Information Systems Management
Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/uism20

Innovative Practices for IT Projects
Blaize Horner Reich \textsuperscript{a,b}, Chris Sauer \textsuperscript{c} & Siew Yong Wee \textsuperscript{d}

\textsuperscript{a} Segal Graduate School of Business, Simon Fraser University, Vancouver, Canada
\textsuperscript{b} Templeton College, Oxford University,
\textsuperscript{c} Templeton College and Said Business School, Oxford University, UK
\textsuperscript{d} Consultant, North Vancouver, BC, Canada


To cite this article: Blaize Horner Reich, Chris Sauer & Siew Yong Wee (2008): Innovative Practices for IT Projects, Information Systems Management, 25:3, 266-272

To link to this article: http://dx.doi.org/10.1080/10580530802151210

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: http://www.tandfonline.com/page/terms-and-conditions

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae, and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand, or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.
Innovative Practices for IT Projects

Blaize Horner Reich1,2, Chris Sauer3, and Siew Yong Wee4
1Segal Graduate School of Business, Simon Fraser University, Vancouver, Canada
2Templeton College, Oxford University
3Templeton College and Said Business School, Oxford University, UK
4Consultant, North Vancouver, BC, Canada

Abstract Based on 57 interviews with senior IT project managers in the UK Canada, USA and New Zealand, this article presents innovative practices they have developed during difficult projects. In our respondents’ view, traditional project management methods and techniques are only a starting point. Through their quotes, they show how one has to be creative and entrepreneurial to lead projects successfully.

Keywords project management, innovation, information technology project

Recent studies have shown that IT-based projects have started to deliver better performance compared with the mid-1990s (Sauer, Gemino, & Reich, 2007; Johnson, 1995; Hartmann, 2006). This improvement is intriguing because research has also found that projects are increasing in complexity both organizationally and technologically. This study was initiated to discover what project managers were doing that might explain the increased performance.

One common characteristic encountered was an unflinching realism about the challenges of IT projects. For example, senior project managers understand that their project teams are rarely on a well-defined journey where time, schedule and scope can be controlled tightly, where the milestones are fixed and clearly marked. Rather, they are on an expedition. Along the way, the unexpected happens and plans are challenged, if not destroyed.

This realism has resulted in project managers addressing the three deficiencies of traditional project management: (a) inattention to the importance of customers; (b) narrow definition of what project management should be concerned with; and (c) single-minded focus on a fixed set of tools and techniques (Frame, 2002, pp. 6, 7). They accept that if the world has changed for the project client then, however difficult it might be, they must do whatever will assist the client. If this means change to the project specification and scope then they accept it. They understand that the responsibilities of project management extend beyond established boundaries. Where once project managers took defined terms of reference and strove to deliver a technology product, today’s realism means that it makes sense to be more involved in project formulation and justification activities and in post-implementation benefit delivery. They use a wide variety of innovative approaches. While they do not disregard the best practices of traditional project management, they bravely step away from adhering strictly to the “thou-shalts.” In this article, we share their insights and methods in the hope that they will be useful to theory building as well as practice.

The practices in this article are not meant to be comprehensive. They are a synthesis of the most interesting techniques that our 57 informants shared in interviews. In our view, each technique has a time and a place where it will be most useful. Its application will be a matter of judgment for the individual project manager. However, the underlying assumption is that they are most important to consider for tough projects—projects where the client or project organization is complex, the requirements are not well understood, where changes in industry or business strategy occur, or where technology is immature.

Many of these practices may seem counterintuitive, especially to project managers who have been taught to follow accepted best practices and methodologies carefully. We see them as appropriate innovations in the face of the need for resilience and adaptiveness. We make the case for their appropriateness when we describe each innovation below.

Address correspondence to Blaize Horner Reich. E-mail: BReich@sfu.ca
Methodology

This research grew out of a study designed to explore the roles and skills needed by project managers who oversaw large, transformational projects. We started the project by interviewing a set of highly visible project managers (i.e., people who rescued large projects, were thought leaders or who led corporate project offices). These initial contacts suggested other project managers whom they respected and the sample expanded organically. This “snowball” technique resulted in interviews with 57 project managers from four countries - Canada, U.S., Britain, and New Zealand. Our interviewees on average had 15 years of experience as project managers. They worked in a variety of organizations, including both private and public firms and the sample included both internal and consulting project managers.

