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Avoiding Project Failure

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Introduction

If business projects are part of your profession, you know that many projects fail to live up to their potential. Some projects fail to achieve their schedule or budget goals or fail to deliver everything initially promised. Still other projects simply fail altogether. Many of the problems faced by projects can be avoided, or at least contained, by effective project management practices. Using a "Top Ten" list as a framework, this article highlights 10 of the most frequent reasons for project failure, and examines some alternatives and remedies for each.

Top Ten Statements suggesting a Project is in trouble

1. **"This project is too important to fail."**

    Often the response to concerns expressed about some important part of the project, this statement generally sends the message that "negative thinking" is unacceptable - Get over it… Any project, no matter how important, can fail.

    Probably the single most dangerous project management attitude is one that denies failure is a possibility. Identifying project problems early and working to address them increases the likelihood of project success.

    Team members must be encouraged to voice issues and concerns, not reprimanded for "negative thinking".

2. **"Everyone knows that this budget is unrealistic, just don't tell the sponsor."**

    A project is not a project unless it has a "sponsor" or "client", a person who funding the effort and ultimately believes that the value of a project is worth the cost. Sometimes a misguided project manager or team leader comes to believe that he or she is a better judge of the client's needs or what is justified than the client. When this occurs, the frequent result is new information suggesting that the initial budget cannot be achieved is ignored or suppressed to avoid "upsetting the sponsor." This goes beyond misguided to unethical if you put yourself in the sponsor's shoes:

    Imagine that you provide a contractor with detailed blueprints for your dream house, a plot of land, and a fixed budget that you both agree to at the beginning of the construction project (your entire life's savings). Three months into the project, the contractor realizes that there isn't enough money to complete the project… When do you want to know? As soon as possible! You won't be happy, but you need timely information to deal with the situation. Spending all of your money for half of a house denies you the chance to make informed decisions about reducing the scope of the house or postponing parts of the construction, or perhaps canceling the project to cut your losses.

Good project managers remember that the project belongs to the sponsor.

3. **"This is going to be a real stretch and lots of long hours over the next year, but if we work hard enough we might pull it off."**
   This is really related to statement number 2 (unrealistic budget), although it sounds like the person speaking, usually the project manager, is not admitting to him or herself that there really isn't enough resource or time allocated to get the work done (this is called "being in denial").   This statement usually precedes confusion and overtime, is usually followed by frustration and blaming, and almost never followed by a successful project. As a rule, if a credible schedule can't be developed at the start of a project with the staff assigned working full time, it's pretty safe to say that the project will not be accomplished on time and within budget. Planning on "Going to the whip" and over-committing the project team from the start of the project almost always leads to one or more of the following:
   - Morale Problems
   - Personnel Turnover
   - Failure to achieve the goals of the project as scheduled, scoped and staffed

   If credible project plans cannot be constructed that suggest the project is feasible within the schedule and budget allocated, this issue should be addressed with the sponsor.

4. **"Aaarg! The Network is down again!"**
   O.K., we have all heard this, or something similar ("the copy machine is broken", "the truck won't start", "the parts aren't in stock", etc.) from time to time… Murphy is an honorary member of every project team. The point is that project teams require tools and support to do their work efficiently and effectively. The tools may consist of hardware or equipment and support may be composed of the people needed to maintain those tools and assist the team with their use. If the tools and support are an afterthought, or insufficient resources are allocated to provide them, the project is in trouble. Most project plans make unrealistic assumptions about the productivity of the project team from the beginning. Productivity rapidly drops to zero when necessary tools and support are unavailable or unreliable.

   Project budgets should include procurement and support of the infrastructure required to perform project work.

5. **"We can fix that during the next phase of the effort..."**
   Hearing this is usually a sign that the schedule is in trouble, and that someone is about to declare a phase of the project "complete", whether it is complete or not. Consider also the word "fix" which suggests that something is broken. While there are occasions when it might be prudent to delay correcting defects immediately, it isn't prudent nearly as often as it is suggested. Common sense tells us that it is cheaper and faster to fix an error in the blueprint with a pencil than to move a misplaced foundation with a jackhammer. Delay in fixing obvious problems is frequently short sighted, since the correction will usually take more time and resources later, and may affect the

quality of the final product. Typically, after you hear this phrase several times on a project, the team will usually begin to reply under their breath "There is never time to do it right, but always time to do it twice." This response speaks volumes about the morale problems and lack of cohesiveness that this tactic can create on a project along with schedule and cost overruns.

Project phase checkpoints should be defined in terms of clear and unambiguous completion criteria that measure the quality of the work products created against an objective standard.

6. **"Have they found a replacement for the Project Manager yet?"**
   This can suggest disaster for several reasons:
   First, good project managers are hard to find, but instrumental to project success. The project manager is like a pilot - steering the effort toward completion. If the project manager is missing, who is flying the plane? The project manager should have a back-up ready to keep things on course should the project manager be hit by a truck, win the lottery, or (heaven forbid) simply get sick and miss a week or two. No significant amount of time should pass on a project without a Project Manager at the helm.
   A second consideration when the project manager is missing is "Why?". When a project is in trouble, the project manager is usually one of the first to know. If the project manager doesn't have the skills or can't get the support from the sponsor to resolve the situation, he or she will sometimes strap on a parachute and jump. Whenever a project loses a project manager in the middle, it's reasonable to worry about his or her motivation for leaving.
   Finally, if team members feel they have to periodically ASK if there is a project manager, it suggests pretty terrible project communication.

