

# **Project Management Challenges of Web Design Teams**

**Amy A. Secrest, Purdue University**

**Kevin C. Dittman, Purdue University**

## **Introduction/Abstract**

The importance of branding, metamarkets, web presence, and technological innovation has become a key factor of success in today's business model. Information Technology (IT) project managers are tasked to ensure that these innovations are successful and add value to the final product. But IT project managers face many other challenges in their field. Few of those compare to the challenge of managing a web design team whose members include traditional analysts and programmers as well as the creative, diverse individuals. Trying to manage the creative geniuses is not the only issue the IT project manager faces, the creative process must be protected and defended too. With corporate big brother keeping an eye on its cultural standards and procedures, the creative process must somehow fit into the mold. In today's modern information age office, traditional work practices are starting to disappear. Technology is playing a huge role in where, how, when, and who we work with. The advancing technology is what the IT project manager must remain on top of and they must make decisions regarding which technologies the corporation will utilize and how to most effectively train the team members in these technologies. These challenges may be overwhelming at times, but fortunately there are best practices dealing with these issues that have resulted in success.

The main business focus for companies has been innovation. Project management for creative groups means taking most of what is known about management and incorporating a personal spin. The best ideas for promoting and sustaining creativity involve the innovation of past standards. Managing for innovation often means shifting the traditional, rational approaches 180 degrees.

## **The Challenges**

### **IT project managers**

For any IT project manager who has ever led a group of individuals, it's apparent how hard it is to get a number of diverse people to come together. This is especially true when managing web teams, where an IT project manager must coordinate between highly technical programmers and visually creative designers. To be effective, an IT project manager has to be aware of the differences in knowledge, personality, and style exhibited by each member of the group. IT project managers have to know how to get everyone to work together and do his or her part to complete the project, all while making sure they don't kill each other in the process.

At this point, no one has twenty years experience managing diverse web teams, because web teams haven't been around for twenty years. IT project managers must draw from their past work group experiences as well as lessons learned from their peers in the industry to tailor new plans of action that are suited for project teams of the information age. These experiences are derived from observations, perceptions, project successes, and project failures. A web team IT project manager must combine traditional methods with new practices and theories.

IT project managers of web teams inherit tough assignments and projects. Those projects may include developing a new web interface to boost web hits, better online accessibility or increased online sales. This is a big task because there is more than one way to make these projects successful. The key is to analyze the project and build an efficient work breakdown structure to complete the tasks within the project. IT project managers spend a lot of time on corralling the different personalities that tend to surface in web teams and in the organization. Project managers are the buffer zone, keeping a handle on the situation. (SooHoo 2000) The project management challenge is to expand the possibilities of what a creative team member may do, not constrain them. So IT project managers are sometimes at the end of a double-edged sword.

### **Creative Individuals**

Creative individuals have always been received and viewed in a bittersweet spotlight. The end product can be loved or hated, by many or few. Creative individuals are credited as being genius or clueless. They are perceived as difficult, out of control, disorganized, headstrong, going against the grain, or in their own world. Truth of the matter, many of those perceptions are the result of the products creative individuals produce. Those products are subjective and interpretive products of the art world. Examples may include concepts, sketches, graphic components, layouts, web pages, and interfaces. The training and expertise that these creative designers possess is what the customer or client lacks. It evolves into a gap of misunderstanding of color, design, layout, and

communication between the project team and the customer requesting the product. Creative teams experience problems, like any project team, but non-creative people may not understand the problems. Creative individuals have a gift of visual interpretation that many people don't have or understand. In addition many of these creative individuals are just entering the workforce or have minimal experience. IT managers hire these individuals to bring in the web design skills that are taught in schools today that their organization sorely lacks. This younger generation employee was brought up in a time in which the values, work ethics, motivational factors, and the concept of company loyalty is different now than it was ten to fifteen years ago. The IT project manager must understand this human behavior paradigm shift and be able to manage it successfully.