The interviews lasted approximately one hour and during that time, the interviewees were asked to reflect on and describe the practices they used during the most difficult of projects. The interviews were transcribed and put into a database, where they could be coded using a qualitative analysis tool, ATLAS.ti. One of the coding themes was “innovative practices,” which we defined as novel or counter-intuitive activities. Quotes to illustrate each practice were excerpted and have been used in this paper. Because this was not a statistically generated sample—the codes were selected and analyzed by a team of researchers—not a statistical package, we do not claim that the findings are comprehensive or predictive. We believe, however, that these creative insights will prove useful to practice and may impact future research and guidelines for the IT project management community.

Findings

The innovations described below vary. Some are innovative in that they are contrary to conventional wisdom. Some are innovative as entrepreneurs and expedition leaders are: they are expedient ways of solving problems in uncharted territory. Some are innovative in the manner of creative artists. For each in turn, we characterize the innovation in contrast to traditional approaches; we explain why it appears appropriate; we describe how to apply it; and we note any additional consequences. We present these practices using the words of the interviewees wherever it usefully adds detail and impact.

For convenience, the innovative practices are positioned within the project life cycle stages where they can be best applied.

1. Goal Definition
2. Project set-up
3. Project Execution

We recognize that they may be appropriately applied at other stages.

Goal Definition

The project managers we interviewed do not simply accept the project goals as presented to them. They believe that their responsibility is wider in scope and take it upon themselves to collaborate with the sponsors to ensure the project contributes value to the business.

There were two innovations in the goal definition phase:

■ Challenge the customer
■ Deliver value early

Challenge the Customer

Traditionally, organizations have expected project managers to fulfill a support role where the business customer is always assumed right. Today project managers try to understand what the customer needs. This helps them avoid the classic problem of clients saying at the end of a project, “you’ve given me exactly what I asked for, but it’s not what I needed.” It applies at three stages. At the beginning, achieving goal clarity allows the project manager to match goals to the appropriate set of deliverables. During the project, this match between goals and deliverables allows the project manager to monitor changes to either one and to ensure they remain in alignment. At the end, the project manager is often evaluated on his/her contribution to business value, not just budget and scope attained, so value delivery is important for career success.

Successfully challenging the client typically requires the project manager to have established a good relationship with the executive sponsor and client manager. The necessary trust can be built through consistently transparent, open, and timely communication. It also requires mature influencing skills. Project managers who have a respected track record in the client’s business line often enjoy an advantage in such challenging conversations. One consequence of challenge can be a significantly enhanced reputation with the client.

Deliver Value Early

It has been customary for IT projects to be structured so that significant benefits only flow when the whole project has been completed. Structuring projects to deliver value early is a relatively new development. The advantage of this approach is that it can provide the project with early momentum: “If you take some of the deliverables
and deliver them earlier, then you can start achieving business value earlier.” This is highly motivating: the client is supportive, the team is proud and confident, and the business has some early payback. Just as important, the learning on the client side has begun. As results are delivered, the organization will need to readjust its processes to maximize the value of the new system. This adjustment will create a learning effect, which will influence the remainder of the project.

The entrepreneurial project manager matches his/her pace to the competitive environment both in structuring the deliverables so that the most valuable come first and in striving to deliver ahead of schedule. They do so by being insightful and exploratory in their discussions with the customer in the early stages of the planning cycle, finding out what is most important and trying to fast track some of this value. They focus on what the customer really wants to achieve rather than what they want the system to do. This requires significant business knowledge and experience.

Project Set-up

One senior project manager said of his activities during project set-up, “Everything I do here is magnified 100 times.” Other project managers agreed that the most important innovative techniques fall into this stage of the life cycle. If done right, the project is set up for success.

We identified five categories of creative practices in this phase:

- Create a Resilient Team
- Prepare for the Unknown
- Train the Sponsor
- Focus the Team on Business Value
- Plan for post-delivery

Create a Resilient Team

Team selection and management has always been recognized as an important task of project management. In practice, however, project managers have often had to settle for whoever they were given by the managers who owned the resources. Our interviewees were very clear about the importance of getting the right people on their teams. Whenever possible, they influenced decisions about team makeup, “If I can set the project off in the right direction and do the right things in terms of people selection, I can almost guarantee my success.”