Projects should <u>always</u> have a designated project manager. The identity, role and responsibilities of this person should be clear and unambiguous to the project team.

7. **"Here's the last spec we published, but you must understand this is an evolutionary process... the spec will never be completely up-to-date."**
   This one can seem subtle to some people, but it can suggest a real problem if you think about it. Most projects (high tech, low tech, no tech) end up discovering omissions and errors as they go forward. These must be addressed as they are detected... it is silly to assume that <u>everything</u> can be anticipated. The problem suggested by this phrase is that it appears our speaker has given up TRYING to do define the end product up front, or keep the specification current. When we stop trying to build and maintain reliable specifications or descriptions of our work products, we lose control over the definition of the final products and the costs and schedule required to build them.

There should always be written agreements about what is being built and everyone on the project should know how to obtain the latest "official" version of a specification. Definitions and agreements will evolve, so there must be a version control process to support this evolution.

8. **"We've really been in a crunch till now, but I think this new [tool, method, person] will get us caught up."**

This statement suggests what is called "magical thinking". With the right magical ingredient, everything will be all right.

Project managers whose projects are behind and would rather believe in magic than face the facts frequently fall prey to consultants or tool vendors who offer enticingly easy answers to difficult problems. Unfortunately, someone occasionally finds a tool or expert or method that seems to save the day for a project, which propagates the myth that there is a tool/method/expert that will save any project if you look hard enough. If you can't describe a credible way to accomplish the project with existing tools, methods, and people – This is a priority risk item that should not be wished away by pointing to a brochure for a product or service with which the team has no experience.

When projects have been in "crunch" mode for an extended period, what is needed is not a "magical cure" but probably a more mundane review of the current schedule and resource plans and constraints, a review of the work products that are being produced, and an evaluation of the trade-offs that might make sense given the experience to date.

Careful evaluation of the current plans and creation of more realistic plans is not as exciting as the miracle cure, but it is almost always more reliable.

9. **"I thought we all agreed to change that!"**

It is essential to define a project's goals up front. Once defined, it is important to track and communicate changes to the definition in a systematic way. This is called "Change control" or "Change Management".

When done poorly, change control is a bureaucratic waste of time.

When it is not done at all, projects rarely deliver what was agreed to, and often require more resources and time than should have been needed in the first place due to the amount of rework that is required to get things to come together. Satisfaction with the end product can also be problematic, because there will probably be several conflicting views about what the end product was supposed to be.

When change control is done well, proposed changes to the project's work products are evaluated for overall impact to the project's schedule, scope and resources. If a change is approved, it is clearly and quickly communicated to the team to minimize rework.

Effective change management is essential to project success.

10. **"Two months! That task can't possibly take two months! I'll estimate five weeks will be enough."**

Have you ever noticed the paradox suggested when a project manager says, "Mary, you are the best qualified specialist I have for this part of the work. Give me your best estimate regarding how long it will take." Then in the next breath, argues with the answer?

While some of this is due to the limited training most people have regarding how to build and validate estimates. Much of it goes back to magical thinking. We would all like to think that just saying something makes it true, unfortunately this is rarely the case. Second-guessing estimates is frequently one of the most destructive things that a project manager can do, because it undermines the commitment of the team and the credibility of the schedule.

The people doing the work must be involved in the creation of estimates for their work. If the people doing the work don't believe in the estimates, estimates become just numbers and dates on paper and will have little bearing on performance or reality.

This is NOT to say that it is not reasonable to discuss the rationale of estimates with the estimators. It should always be reasonable to say:

"Mary, let's talk about the scope of the work as you see it to make sure we both understand and agree what must be done."

"Mary, let's review your assumptions about the resources required to do this work, are there any additional resources I could obtain that would help you do the job more quickly?"

"Mary, what assumptions are you making about the work that are driving your estimates? Let's make sure we agree on the environment in which the work will be done and the resources available."

The final say needs to rest with the person you trust to do the work, or else what you are saying is that you don't trust them to do the work... so you must have the wrong person!

Estimates should be made by people competent to perform the work.

Summary

If you must fail, try to find a new and creative way to fail. Don't fall prey to these clichés.

Defining, planning and managing business projects takes project management skills that require time to learn, and practice to master. It isn't hard to fail... failure is easy. Remember that most projects involve creation of a product or service, and creation is always a difficult task because it involves trying to predict the future and manage to that prediction. The key to success is to realize that your predictions will not always be right, and to deal with reality as it unfolds. There is an old Scandinavian proverb that says: "When the terrain and your map disagree, believe the terrain!" Effective project management avoids or minimizes most of the situations described above by encouraging effective and timely communication, acknowledging that plans are educated guesses about the future that will not always be correct, and trying to work with the project team to deal with reality as it is revealed rather than trying to deny it as long as possible.

Bibliography

Brooks, Fred. *The Mythical Man-Month*
Addison Wesley, 1975

Catalysis Group, Inc. *The Top Ten Reasons Why Project Fail*
www.catalysisgroup.com, 1999

DeMarco, Tom. *The Deadline*
Dorsett House, 1997

McConnell, Steve. *Software Project Survival Guide*
Microsoft Press, 1998

Standish Group, International. *The Chaos Report*
www.standishgroup.com, 1995

Weinberg, Gerald. *Quality Software Management: Volume 1 – Systems Thinking*.
Dorsett House, 1991

Weinberg, Gerald. *Quality Software Management: Volume 4 – Anticipating Change*.
Dorsett House, 1997