizations and their contextual and organizational features. These categories reflect two thematic areas for research: people and their practice – a theme that strives to understand the individual and social interaction in projects; and temporary organizations – a theme that strives for a broader organizational understanding of projects.

People and their practice. The “people and their practice” theme is evident in the vast number of in-depth case studies that focus on processes and/or detailed studies of situated practice. Early studies of people’s practice include for example Eskeröd’s (1996) study of the behavior of project managers in multi-project organizations. In this study of Danish product development in project-intensive organizations she concludes that the behaviors of the project managers do not reflect the top-down resource decisions they are supposed to execute. Rather the managers act politically to ensure the support and resources they need. This understanding of how the people operated contradicted the common argument that the resource allocation is made top-down using rational models of allocation.

Another early example is Bragd’s (2002) study of the tinkering of a new car at Volvo in which she studied project management meetings and discussions to understand what processes formed the final solution. Contemporary research on people and their practice includes, among other areas, research on critical studies of project organizing, the detailed practice of project practitioners and processes within the temporary organizations. The critical studies perspective on projects is advocated by “making projects critical” – a European group doing research on projects. Examples from their output is Lindgren and Packendorff’s (2006) work on how project work influences the creation of gender in and outside of work. This approach opens up for critical scrutiny on-going debates about the construction of femininity and masculinity in a wider perspective.

Another example is the work of Hällgren and Söderholm (2010) who investigate the detailed management of deviations and how the management of deviations was partly disconnected from the on-going activities, contributing to a system of operations that was constantly emerging. Similar to the critical studies perspective, this avenue of research tries to tie together the micro, meso and macro levels of everyday life (Cicmil and Hodgson, 2006; Hällgren and Söderholm, 2011). Lastly, research on processes in temporary organizations investigate how those processes influence the people or the organization, an example being Vaagaasar’s (2011) study of relationship development processes in a complex technology company.

Temporary organizations. The focus on temporary organizations merges with the focus on people’s practice in the sense that the latter influences the former and vice versa. It is thus not two mutually exclusive categories of research but rather a result
of acknowledging the impact of specific conditions. Early studies of temporary organizations include the lead article by Lundin and Söderholm (1995) in Scandinavian Journal of Management (Miles, 1964; Bennis, 1965; Bennis and Slater, 1968; Goodman, 1981; Goodman and Goodman, 1976). According to Lundin and Söderholm (1995), a temporary organization is categorized by four Ts; time, task, team and transition. Together these concepts constitute a demarcation of a task-executing organizational form where “action”, in contrast to “decision”, is the central component on which theory is based.

From a temporary organizations’ perspective, projects are analysed as a consequence of how they are situated in time and space. For example, the popularity of projects is explained based on institutional diffusion and recognition instead of as a consequence of appropriateness for a particular task. Projects can thus be understood as carriers of bureaucracy and management discipline as well as tools for task execution. Projects can also be understood as arenas for political negotiation and knowledge formation, and not only as a format for work breakdown structures, to give a few examples from the expanding agenda of project research. The general framework is thus similar to the one of Christensen and Kreiner.

Early contributions within this genre include Lindkvist et al.’s (1998) study of how sequential and concurrent organizing logics influence the way knowledge is generated in a product development environment. Similar to Christensen and Kreiner, they argue that the fountain model concurrent engineering type of logic allows for deadlines and milestones to control the operations and provides opportunities for continuous re-evaluation of the operations and goal.

Along the same path, and the work that is perhaps closest to the heretical text of Christensen and Kreiner, is Blomberg’s (1998)[3] myths of projects. In this book, Blomberg breaks with the rational view of projects by showing that many assumptions that are taken for granted may indeed be myths rather than facts. Among other arguments, his point is that projects are not unique, nor are they always time limited, thus reflecting what was claimed in the work cited above. Contemporary research on temporary organizations includes for example “No project is an Island” where Engwall (2003) argues that projects cannot be understood in isolation but rather through their embeddedness in time and space.

Other examples include Bakker and Janowics-Panjaitan’s (2009) work on the impact of temporariness on operations and functions of the firm, and Lundin’s (2009) work on “end states” in temporary organizations where the end of the organization is not necessarily tied to a preconceived point in time but could be associated to for example when the resources end instead. The studies are of course not limited to these few examples. The common denominator (if there is one) is however that this kind of research is often based on case-studies, live material, interviews, and above all, it is focused on a holistic view of the temporary organization (Sahlin-Andersson and Söderholm, 2002a). For a review on the temporary organizations stream of research see Bakker (2010) and in relation to other “schools” of project organizing, see Söderlund (2010).

