

The Standish Group

Sample Research Papers -

Unfinished Voyages I

Cobb's Paradox:

"We know why projects fail, we know how to prevent their failure -- so why do they still fail?"

Martin Cobb Treasury Board of Canada Secretariat

Ottawa, Canada

Introduction

Off the coast of the eastern seaboard in 1906 there were 177 shipwrecks. These shipwrecks were caused by accidents, bad management, carelessness, errors in judgment, and pilot errors --all of which can be attributed to human (as opposed to technological) failings. So too were the results of The Standish Group report on development project failures.

From November 6th through the 9th, 1995, The Standish Group held CHAOS University in Chatham, Massachusetts. CHAOS University was a follow-up to the CHAOS study published in January 1995. The Standish Group estimates that almost 80,000 projects were cancelled in 1995. While The Standish Group identified the ten main causes of these failures (along with possible solutions), it was unclear whether these solutions could be implemented. In response to this and by invitation only, CHAOS University brought together 60 IT professionals for the purpose of digging down to create two additional levels of detail in the implementation of the success factors.

Achieving the answers to solving project failure often lies in developing written communication such as problem statements, project plans, and detail specifications. However, one of the problems with any written communication is the participant's (reader's) level of understanding. As technologists, we think, write, and talk in a manner that is not readily grasped by many people outside our industry. Aside from sounding intimidating, you run the danger of the reader actually thinking they understand what you are saying, while your meaning may in fact be entirely different. To paraphrase the words of the English poet, Samuel Taylor Coleridge "Until you understand a reader's ignorance, presume yourself ignorant of his understanding". In other words, write the document devoid of all technical terms and pseudo technical terms. This includes words used by our industry, but rarely used outside our industry. Words like paradigm, metric, abstraction, and orthogonal, should not be used in any document if you want the normal reader to understand. Remember it is your job make the reader understand the plan. It is not your job to show how smart you are or to demonstrate that you can use big words.

At CHAOS University Martin Cobb, Treasury Board of Canada Secretariat, Ottawa, Canada outlined his paradox: *"We know why projects fail, we know how to prevent their failure - so why do they still fail?"* Throughout the next year via both magazine articles and our home page (www.standishgroup.com), Standish will explore the next level of detail and work to solve the mystery of Cobb's paradox.

The CHAOS Report surveyed IT executive managers. For the purposes of project comparison, The Standish Group used the project success criteria from the surveyed IT managers to create a success potential chart. The success criteria were then weighted based on the input from the surveyed IT managers. The most important criteria, "user involvement", was given 19 success points while the least important, "hard-working, focused staff" was given 3 success points. The table below lists the criterion in order of importance with their appropriate success points.

SUCCESS CRITERIA POINTS

1. User Involvement -19
2. Executive Management Support -16
3. Clear Statement of Requirements -15
4. Proper Planning -11
5. Realistic Expectations -10
6. Smaller Project Milestones -9
7. Competent Staff - 8
8. Ownership - 6
9. Clear Vision & Objectives - 3
10. Hard-Working, Focused Staff - 3
- TOTAL 100

CHAOS University attendees broke down each success criteria into another level of detail. Attendees of CHAOS University were asked to problem solve and come up with five positive ways to achieve each of the success criteria. As you read the five reasons, consider whether or not you have considered them in a real project. After each explanation of the five positives, they are listed again in question form. Ask yourself each question with a specific project in mind and allot yourself the number of points specified for each YES answer. After reading all ten success criterion and the positive ways to achieve them, you should be able to calculate a score which can be a maximum of 100 and a minimum of 0. This number represents your project's success potential.

PROJECT SUCCESS POTENTIAL

In this COMPASS Report we look at the first level of detail.

USER INVOLVEMENT:

First, find the right user or users. Look for users up and down the organization. Second, involve the user (or users) early and often. Third, establish a quality relationship with the user(s) by keeping open lines of communication throughout the life of the project. Fourth, make it easy for them to be involved in the project. Last, but not least, talk to them and find out what they need. After all, the only reason the project exists in the first place is because someone needs to use the business application when it is finished.

- Do I have the right user(s)?
- Did I involve the user(s) early and often? Do I have a quality user(s) relationship? Do I make involvement easy?
- Did I find out what the user(s) needs?

For each question with a YES answer, add 3.8 points to the total project success potential score.

Total Points (not to exceed 19)

EXECUTIVE MANAGEMENT SUPPORT:

First, find a key executive with a vested interest in the successful outcome of the project. Second, the key executive must have a bottom line responsibility to his/her personal career. Third, the consequence of failure is acceptable. Fourth, show the key executive a well-defined plan. Fifth and final, show the project team has a stake in the project's success. In addition, allow for continuous communication with the key executive in all aspects of the project as it moves through its life cycle.

- Do I have the key executive(s)?
- Does the key executive have a stake in the outcome? Is failure acceptable?
- Do I have a well defined plan?
- Does the project team have a stake?

For each question with a YES answer, add 3.2 points to the total project success potential score.