To direct the creative talents of their employees, the IT project manager needs to first appreciate the source of the differences. Creative talents and the creative results they produce are extensively shaped by the ways individuals see problems, generate alternatives, and determine solutions. Using the work of psychologist Carl G. Jung, eight creative talents are defined that produce different creative results and distinct contributions. (Levesque 2001)

<b>Talent</b>	<b>Definition</b>
Adventurer	Creative, experiments with clever and practical solutions to problems, flexible, curious, crisis solver
Navigator	Focuses on facts and details, builds on proven techniques while adding their own spin
Explorer	Enthusiastic, idea generator, searches beyond the accepted and expected solutions
Visionary	Through thoughtful, bold questions builds multiple connections while providing foresight to the team to uncover new possibilities
Pilot	Strategic plans to improve design and performance, effectively channels efforts for results
Inventor	Creatively builds theories and models to analyze problems while searching for unusual solutions
Harmonizer	Focuses on group dynamics that will bring out the team's creativity
Poet	Encourages reflection and articulation from the group and builds a safe place for new ideas

Jung's theory states there are predictable differences in individuals. The way people prefer to use their minds shapes which talent they fall under. Creative flair and results are formed by the individual's viewpoints, perceptions, and rationale. Jung's talents can be used to capture the creative talents of the group. An IT project manager who is aware of these biases can have a better understanding of the individual's perspectives and enhance relationships. Recognizing and using the differences constructively will benefit the project manager and the team. For example, IT project managers can assign work tasks that will best utilize the individual's talent, or use their talent as a predictor for what role the individual may play within the project. Benefits include retaining good team players and achieving a better group dynamic by keeping the team in balance.

### **Creative Process/Environment**

The IT project manager must guard the project group and the creative processes. Project management at the intersection of art and commerce means translating the language of art into the language of the corporation. Many, if not most of the customers don't or won't understand the art process. The customers and corporations are concerned with final product and final price, not the evolution of how the team got there and added cost on the project. Loeb (1995) states, companies are focused on the more routine work of making money right now from tried and true products, services, and business models. The practices that are well suited for cashing in on old, proven ways are drastically different from those needed for innovation.

Companies choke when estimates are given on projects involving the creative process. This reluctance exposes their misunderstanding and confusion of the true value of services the team is providing. For example, art and design development and revision may be questioned versus the acceptance of code revision to enhance the functionality of a program. It is difficult for a non-creative person to understand how an idea is evolved to final piece of art. It is much easier to accept a hard and finite change or upgrade to line of code, which falls into the world of mathematics, science and standards. Most of what the corporate world understands is black and white. Art and creation doesn't quite fit into that scenario, it's in the gray area.

The "rules" which govern corporate culture make sense in an industrial economy, but this is the information age. IT project managers need to know how to get the best out of all of their employees, while abiding by and fitting into corporate culture. Teamwork in the information age requires flexibility from everyone, including

the corporation. Teams build and enhance creativity. Creativity can't be measured, so it may be hard for corporations to understand creativity and its potential benefits.

## Technology

The biggest difference in today's modern office compared to one ten years ago is that people are more spread out, which can strain the productivity and creativity of the team. Prior work teams and workgroups have been nurtured in the office or department in one geographic location. Now a team member may be in Tempe, another in Mesa, while the branch office is in Phoenix and corporate is in Los Angeles. It is quite normal to have at least one team member on the road or working from home at any given time. Teleworking and telecommuting are playing a role in web teams all across the world. This new generation of workers is not only working creatively, but living creatively also.

Contractors are used to fill the gaps for a wide variety of projects. New projects may require new skills not present in the existing team. One issue that IT project managers need to take into account is the drop in morale that may occur when contractors come onboard. Companies are able to build a workforce around their project schedules; more people are needed in development than in post-development rollout. However, contractors come at a price. In return for specialized expertise and flexible scheduling, companies may have to pay contractors as much as twice the hourly wage of full-time staff members. Many IT project managers believe that the benefits are well worth the premium. Although in a direct sense, the budget is negatively impacted by their high rates, it is the price for getting things done when you need them done. This effect is positive, especially when compared to the consequences of not getting a project done on time. Contractors are used for a wide variety of projects, with current hot areas being web development, Java programming, and advanced communications. Companies rely on contractors primarily for special skill sets or projects. The key is to balance the core project team with the contractors, making sure to emphasize the importance of the permanent creative team and justify their value to the organization. (DeVoe 1999)

Training and updating the web team is a huge project management challenge. The new technologies require specific skill sets that are often needed well before internal training can be completed. The erratic flow of project schedules can also make as-needed hiring of contractors very attractive. An IT project manager's decisions on the who, what, when, and how of training can be a nightmare. New technology implementation and employee empowerment can be difficult for any IT project manager. As companies incorporate the use of new technologies, IT project managers are continually seeking new ways of structuring teams and strategies. Compounding the challenge of being an effective IT project manager, most individuals will try to resist change.