*Making empirical research matter*

Christensen and Kreiner made their contribution not only in terms of how to understand projects but also in terms of how to study them. The book is thus part of the contextually sensitive empirical research for which Nordic research is known. Being contextually
sensitive does not refer only to considering people’s activities. Segments of the arguments of Christensen and Kreiner could also be related to the investigations of the multi-project environment, and the investigations of project strategies and project business. The common denominator is that the project is not the isolated organization that behaves outside of ordinary business norms. Rather, the project in itself is a competitor for resources with other projects in an organization – which influences its operations (Engwall and Jerbrant, 2003); a way for the organization to achieve for example, a product strategy by backing certain projects (Artto et al., 2008); and a way for organizations to uphold their business (Artto and Wikstrom, 2005).

The in-depth case studies that are common in the Nordic countries are arguably a result of the openness of participating organizations. Without the willing participation of the organizations, the research would have been futile. There are many examples where researchers have spent considerable time within an organization to understand the inner workings of its operations. A notable example is the “Lean site management” – a project from the Research Institute for Project-based Industry in Finland that at the end of the 1990s had participant observations and other qualitative material from several dozen full engineering projects. Here the methods included students, including graduate students, working full time in projects, writing daily diaries. The “Lean site management” project resulted in several dissertations and papers, of which Lindahl (2003) is one example of participant observation, dealing with improvisation during the construction of diesel power plants. Other examples of in-depth case studies include Jacobsson’s (2011) study how the acts of coordination develops over time in infrastructure projects. It relies on a case-methodology and mostly interviews; Olsson’s (2006) study of flexibility of 18 cases in different Norwegian industries relies on personal experiences, applied research and third party evaluations; and Bredin’s (2008) study of human resource is centred on project oriented companies.

The common denominator between many of the studies is a fascination for the micro-activities of the practitioners. That is, what the project managers and the team members say and do is of particular interest. This approach has been described as a part of the general turn towards practice-based studies in social science (Blomquist et al., 2010) and a call for investigating the actuality of project organizing (Cicmil et al., 2006).

**Educating for real-life project work**

Christensen and Kreiner’s book has not only influenced the theoretical development of contemporary research and the way empirical studies are conducted, but also the way project management is taught today, in many Universities and Business schools throughout Scandinavia. Linneaus University, University of Borås, Umeå University, Malmö University, Linköping University, Mid-Sweden University, and Royal Institute of Technology, for example, still use the book in their project management teaching[4]. Even though it is more than 20 years old, such extensive ongoing use of the book is testament to its impact.

The developments in this area are arguably noticeable in three different ways. First, the book has been used in teaching as a counterbalance to the traditional textbooks on project management. Second, Christensen and Kreiner’s ideas have either been incorporated into other textbooks or influenced authors; and third, the book has indirectly softened the tools and methods type of teaching and opened up the field for critical, contextualized, and reflective approaches – an outcome that can mainly be
ascribed to the focus of theoretical development being on temporary organizing and everyday practice as previously discussed. Although this third type of impact is not directly obvious in terms of actual references to Christiansen and Kreiner’s contribution but it is a central part of its legacy.

There are a number of examples where textbook authors have based their argument on the ideas, conclusions, and “ten pieces heretical advice” presented by Christiansen and Kreiner. A few examples regularly used in project management education are Wenell (2001), Malmgren and Ragnarsson (2001), Stjernberg et al. (2008) and Macheridis (2009). In all of these, it is clear that the essence of Christensen and Kreiner’s book has inspired authors to focus on roles, activities, practices and the behaviour of individuals as part of a project context. There are however, big differences in how the authors relate to the book.

In a recently published third edition, Macheridis (2009) adopts a knowledge perspective and describes the project as a process of knowledge development. Contrary to traditional textbooks (Gray and Larson, 2008; Macheridis, 2009) does not take a top down approach to managing projects. Instead the starting point is the conditions and challenges facing the individual project member in the knowledge development process which occurs in parallel to the project process. On the other hand, Wenell (2001), who has a fairly traditional perspective on what a project is and how it should be run, still provides an open discussion and reflective suggestions on how to relate to normative models and methods. Stjernberg et al. (2008) incorporates both the more contextualized and individual challenges when analysing project businesses. The book thus goes beyond the single project, incorporating the institutional challenges as one of the backdrops to its authors’ reasoning. Christensen and Kreiner also discuss the sources of complexity and stress, as well as how to motivate and create competences and develop strategies for involved project members. Marmgren and Ragnarsson (2001) build their argument on the new demands brought on by contemporary organizational requirements for flexibility and creativity. The authors argue that trying to plan and control such undertakings not only runs the risk of inadequacy, but of also leading down the “wrong path”.

