Crossing Over from IT to Business-Oriented Project Management

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Introduction

IT project managers face a tough choice today. The late 90s was an incredible gold rush for IT, with salaries increasing dramatically, and unemployment rare and fleeting. The Internet bubble burst on Wall Street in the early 2000s, and front-page headlines in every major newspaper and magazine announced the end of an era. Many IT workers were confused, like the first gold rush miners when the gold ran out, wondering what to do now that the gold was hard to find.

The great news is that there is tremendous opportunity for IT project managers, both within and outside of IT. Our current roles and jobs offer new possibilities, now that the steady stream of newcomers has stopped. Our skills give us incredible leverage, to bring project management discipline to new industries and new parts of the economy. Despite the downturn, we can create new opportunities for ourselves.

This paper will provide a historical background for current trends in computing, including comparison to other, more mature, information-based industries. This background should help you decide whether to remain in IT. For those who wish to stay, the next section offers advice on prospering in the field. For those who are looking for alternatives, the final section offers advice on finding receptive employers and making a successful adjustment to non-IT employment.

Economics and Employment

Consultants and pundits present computer technology as an unprecedented economic force – as big a breakthrough as the printing press, and impossible to compare to any other modern development. Computers are not unprecedented, though. There have always been information-driven industries, and they offer useful clues to what IT can expect in upcoming years.

IT pundits often display graphs charting the amazing growth in computer usage, number of units, shipped, processor power, and so on. (Moore 2003) To believe that technological growth will continue and will lead to ever-increasing employment is both seductive and dangerous. Here is an overview of the growth of PC use and computer services employment for the United States:

![Graph showing growth of PC use and computer services employment]

Exhibit 1 Computer Employees vs. Computers in Use and PCs Shipped (Source US BLS, ITU, and Reimer)

The only declining measure on this graph is the employment in Computer Equipment industry, but that can be explained by an increasing reliance on off-shore manufacturing. The slight downswing in Computer Services
employment after the Internet bubble burst in the early 2000s can be explained as a “slight correction” that will be resolved. Computer technology seems to present unlimited growth and opportunity. Pundits often argue that there is no industry in the world like it. From 1990 to 2002, PCs in use went up almost four times, from around 50,000 to almost 200,000. This rate of growth seems unprecedented.

Other industries have experienced growth of the same magnitude, though. Telecommunications is a huge growth industry. The number of telephone lines and cellular phones has more than doubled in the U.S., from over 141 million in 1990 to over 326 million in 2003. Telecommunications employment statistics show a starkly different picture:

![Exhibit 2 Telecom Employment vs. Lines and Subscribers (Source US BLS and ITU)](chart)

From 1990 to 1996, number of lines grew from about 141 million to almost 210 million (almost 50% growth) but employment barely changed. After 2001, employment decreased, while the number of lines and subscribers steadily increased.

Over the long term, telecommunications displays the ebb and flow of a mature industry. In the late 50s, employment was around 800,000. Employment peaked at almost 1.1 million in 1980 and then declined slowly. It took almost 20 years, until 1999, to get back to 1.1 million employees, and employment is now sinking. (US BLS 2004)

Telecom offers a lesson and a warning for IT workers. At some point IT will fall into business cycles, with a normal ebb and flow of employment. Telecom was a new technology and a huge area of growth once. Now, even developments like the cellular phone cannot jump-start large, lasting employment growth.

Gold rush after gold rush has fed IT employment (McConnell 1999, 48):

- Growth of punch card machines in the 1940s
- Electronic computing in the 1950s
- Birth of the PC and DOS in the 1980s
Technology may provide another gold rush soon, but IT project managers need to prepare for the possibility that these changes will be less dramatic and less frequent. IT is maturing as an industry, and the current dip in employment is a first warning of that fact.

**Staying in Information Technology**

Some IT project managers may look at these trends and decide that even in a downturn, IT is still the industry for them. Some people love computer technology and are determined to stay in the industry.

For such project managers, the end of the gold rush might be a welcome change. The economics of the Internet boom favored young, inexperienced developers taking tremendous risks, creating unstable, half-baked products. “Hero-based” project management dominated, with little organization and control. (McConnell 1999, 49) Young people right out of school got tremendous salaries. Experienced programmers saw salaries increase, too, but little premium was paid for experience. Tremendous premium was paid for knowing the current, hot technology.