## What is Working

### Creative Individuals

IT project managers must know how to manage and encourage the team. Some of the best practices to manage and interact with creative teams are proven and transferred from pre-information age traditional work groups. There are four action steps an IT project manager can do to encourage and enhance creativity in web teams which are summarized in the following table. (Levesque 2001)

Step	Advantage
Step 1 -Personal Assessment	Honestly identify talents and define personal action plan for overcoming obstacles and weaknesses and learn how to rely more on the project team, resulting in a more in-tune project management style
Step 2 -Evaluate Team	Focusing on strengths allows team to create synergy and deal with their weaknesses, while restructuring, cross training, and mentor opportunities prevail
Step 3 - Prepare for Issues	Proactively plan for issues like group dynamic patterns, and how to deal with individuals based on assessment of the team
Step 4 - Build Environment	Create a structure and culture that supports the talents and enables the team to reach their potential, taking advantage of creative differences and achieve breakthrough performance

Following this step-by-step framework gives the project manager a proven, repeatable, process to effectively manage creative teams and promote group dynamics. Building cohesive teams is crucial for project success.

One proven technique project managers can use to evaluate individual team members is the Myers-Briggs Type Indicator test. This test is highly reliable in classifying a wide range of traits and personality types that have real implications for how an individual and the project team are managed. It can also help project managers develop an awareness of negative biases they may hold towards others whose preferences are opposite to their own. By understanding psychological type, project managers can move beyond frustration to acceptance. Once acceptance is reached, project managers are in a position to effectively utilize individual differences in a constructive manner.

### **Creative Process/Environment**

Project managers serve as buffers not only to the team, but also to the processes and standards used within the group. There are six steps recommended by Govendo (2001) to maximize the effectiveness of group creativity sessions.

<b>Step</b>	<b>Advantage</b>
Step 1 - Create Safe Haven	The creative individual will feel safe exploring unfamiliar territory, testing new concepts and possibly failing
Step 2 - State Objectives	Having a clear purpose and sound rationale serves as a touchstone and encourages the team to be experimental
Step 3 - Cross-pollinate Group	Ideation works best when there are differences in perspective, knowledge, and background, the greater the perspectives, the greater the range of potential solutions
Step 4 - Facilitate	Keep the process moving, preserve the best ideas, while encouraging and protecting potential breakthrough ideas
Step 5 - Support the Team	Recognizing and encouraging the efforts of team members who generate and develop ideas, even when those ideas aren't utilized or fail, will contribute again
Step 6 - Communication Follow-through	When sessions are concluded with a set of action items, lessons learned, and innovations, it keeps the creative process in motion

These guidelines provide a framework that gives the project manager the power to maximize group creativity effectiveness and harness the power of the team's imagination. This process will increase creative interaction and keep the team in perpetual motion.

### **Technology**

The best practices for the modern office are to use the tools that are available. That modern technology may be instant messaging, email, wireless communication, etc. Since everyone may not be in the office, or if there is an after hours concern or idea, these are great forms of communication. Creativity can't always wait until the next business day; some teams discuss, develop and design outside of the office. (Solomon 2001)

On the other hand, IT project managers and the teams have to be careful about relying on those tools too much. Sometimes the best answer is to pick up the phone and talk to the person or speak to them face to face. It's easy to have more misunderstandings through email and instant messaging than on the phone or in person. Sometimes misunderstandings are brewing, and IT project managers don't realize it until there are issues and someone is upset. Meeting with the team once a week or on a regular basis where you can work face-to-face is a crucial necessity.