Even if Christensen and Kreiner’s reasoning is identifiable in the textbooks mentioned there is also a great variation in how extensively referenced the book is. This is interesting since over time their thoughts have implicitly or explicitly become an integrated part of the Scandinavian school of thought. In Macheridis (2009), Christensen and Kreiner is one of the core references whilst Marmgren and Ragnarsson (2001) clearly (and perhaps most closely) draw on the theoretical influence of Christensen and Kreiner without directly referencing the book.

In the prologue of Christensen and Kreiner, the authors encourage the reader to form a critical perspective. Trying to be both “humble and vain” at the same time, they wanted to promote a dialogue and aimed at awakening a scientific discussion rather than providing a blueprint for project management. Put in this perspective, the authors have succeeded in reaching their goal, at least in the Scandinavian countries.

It is important to stress that the actual development of the three areas discussed (that is, theoretical contributions, empirical approaches, and educational influences) has been (and still is) an interwoven and continuously self-reinforcing process. The influence of the book and the changing conditions it describes have, as discussed, opened up the field for alternative theoretical perspectives and a wider variety
of empirical research. The consequent increased and broader understanding has at the same time influenced both educational and project practice that in turn further opens up new perspectives and broader understandings.

Discussion
This paper set out to offer an overview and analysis of the legacy of Christensen and Kreiner’s classic – Projektleddning: Att leda och lära i en ofullständig värld. From our perspective the book criticizes the project research that had been made hitherto, arguing that it was immature in the sense that it did not acknowledge the ever-changing conditions in society. Changing conditions contribute to an increased contextual uncertainty that projects are ill-equipped to manage due to an overly rational belief in task execution. This focus on rational task execution gives rise to a lack of adaptation and a less successful project outcome. As some of the first to acknowledge the impact from institutional changes and the balance between operational and contextual uncertainty to projects, we argue that the legacy of the book have made three main contributions above all to a Scandinavian audience: expanding the theoretical development; making empirical research matter; and educating for real-life projects. From positioning the ideas of Christensen and Kreiner more generally in the Scandinavian research on temporary organizations (projects), it is possible to understand how the latter has evolved, and how the contributions from the former have been a part of shaping it. From there, the contributions of the book to a contemporary audience can be drafted. The main lessons that can be drawn from the book and their effect on the future are shown in Table I, where we draft the main developments, give some examples of studies and try to prejudge what the future may possibly look like.

The book in perspective
Before we elaborate on what can be learned and provide some suggested future directions, the book needs to be put in perspective. Although we acknowledge the implicit and explicit impact and conceptual strength of the book, it could be criticized

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<td>Detailed and situated multi-level casestudies</td>
<td>Increased use of case studies, critical books and situation sensitive teaching methodologies</td>
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in four ways: first, relying on second hand material leaves other researchers and practitioners to investigate and experience the impact of their ideas; second, promoting a controversial approach to projects has possible harmful long-term effects on personnel – particularly in project-intensive organizations where individuals move from one project to the other and thus rarely get to recuperate; third, although learning may be beneficial for results in both intra- and inter-projects, the cost of learning may be too high and less distinct for either type of client to accept the cost. That said, it is not clear whether the approach translates to projects with an external client. However, with the increased use of partnering projects in the construction industry for example, the reliance and acceptance of uncertainty seem to emerge through the use of a shared vision rather than a clear goal; fourth, if a project is a continuous learning process, it is hard to know when to stop since such a vision is an ever retreating target. Associated with this, economic considerations probably limit the way in which the ideas may be applied.

A part of this critique is that some of their ideas have not had any significant impact. One example is the idea of the power of the vision. Although many researchers and practitioners acknowledge the importance of a vision, it is rare that the vision as such is used as the guiding light, disconnected from a distinct goal. Moreover, Christensen and Kreiner acknowledge the importance of considering the drifting environment and motivating personnel beyond the instrumental goal, but the full potential of social sciences has yet to be applied to project research. Last but not least, the full impact of their ideas is hard to appreciate since having a distinct goal, a project plan and explicit activities to execute are factors that give purpose and rationality to a certain behaviour (Brunsson, 2006). With this in mind we nevertheless put forward some lessons and possible directions for future research.