Standards like HTML, XML, and so on are going through much less rapid change now. Inexperienced programmers have more and more trouble finding work. Unfortunately, salaries for experienced programmers have barely moved since 2001, but salaries are commensurate with many other white-collar jobs. For the IT project manager, companies are asking for more maturity and discipline. Reliability and repeatability are back in favor. For an experienced, dedicated IT project manager, these can be good times. Rapid salary increase will no longer happen automatically, though. As the industry matures, IT project managers need a more mature way to manage their careers.

**Building IT Credentials**

Many IT project managers have earned the Project Management Professional (PMP®) credential, earning an important measure of their project management knowledge. That certification has opened doors to new jobs, raises, or promotions. As the number of PMPs increases, though, it will become less valuable. With more PMPs on the market, employers will ask, “What else do you offer?” A true professional will need to demonstrate commitment to the IT industry. IT has a large body of knowledge, and demonstrating mastery of it is one way to stand out as a true professional.

PMI worked to develop “Certificate of Added Qualification” (CAQ) programs in specific knowledge areas including IT Software and IT Networking. In 2003, PMI suspended the CAQ program (PMI June 2003). IT project managers must instead go outside the project management community for certification programs.

Some options to consider include:

- Degree-granting programs
- Certification programs from technology industry associations
- Certification programs from technology vendors and providers

**Degree-Granting Programs**

Many reputable schools now offer on-line and in-person graduate programs in IT management. Some of these programs are old and some recently developed. These programs often mix project management training with the metrics, life-cycles, and disciplines that are specific to computer software and hardware. A degree from a reputable program can demonstrate knowledge and dedication.

**Certification Programs from Technology Industry Associations**

Joining PMI and earning a PMP are powerful statements about career direction. Similar organizations and certifications exist in the computer fields. For example, the IEEE Computer Society has developed a Certified Software Development Professional (CSDP) program. Earning both a PMP and a CSDP certification would demonstrate not only deep knowledge of project management, but also software development.
Participating in these programs improves the depth and breadth of your knowledge, much like studying for a PMP does. The value of the certification is not just in the piece of paper at the end. For instance, the CSDP program relies on a Software Engineering Body of Knowledge (SWEBOK®) that is in many ways comparable to the PMI Guide to the Project Management Body of Knowledge (PMBOK®). Knowing and using standard terms can increase professionalism.

Certification Programs from Technology Vendors and Providers

Major technology vendors, including Microsoft, Sun, Cisco, and others, provide certification programs in their proprietary technologies. For some IT project managers, these programs may be appropriate for demonstrating clear competence in essential technology.

Choose the Right Option for You and Your Career

Certifications and degrees are not guarantees of success. Candidates should approach each program with a “buyer beware” approach. Research each program thoroughly and make sure that it provides a benefit that will help you with your personal career challenges. Also consider the lifetime value of each program. A master’s degree is far more expensive than a certification course in a specific software program, but it will probably be valuable for many more years. Some certification and degree programs teach principles that may last decades, while some technology certifications may be valid only a few months or years. Consider your options before committing time and money to a program.

Ask colleagues about different programs, to ensure that the programs you are considering have a good reputation in your peer group. If you hope to get promoted, ask people who are currently doing the job you hope to get when you are promoted.

Embrace Your Industry

Steve McConnell said, “During a gold rush, you can be terribly sloppy and not very skilled and still make a fortune (if you’re lucky). After a gold rush, you have to be more disciplined and more skilled just to break even.” (McConnell 1999, 53) If you want to stay in IT, keep rereading that quote until you are excited about the END of the gold rush. There are many advantages for a true professional:

- Sloppy, unskilled coworkers will leave the industry
- Increased competition will favor the most experienced, most professional workers
- Large-scale, long-term projects will get funded again
- Good business cases can win out, even over hot, new technology
- An end to training and retraining in new, buggy technologies
- Being paid in cash instead of stock options (which are potentially worthless)

Take advantage of the post-gold-rush time. Join a professional society with a code of ethics. Adopt more mature development practices. Read journals, magazines, and books about the profession. By embracing the industry, you can truly shine as a professional and find top-notch IT jobs, whether or not there is a gold rush.