Total Points (not to exceed 16)

DEVELOPING CLEAR STATEMENT OF REQUIREMENTS:

First, write a concise definition of the vision in the short-term, the mid-term and the long-term. Second, write a functional cross-section analysis and allow for re-iteration. Third, develop a functional risk assessment and management document. Develop a business case statement outlining return on investment. Finally, define metrics, measurements, and milestones to determine success and/or the completion of the project. Additionally, define what is not to be included in the project.

- Do I have a concise vision?
- Do I have a functional analysis? Do I have a risk assessment? Do I have a business case?
- Can I measure the project?

For each question with a YES answer, add 3 points to the total project success potential score. Total Points (not to exceed 15)

PROPER PLANNING:

First, develop a brief formal problem or concept statement. This document should include a statement describing the problem and the resulting benefit to the organization if the problem is solved. Second write a requirements definition or concept solution document. This document is not the full specifications report, but outlines possible solutions to the problem. Third, identify the proper personnel. In this regard, name names and let these people know what their role is in the project. Have a firm start date and require the personnel to be available on that date. Develop a firm functional specification. Do not let this document promote scope creep, however it should allow for changing business requirements. Finally, develop a project plan with attainable milestones and prioritization. One of the attendees said that users want so much out of their projects it is like "prioritizing an avalanche."

- Do I have a problem statement? Do I have a solution statement? Do I have the right people?
- Do I have a firm specification?
- Do I have attainable milestones?

For each question with a YES answer, add 2.2 points to the total project success potential score.

Total Points (not to exceed 11)

SETTING REALISTIC EXPECTATIONS:

First, write a firm and clear specification document outlining a project that is attainable. You need to take the time to write this document. To invoke the old saying "If you fail to plan ... then plan to fail." Second, prioritize project needs. Eliminate most of the features that are "wanted" or "nice to have". One of the attendees said that when a user insists on wanting too much she just nods, knowing she will deliver what she can. We need to be clearer and sometimes braver, concentrating on and delivering only features that are required. Third, develop smaller project milestones. Fourth, provide for change and manage the change. Fifth, prototype the project.

- Do I have clear specifications?
- Do I have prioritization of needs? Do I have small milestones? Can I manage change? .
Can I prototype?

For each question with a YES answer, add 2 points to the total project success potential score. Total Points (not to exceed 10)

SMALL PROJECT MILESTONES:

In the majority of cases, 20% of a project's features will provide 80% of user benefits. The first thing is to concentrate on the twenty percent. Second, create a top-down design by understanding the "big picture" and breaking the project into manageable parts. Third, set a time limit on project milestones and deliver what is completed in that time limit. Fourth, use prototyping tools. Fifth, measure, quantify and account for the results.

- Am I using the 80/20 rule?
- Am I using a top-down design? Am I setting time limits?
- Am I using a prototype tool?
- Can I measure progress?

for each question with a YES answer, add 1.8 points to the total project success potential score. Total Points (not to exceed 9)

COMPETENT STAFF:

First, identify the skills required; such as an understanding of the business, leadership experience, and technical knowledge. Second, recruit appropriately skilled people from both inside and out of the company. Third, develop a well-structured and continuous training program. Fourth, provide and present incentives such as career advancement, skill expansion, and of course money, either in the form of bonuses and/or raises. Such incentives will insure the staff will be focused on the project and willing to see it through to the end.

- Do I know the skills required? Do I have the right people?
- Do I have a training program? Do I have incentives?
- Will the staff see it through?

For each question with a YES answer, add 1.6 points to the total project success potential score. Total Points (not to exceed 8)

PROJECT OWNERSHIP:

First, clearly define roles and responsibilities for each member of the project team. Second, define an organizational model which supports the above accountability. Third, communicate the defined roles throughout the corporation. Fourth, tie incentives to the project's success. Finally, get commitments from each project participant, including users and key executives.

- Do I have defined roles?
- Do I have a defined organization? Does everyone know their role?
- Are incentives attached to success? Is everyone committed?

For each question with a YES answer, add 1.2 points to the total project success potential score.
Total Points (not to exceed 6)

CLEAR VISION AND OBJECTIVES:

First, share the vision with all people and groups affected by the project. Second, be sure the objectives align with corporate goals. Third, make sure the objectives are achievable. Fourth, create measurable goals. Finally, install honest and continuous sanity checks.

- Is the vision shared?
- Is the vision aligned with company goals? Are the objectives achievable?
- Are the objectives measurable?
- Do I have honest sanity checks?

For each question with a YES answer, add 0.6 points to the total project success potential score.
Total Points (not to exceed 3)

HARD WORKING, FOCUSED STAFF:

First, provide incentives for the staff such bonuses, raises or promotions. Second, have the staff concentrate on quantifiable deliverables. Third, convey to each individual that they have part ownership in the project. Fourth, communicate that each individual has a role, which is inclusive of functioning as a team. Build a team that works well together. Finally, a proper plan with attainable results and milestones will build confidence in the staff and keep them focused.

- Are there incentives?
- Are we concentrating on quantifiable deliverables? Does each member have part ownership? Does everyone work together? Are we building confidence?

For each question with a YES answer, add 0.6 points to the total project success potential score.
Total Points (not to exceed 3)

Calculate all of the points to achieve the final score.
The Success Potential for Project is _____

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