Lessons and possible future directions

There are many potential lessons from the book that have not yet been fully utilised, but we focus on three of them that follow from the impact on different parts of academia. These lessons are associated with the book but also with the general discourse of which it is a part. The first is the importance of relating to the practice of the project members in order to understand the balance between competing forces in everyday work, as explained previously in Figure 1. The second lesson follows from the first since, in the words of Argyris and Schön (1996), theory-in-use and espoused theory differ. Therefore, there is a need for an increased use of detailed longitudinal case studies and participant observation data to reflect the balance between theory and practice and the entire organizing process in detail. The third lesson is that there is a need for reflective project management education that prepares students for the reality to come.

Lesson 1: Focus on the details of organizing

The first lesson concerns the reality of project management that is reflected in the Eagle-project that Christensen and Kreiner use as their empirical backdrop. As shown in Figure 1, project managers are torn daily between the demands of the institution towards the project, the reality, the tools and the learning processes. These competing forces shape and are shaped by the on-going processes and activities: emphasising any set of forces biases the analysis. Christensen and Kreiner’s case may show evidence of a harsh reality and ethical concerns have been raised towards their ideas for project
management (pp. 122-3). Nevertheless, those ideas still reflect a subtle reality and ethical considerations that probably most people in projects encounter. This reality and these considerations should therefore not be neglected as part of extreme forms of project organizing. Whether or not it is good project management is not as relevant as the fact that it is reflected in on-going practice. Therefore, we suggest that the main lesson from Christensen and Kreiner can be found in how daily practice shapes and is shaped by competing demands as well as the present situation, and how this may be used for theorizing about the temporary organization and projects.

Following the call for critical theory studies of the empirical phenomena (the project) we would like to draft a possible theoretic agenda for future investigation that is not restricted to critical studies but takes a general practice-based approach to project organizing. Such an agenda would include two parts: an increased focus on the details of project organizing and a second part that follows from the tendency to examine features specific to that context rather than regarding it as a static tool that is entirely different from other contexts. Instead of being a search for inspiration to project research from organizational theory, the contribution changes to how the notion of temporary organizing influences contemporary work operations, thereby becoming a contribution to general organization theory from an understanding of temporary organizing (Jacobsson and Söderholm, 2011). The second part would thus possibly be preoccupied with a search for contributions to general organization theory.

Similarly to most others, Christensen and Kreiner concentrated upon the task of the project manager. However, a focus on organizing is not restricted to investigating the activities of the project managers. It also acknowledges the influence that team members and other stakeholders have upon the project outcome and connects the details of organizing to general phenomena in society (as Christensen and Kreiner did when acknowledging the institutional impact on operations). Future research should not be restricted to the managers of projects. It should also put emphasis elsewhere, such as for example, on the role of secretaries who develop protocols; the development of the project worker profession; the consequence of the diffusion of projects into society; and the impacts upon what is considered “proper” projects, as well as how they can be understood. Similar to critical studies of project work and studies of the practice within projects, we therefore argue, in the same vein as Christensen and Kreiner, that more holistic views of project organizing are needed, connecting the micro level of project work (for example, the development of the project plan by the junior engineer), to the meso-level (for example, showing how a plan look in a company) and both to the macro-level (for example, understanding what a project should look like).

Christensen and Kreiner’s general point is that the project is not the isolated phenomenon that project literature often portrays it to be. This recognition opens up avenues for research and contributions from temporary organizations (projects) to a general audience, going beyond much project research that has been hitherto been apprehensive of research in the social sciences. One important insight from the book is thus that projects are a part of conducting business and how that is done will influence the inner workings of the project and vice versa.

Lesson 2: Projects in context
One main issue underlying the Christensen and Kreiner book is a deep understanding that projects are always situated in a wider institutional context (Engwall, 2003).
Relations between context and projects (and project management) are not instrumental. This is a quite different understanding and it requires an analytical and theoretical approach that is consequently quite different from an approach to project management that emphasizes tools and techniques. It is not enough to understand stakeholder interests; stakeholders need to be understood as norm-setters and as having institutional roles.

A project thus has a unique position in time and space where a web of influences and relations are formed both in terms of precise rules and in terms of their vague cultural atmosphere and institutional norms, or even organizational fads. Moreover, roles, rules, norms and fads may change over time, or be expressed differently in the different phases of a project (Kreiner, 1995).