Business-Oriented Project Management

Many IT project managers started and continue in IT for simple reasons: money and low unemployment. The economic changes since 2001 should cause them to rethink their career goals. IT cannot be counted on for easy employment and fast salary increases. The job market will increasingly favor the dedicated professionals that love the industry and invest time in their growth as IT professionals.

IT project managers have often developed cross-over skills that are valuable to any industry. Key factors make these skills valuable to many areas:

- Reputation for logical, structured, project-oriented work
- Value of controls, including Sarbanes-Oxley, physical security, data security, and so on
- Business transformation and business reengineering

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Originally published as a part of 2004 PMI Global Congress Proceedings – Anaheim, California
Pervasive impact of IT on all businesses

Construction has long been considered as a top industry for project management. I now hear more and more companies equate project management with IT and software development. Although business executives may not completely understand project management, they are often aware that the IT Department uses it regularly.

Many businesses run without the discipline of project management outside of their IT Departments. Marketing, Sales, Operations, Human Resources, and other areas often have little or no exposure to these techniques. These untapped markets represent an opportunity for top project managers.

Cross-Over to a New Industry

Many people joined IT thinking, “I would rather have been a <blank>, but there was no money in it.” Right now it a good time to consider pursuing that interest again. Leverage skills from hobbies, from school, and from other non-work interests. Think about other industries that might be more compelling than IT. Many IT people are currently working in the IT Department, and have learned much about their company’s non-IT, core business. Often it is possible to “join a new industry” simply by transferring to another department at a current employer.

Define Your Skills

Getting a new job in a different area requires a clear explanation of your top skills. Project management terms are commonly used in IT circles, but they need translation when speaking to non-IT people:

- “Earned Value” means “deliver clear, numerical reports showing progress” (bring pictures, if possible)
- “Scope Change Control” means “negotiating with everyone to make sure all our goals were met… and that no one tried to include something extra”
- “Requirements Documentation” means “writing down and getting agreement on exactly what we will deliver”
- “Prototyping and UI Design” means “working closely with the end-users to make sure the screens did exactly what they needed to and that everyone could understand how to use them easily”

Talking to non-IT people about skills and experience, it is easy to confuse people with acronyms and jargon. Translate these terms into clear explanations of what you did and what you achieved, and your meaning will become clear.

Certain skills are vital for any type of project management, and they have broad application in all industries:

- Clear written communication
- Clear verbal communication and presentations
- Running structured meetings
- Negotiating terms, conditions, and requirements
- Setting and meeting quality measures (not just testing at the end, but ensuring quality throughout)
- Setting up command-and-control structures to let people work independently while keeping control
- Maintaining and improving team morale
- Creating and executing structured plans for change
- Synthesizing complex recommendations into a comprehensive solution

By translating assignments and work experience into general business terms, your job may sound quite senior and important. At some companies, project managers exercise a degree of control and independence greater than some department or area managers. Emphasize key, high-level skills like communication, negotiation, and synthesis. All jobs involve a certain amount of administration and routine paperwork, but when crossing over to a new industry, focus on top-level skills.
Pursuing Opportunities
Because so many industries and disciplines have not yet embraced project management the way that IT has, the number of possibilities are virtually unlimited. With a well-considered list of interests and skills, you will be ready to look for opportunities. Sarbanes-Oxley and business reengineering have increased demand for organized, disciplined people to organize change in many industries. Even if the job is not called “project management”, you may be ideally suited for it.

IT has a mixed reputation. Some people may think of “IT” as disorganized, over-promising, under-delivering, buggy software developers. Almost everyone agrees that software demands a certain level of analysis and planning, though. Some will value project management skills especially highly because they were applied in an IT setting. No matter what, it is possible to turn your background into an asset. People who dislike IT can take courage in the fact that you want to get out; people who value IT will want your experience.

Remember that training can also fill in gaps in experience. For instance, if you want to pursue a discipline that you studied years ago in college, training can provide knowledge of more modern techniques and developments.

Personally, I have found the most exciting part of these opportunities is the process of bringing project management to a group or industry that has not traditionally used it. These opportunities offer tremendous professional growth and the chance to set up management and control systems without the burden of long-standing IT traditions.

What Is This New Opportunity?
Assuming you have been offered for a new job in a non-IT industry, there are some key questions to ask:

- Am I still a “project manager”?
- What does “project manager” mean now?
- How formal or informal is the environment?
- What is my authority?
- What new skills do I need?