They suggested several different practices to create a “resilient” team—one which can weather adversity and keep productive. Their advice is to hire team players and “double up” the team.

Hire Team Players

Many project managers will try to get the best people and the best specialists on their project team. Our interviewees agreed that experts are needed, but they suggested that a team selection process focused on experts might not result in a team that works well together. Rather they favored a motivated and reliable team in which the members complement each other. They add experts carefully to this kind of team. “[I do not want] the prima donnas who are ready to get out of here as soon as they’ve done their thing. I want people that will sustain the project.”

The advantage of this approach is that faced with tough challenges the team is more likely to exploit its full intelligence rather than rely upon hero individualists who may not understand the whole of a complex situation.

One method several of them mentioned was to create their own network of people with whom they had worked on previous projects, and who had worked with each other ideally, and monitor their availability. “I need really good people. So I do my networking and say, I want you - what are you doing? Then I go to the resource manager and say, I want Peter because I know he is free.”

They do not necessarily look for the greatest depth of experience but instead look for team members who are ambitious, focused on project goals and eager to contribute and learn. “I want to find people that are hungry. They may not be the best . . . but they are willing to go the extra mile to learn something”

They also consciously try to avoid the trap of hiring in their own image. Rather they focus on the capabilities the project requires in its management team. “A good general knows his strengths, but even more so knows his weaknesses, and surrounds himself with lieutenants so that as a unit you provide a complete team.”

A project manager is like the CEO of a temporary organization. We often read about CEOs who accept a new position and bring in their key finance or marketing VP with them. In the same spirit, if a PM on a difficult project can staff key parts of the project, the teambuilding can be accelerated.

“Double up” the Team

Most project managers do not have a budget to hire back-ups for their key team members even though in long projects, the team may turn over completely as people move to other positions or other companies, or become ill. “The project averaged between 60 and 80 people, as core team members. We at least changed the whole group once [over a 3-year period]. We had between 50 and 100 different faces come and go during the project.” Often, project managers just accept the fact that the lost knowledge will result in
They explicitly invest in creating knowledge networks that are available to the team by establishing “lifelines.” Lifelines are people who can be called up in a project crisis to provide guidance. “At the outset, we establish as a team, the “lifelines” that we are going to need. These are people we know out there, that we could bring in, if we get into trouble.”

They also bring “connectors” onto the team. Connectors are people who have a wide network of knowledgeable resources who can be called upon. “When I do the team selection, one or two persons have to be connectors. Connectors are people who know people. They’ve got a network and they can activate that network.”

Train the Sponsor

Involvement of the executive sponsor is widely held to be one of the most important factors in project success (Reich & Benbasat, 1990; Standish, 2001; Belout & Gauvreau, 2004) because sponsors can provide essential resources, political coverage, and support. In the IT world, however, it is common to hear complaints about the business clients and the users: they do not know the project process, they do not make decisions in a timely manner, and they are not available when needed.

Our project managers make it a priority to ensure that business clients are productive partners of the project. They do not expect the business customers to know what the project team is doing automatically, or what they are supposed to know. They use a variety of methods, but the primary one is to spend time to get to know the sponsor - his/her goals, constraints, and competence level. They deploy a variety of methods to help educate the sponsor. These range from meeting the sponsor privately to map out the key project deliverables to running workshops for the client about the project needs to operate. They strive for effective communication whether it is by ensuring they are at the big picture level or by using familiar points of reference. For example, “We put on a half-day seminar called “building success.” It was for business people about running a project team. It works on the analogy of getting a house built . . . it looks at all the stages you go through and they can map that out to an IT project quite nicely.”

Focus the Team on Business Value

In most projects, the focus for the team members is the task-at-hand and the timeline. Our respondents stress the importance of having the team members also understand the big picture – the value for the end customer. This tactic is very similar to that used by CEOs who create a compelling organizational vision to facilitate managers making the right decisions and prioritizing correctly.
Creating a project vision that is tied to business value and helps team members understand the end goals relies on the understanding that the project manager has developed at the beginning of the project about the connection between goals and deliverables. It puts this understanding into a clear, compelling, actionable message:

We created a little sheet with a 15-word mandate of what we were trying to achieve from a business point of view. We gave a copy to every single person on the team, both the technical team and the business team. I knew well we had achieved success when the . . . business architect saw that little sheet . . . and he patted it with his hand and he said, . . . I don’t think we need to do [X] because it’s going to get in the way of us achieving what we have to do.