The book itself does not advocate the use of detailed situated data. However, to understand the competing forces in full and the distinct practice to which those forces give rise, there is a need for such data. This data does not necessarily have to be participant observations, although there is indeed a challenge to reflect the details of work through other means of data collection. Data to understand projects in context may need to be collected, not within the project or in the immediate surroundings, but from norm setting organizations, major stakeholders, some at quite a distance, and in parallel or competing organizational settings. To go deeper into the explanation of project behaviour and performance, the analytical approach may have to be broad and context based.

The challenge goes beyond mere data collection – it is concerned with how the competing forces are tied together. For example, between the institutional deadlocks and the present situation that Christensen and Kreiner discuss, there are several levels of organizing that influence ongoing practice. There is the micro situation – for example, the reputation of the project manager allowing for more or less flexibility. There is the meso situation – for example, how projects are done at a company and what the clients in a specific industry expect from a project.

There is also a macro level, or institutional level, where the growth of project organizations can be analyzed in terms of overall industrial or management trends. Project organizations are part of organizational structuration and institutional change processes where, over time, different organizing modes may be more or less popular (Blomquist and Söderholm, 2002; Hodgson, 2004). Christensen and Kreiner indicate this level as a possible avenue for analysis (more clearly spelled out in the article (Kreiner, 1995), and this too is a questioning of the belief that local and rational arguments are behind the creation of a project.

Lesson 3: Detailed case-studies and situation sensitive teaching methodologies
Assuming that the practice in numerous studies of project work reflects reality, (see for example Söderlund’s review of Chandler in this special issue, Hallgren and Söderholm (2010) or Bragd (2002)), this reality should also be part of what students and future practitioners are taught. If the practice is hidden and considered irrelevant because it goes against rational behavior and task execution, students are not only fooled, they become ill-equipped for the reality when the tools and models only are a part of what they are supposed to do. A critique of management education along similar lines has also been delivered by influential authors, for example, by Mintzberg (2005) in his book on the shortcomings of MBA programs.

There is therefore a need for introducing books such as that of Christensen and Kreiner which dare to overturn ideas that are taken for granted. These authors craft their
discussion carefully, arguably in order not to be refuted in an instant since provocations have to maintain some basic principles of the reader to remain interesting (Davis, 1971).

The third lesson of the book is therefore how to frame the insights and carefully introduce the reality, partly in contradiction to, and partly merged with, the textbook version of rational project management. We believe that Christensen and Kreiner offer a reasonable way forward when they show that tools and models are a part of the project practitioners’ repertoire but not the entire truth. In a learning environment, teaching should therefore encompass both the usual textbooks as well as books like Christensen and Kreiner in the interests of balance. Further, other teaching methods, such as the use of detailed case studies, elaborate student discussions, mentorships with practitioners, and personal reflective diaries would also be valuable. All in all, teaching methodologies should reflect the complex and uncertain world that will confront presumptive practitioners in practice.

Conclusions
In this article we have provided an overview and analysis of Christensen and Kreiner’s book Projektledning: Att leda och lära i en ofullständig värld, and how it has influenced the Scandinavian approach to project research. The analysis however comes with certain limitations. First of all, the review of the book relies on our understanding and interpretation of its contributions, its diffusion and impact. Our analysis is thus based on direct and indirect support of our analysis, and our general understanding and experience of the development of Scandinavian research. That said, the purpose is to review a book and give insights about general patterns rather than provide “hard facts” about its diffusion and adoption. With this limitation in place, some reflections still seem in order. The book has been part of the general loosely held together Scandinavian School of project management and as such has influenced the way project organizing is researched and taught. In hindsight, the heretical arguments and advice the authors offer largely exist in the everyday practice of project managers and should thus not be refuted on the basis of an apparently irrational surface. This is also reflected in the growing number of studies that pay detailed attention to the situatedness of temporary work, revealing inner workings that are hidden when partial single-level analysis is provided. The three lessons for research, data collection and education reflect this growing attention by suggesting that an increased understanding of projects should start with a detailed multi-level analysis of temporary organizing to provide a sound foundation on which to base future research and teaching.

Notes
1. When not otherwise explicitly stated, a reference to Christensen and Kreiner without a year refers to the 1997 Swedish translation. We have used the Swedish book instead of the original book published in 1991 in Danish since we are fluent in Swedish but not Danish and therefore might miss language nuances.

2. For an elaboration on the approach please, see, e.g. Lundin and Södeholm (1995), Ekstedt et al. (1999) and/or Sahlin-Andersson and Söderholm (2002b).

3. Christensen and Kreiner’s book interestingly come up as Google’s suggestion for “similar books” to Blomberg when searching on Google Books.

4. The extent to which the book is actually used may vary. This is only based on the book’s presence in course syllabuses.
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