It is possible that your new role may be called “project management” but not include the full scope of skills outlined in the PMBOK. It is also possible that your title may no longer reflect the project-management work that you perform.

IT companies and departments tend to be quite formal, analytical, and numerical in their approach to project management. Be prepared for a completely different approach. For instance, time sheets may be standard in IT, but unheard of in your new environment.

Many companies give a tremendous amount of responsibility to project managers, and a significant amount of authority. Beware – other companies may use the title “project manager” to describe someone more like a “project assistant.” It is important to know whether your role will be administrator or decision-making negotiator.

Finally, the new opportunity may require new skills. In some IT departments, budgets are hidden from all but the most senior managers. In others, IT managers only budget for expenses and costs. Outside IT, a full budget may include income projections, revenue, and possibly service metrics. You may find unfamiliar terms, definitions, and techniques used in the new environment. Get books, friends, and coworkers to help you through the new challenges. Remember to enjoy these challenges; learning new skills is a tremendous benefit of a career change.

Differences Between IT- and Business-Oriented Project Management
Making the switch from IT-oriented to business-oriented project managed, keep in mind one thing:

Be ready for anything
Sometimes, you will have the privilege of introducing project management from scratch. Other times, you will be changing an already-broken system for project management. You may be lucky enough to join a group of project managers in an established, working practice.

It is critical to remember that some of what you consider “project management” is really “IT project management”. Many software organizations have a standard work breakdown structure (WBS) with every project having the same top-level items, such as “Plan – Design – Code – Test – Deploy.” It is tempting to translate every business project into that same model. It is possible to force a business project into that mold, especially for creative projects like writing a business plan or developing a new product. Forcing an IT lifecycle onto a business process often means a loss of clarity. The WBS should instead reflect the standard business processes for the company, and the deliverables of the project. A sample business plan WBS might instead consist of “Plan – Current State – Future State – Economic Forecast – Integration – Publication.” Some of these phases are a little like design, code, test, and deploy, but business-oriented language makes the WBS far more relevant.

Personally, I found myself challenging many assumptions about project management after moving into a business role. For instance, in my current job we discussed implementing a time sheet system for all projects. It would provide some data and some benefits, and it seemed natural – every IT organization I had ever worked with had some form of time sheet. After weighing the benefits and costs, though, we realized that it was one of the least valuable changes we could make, and it was not worth the organizational resistance we would have faced. At this same job, we have developed a mature, defined method to review and approve new project opportunities, something which was completely ad-hoc and informal at my previous IT employers. Be prepared to challenge preconceptions about “must have” tools and the “normal order” of progression to process maturity.

PMI standards can be extremely valuable in these situations. PMBOK, the Practice Standard for Work Breakdown Structures, and the OPM3 all give cross-industry perspectives on project management terms, problems, and solutions. When in doubt, reread these documents. They will take on new meaning as your experience broadens to include new industries. Adopting the standard terms and definitions in these references will also help you communicate clearly. These references will help separate the IT jargon from the project management jargon, and provide solid references for project management topics.

It is important to remember that IT will never be gone. Every industry today involves computers and automation in some way. Some business processes are dominated by information technology now, where every single business project will involve IT change. As a former IT professional, you can bring a unique perspective to those difficult projects. IT and business people often have trouble communicating and negotiating effectively. You are in a unique position to bridge that gap and to be seen as a friend to both sides.

Conclusion

It is inevitable that employment growth in the computing profession must someday level off. If it did not, then eventually every employee would be a computer professional. Since the Internet boom ended, there are indications that the “gold rush” cycle in IT may be over now.

True professionals should greet that news with joy. Professional IT project managers have new opportunities to distinguish themselves. The least skilled, least motivated workers will no longer be motivated to work in IT, and there is hope for an increase in disciplined, mature practices. IT project managers who do not wish to remain in IT now have a wealth of options. Many industries use project management infrequently or not at all. Sometimes even staying in the same company, it is possible to move to a business-oriented role. These career changes open new opportunities and challenges.

Some people will see the changes in the IT economy as a hallway full of closing doors and lost opportunities. True IT professionals can still find ways to unlock those doors, and the rest should look in other hallways. In other industries there are plenty of open doors for a skilled project manager.

References


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