This focus on business value can prove very helpful in resolving conflicts, avoiding unnecessary work, and ensuring the team produces business value.

Plan for Post-Delivery

Most projects hold a celebration shortly after the software is launched into production. Project managers we spoke with understood that the launch is not the end of the project for the business. They plan for post-delivery. They understand that they have a responsibility to facilitate the achievement of business value and expect to continue their work until the system is “bedded in.” They see this commitment as a part of the project scope.

They focus on preparing the business as much as possible pre-launch and keeping it alert to any actions that may be required post-launch. Pre-launch, they book meetings to secure the involvement of the business managers and to ensure that the business is prepared for the implementation. Post-launch, the meetings are to ensure that the business has early warning of any issues affecting business operations while the project manager hears firsthand about the business issues and can address the most important ones first.

We didn’t declare victory on go-live day. We had been preparing for the three months that followed it. From day one [after go-live] it was daily monitoring with the senior national managers . . . It was only for 15 minutes that they had to dial in every day, and log their business operation issues. Once things had stabilized, we cut that back to once a week and then started dropping the frequency of those. That was all about mitigating business operations risk.

Another approach is to put in place systematic monitoring using previously prepared business measures. These can be discontinued when no longer necessary:

We had pre-identified all the potential risks that could happen in operations as a result of this new system going live . . . . . . we had already built in performance metrics to measure those. These were metrics that would give us an indicator of whether the risks were occurring or not. It could be people just not understanding and misusing the new system. It could be system flaws, it could have just been simply a bit of bedding in. The reason we had done that is because the key risk post-delivery was actually getting the organization to work.

One benefit of planning post-launch support early in the project is that it will highlight the key operational issues that the installation is likely to face. This warns not only the project team but also the client manager of processes that may need to be changed. It also allows the client time to collect the baseline data needed to evaluate the impact of the IT project. Both of these “early warnings” help the project to achieve its business goals.

Project Execution

Most project-management guidebooks advise a project manager to manage to the project plan, minimize changes, and focus on the targets. While not ignoring these traditional project management processes, our respondents recognized the need to be flexible and adaptive. The innovations they employ during the project can be categorized into four practices:

- Adaptively Re-Plan
- Use Meetings to Focus Attention
- Encourage dissent
- Empower and delegate

Adaptively Re-Plan

On most projects, the project plan is the bible and the baseline. Much time is spent on measuring how much the project has deviated from this baseline and how best to get it back on track.

Project managers in our study told us that they develop adaptive re-planning capabilities in their project team. This enables rapid adjustments to respond to changes in the project or its environment.

The essence of adaptive re-planning is to create the project plan together with the team. Through this process, the team members learn what the deliverables are, as well as the rationale for each deliverable. They also understand the dependencies. (In one extreme case, the project manager work-shopped the plan for two weeks with his team and then ceremonially burnt it on the grounds that the team now understood everything that was important.) One consequence of an adaptive planning process is that when something is not working, the
team does not automatically try to fix it and get back to the plan.

This willingness to use the plan as a guide and not as a master allows the project manager to look for new ways to deliver the project and to give the team more power over their tasks and timelines since they understand the relationships between the deliverables.

**Use Meetings to Focus Attention**

Many articles have been written on how to conduct as few meetings as possible to not waste people's time. When a project gets into difficulties, it is tempting to see meetings as an impediment to progress. In contrast, our project manager informants hold more meetings when they hit a rough spot. Much like football and basketball coaches, they have huddles and time-outs with team leaders and managers. They try to create an environment where problems are openly brought forward and can be addressed as soon as they are recognized. Establishing a no-blame culture is essential to making this approach work. The meetings are designed to secure a shared view of the situation and agree not what the solution is but who will take responsibility for its being solved.