Contractor relations influence team dynamics and production. IT project managers must evaluate the team structure effects on a case-by-case basis. The sharing of knowledge (set up, special software, new discoveries) on the projects is a necessity. The main goal of the IT project manager is to get the piece of the project completed, whether it's by a contractor or a team member. The IT project manager must keep the best interest of the web team in mind and create a good environment for all the workers.

How IT project managers understand, implement and explain new technologies to the client can be a struggle. What can be promised, negotiated, or declined is important information for the IT project manager to have control of. Many of these decisions are based on the project team's technical working level. An IT project manager may not be able to have experts in every software and discipline. The key to good technology team building is having employees that are technologically savvy and adaptive with strong knowledge foundations. Within the team there can be further training, cross training, and mentoring.

## **New Practices**

The more people are exposed to something, the more positive they feel about it; rare and unfamiliar things provoke negative evaluations. This mere exposure effect has been found, as Stanford psychologist Robert Zajonc writes, for "geometric figures, random polygons, Chinese and Japanese ideographs, photographs, of faces, numbers, letters of the alphabet, letters of one's own name, random sequences of tone, food, odors, flavors, colors, actual persons, stimuli that were initially liked and initially disliked stimuli." (Levesque 2001) People are unaware of the effect and routinely deny it is happening, but it still persists. The new ideas for promoting and sustaining creativity seem strange, even wrong, to most managers.

Creative work must be protected from the harsh external environment, especially when ideas are unfinished and unproven. William Coyne, former vice president of R&D at 3M, remarked in a speech at Motorola University, "After you plant a seed in the ground, you don't dig it up every week to see how it is doing." (Govendo 2001) It's difficult for corporate to let the team and their creativity run its course. But if an IT project manager wants innovation, he must keep the creative team away from the biggest customers, and for that matter from critics and anyone else whose primary concern is money. (Sutton 2001)

Creativity unfolds with selective sheltering. Psychological research shows that people are especially hesitant to try new things in front of "evaluative others" like critics and bosses. Tracy Kidder's Pulitzer Prize-winning book, *The Soul of a New Machine*, describes an engineering team that was sequestered in the basement offices of Data General. Kidder shows how the resulting lack of attention helped the MicroKids on this Eagle team do a better and faster job of designing a minicomputer. Kiyoshi Kawashima, former president of Honda, used a similar approach in 1978. He was concerned Honda was losing its vitality because senior managers couldn't understand what kinds of cars attracted young people. Kawashima assembled the youngest members of his staff (average age 27) to design a car that would appeal to younger customers and denied senior management interference. The result was the hot-selling Honda City Car. Few companies are able to innovate without shielding teams from the mainstream.

At the same time, a company shouldn't let a team get too comfortable. One of Sutton's most well supported ideas for managing creativity is that the IT project managers should "find some happy people and get them to fight." These fights should be over ideas and concepts. Bob Taylor, a psychologist turned research administrator, first encouraged this kind of conflict among the computer scientists from various universities he funded while at the U.S Department of Defense's Advanced Research Projects Agency (ARPA) in the 1960s and later at Xerox PARC in the 1970s. These scientists and engineers are responsible for the technologies that made the computer revolution possible, including the personal computer, the Internet, and the laser printer. (Sutton 2001)

To encourage creativity in the group, interact and keep them in motion, inaction is the worst kind of failure. Researcher Dean Keith Simonton provides strong evidence from his studies that creativity results from action. Renowned geniuses like Picasso, da Vinci, and physicist Richard Feynman didn't succeed at a higher rate than their peers, states Sutton (2001). They simply produced more, which meant that they had far more successes and failures than their colleagues. In every occupation Simonton studied, from composers, artists, and poets to inventors and scientists, the story is the same; creativity is a function of the quantity of work produced. These findings mean that measuring whether people are doing something or nothing is one of the ways to assess the performance of people who do creative work.

IT project managers face many challenges in their field. Not only must they be concerned with issues of creative individuals on the project team, the creative process and environment, and emerging technologies, they must also see projects through to completion. Although previously armed with only tried and true practices, IT project managers can now also look to new "against the norm" practices that have been proven equally effective.

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