*We will have what we call morning prayers from eight until nine. All the managers get together to discuss what happened yesterday, and what we are going to do today and are there any inherent problems, do they need help. That is when you are very tight, so a single day can mean a catastrophe. If it is a bit more relaxed, then you would have the same thing weekly.***

**Encourage Dissent**

Some project managers are very conscious that they are at the apex of the project pyramid. They feel that they ought to know enough to be able to make all the decisions in their project. Most want the team to follow the rules. How else can they be expected to manage the project?

Our informants encourage dissent. They realize that as projects get more complex, it is impossible for any individual to have all the answers. Slavish adherence to rules and uncritical acceptance of decisions rob the project of the full potential intelligence and experience of its team members.

Project managers therefore aim to create a climate in which the team is encouraged to think reflectively, challenge decisions that don’t seem right, and break the rules if needed, "Sometimes my suggestions are wrong or wacky. I expect the team to disobey me if I'm asking them to do something that is silly. I hold them accountable if they go and do it."

Pre-conditions of creating a team that will challenge the project manager and each other are mutual trust and discipline. However, when the team takes on accountability for problem solving rather than depending on the project manager, the results can be accomplished more effectively and with less wasted effort.

**Empower and Delegate**

Many project managers believe that their job is to manage the project, monitor activities, track details. They are focused on command and control. Our informants prefer to empower and delegate. In large projects, this means that problems are solved where they are best understood.

The approach they use is to hire professionals who they can trust. They delegate authority. They personally resist engaging with the detail. They operate on a no-blame basis. They engage with a problem when asked but on a limited basis, "when people come with an issue, we revert to the three key questions: What is the issue? What are you going to do? What am I going to do?"

Since much of a project’s difficulty may stem from organizational complexity, the project manager needs to spend a lot of time outside the project team. When a project manager trusts the team to solve problems, this frees up his/her time to do more value-adding activities, such as working with user managers or with the sponsor.

**Conclusions and Implications**

This article reports practices that senior project managers use when faced with difficult projects. Their techniques are somewhat counter-intuitive and challenge accepted wisdom. These project managers share a similar approach of building an innovative and adaptive team, focusing them clearly on business objectives, and coaching them on how to deliver business value under stress. As one author (Foster, 2001, p. 13) described the mindset inside a tough project "we co-create the future; we are not in control." The result is a team that can adapt when adaptation is needed, innovate when innovation is needed, and break rules when this is required. Difficult projects contain much uncertainty and danger and only teams that can act collectively to learn and create new solutions can be successful.

**Author Bios**

Dr. Blaize Horner Reich is a professor in the business school at Simon Fraser University. Before her graduate studies, Dr. Reich worked for many years in the IT industry as a practitioner, project manager, and consultant, focusing on the financial services and utilities sectors. She is currently an editorial board member for several academic journals and a corporate director.
Dr. Reich’s research has been published in a wide range of journals, including MIS Quarterly, Journal of Management Information Systems, International Journal of Project Management, Information Systems Research and the Project Management Journal.

Dr. Reich’s current IT project-related research focuses on knowledge and learning, modelling risk and performance, and the evolving role of project managers. She speaks frequently at academic and practitioner gatherings and, with colleagues, has launched a research-based, interactive website called PMPerspectives.org for project managers.

Dr. Chris Sauer has 30 years experience in the information technology (IT) industry as a computing professional, consultant and academic. In the international community, Dr Sauer holds a number of positions including joint editor-in-chief of the Journal of Information Technology. Dr Sauer is the author of many books, chapters and journal articles. He contributed a chapter to the AMA Handbook of Project Management, which won the 2007 David I Cleland Literature Award. Dr Sauer has conducted consulting and training assignments for a wide range of private and public sector organizations. His research interests cover a wide scope and his current primary research stream seeks to improve IT project outcomes through knowledge and risk management.

Siew Yong Wee, PMP, worked as a project/program manager in the telecommunications industry in Canada. Her projects included delivery of marketing products, coordinating with nine other telecommunications companies in Canada across multiple time zones; her sales program projects covered the complete life cycle of the sales process and meet the requirements for multiple lines of business.

Ms Wee holds a Masters Certificate in Project Management from the George Washington University. She has also been published in the Project Management Journal. She is currently researching topics including the evolution of the project manager and factors that contribute to the success of IT projects.

References


