

Lean Project Guide to Managing the Design and Development
of Interactive Media Products

Terry M Patterson

DePaul University

Advanced Project Competences:

F11: Can design and produce a significant artifact or document that gives evidence of advanced competence.

F12: Understands principles and processes of project management, and can create specialized guidelines for the practice of producing and developing interactive media products.

Introduction

Today's sophisticated interactive digital media production environments have demanded the attention and commitment of highly talented digital artists and technologists who regardless of their herculean efforts and success to keep up with the advancement of technological specifications, can hardly monitor the important task of managing the development and controlling the execution of their projects. It has been suggested that software projects tend to fail because budgets and deadlines are not met, and errors are more common than in other projects in the corporate world (Petrillo, et al, 2009). I will explore the complexities and challenges of managing the development of today's interactive media products and define ideas for making this process more manageable for an individual already familiar with traditional project management methods, but new to interactive media.

What is interactive media and why is its development so complex?

Before I begin documenting this very specific project management process, it is important to define what exactly I am referring to when I mention interactive digital media; and why is its development so complex that teams struggle to follow a good system to deliver results on time and on budget. Interactive digital media, also commonly referred to as *interactive media*, is simply defined as any digital technology that is programmed to respond to a user's action. Examples of interactive media may include digital games, web sites, desktop software applications, interactive television applications, and mobile applications; also known as mobile apps.

Interactive digital media projects are essentially software projects that combine media components into an application that runs on a specific delivery platform. Delivery platforms are displays that can support the combination of video, graphics, animation, sound and text to allow for user interaction (Finney, 2002). The complexity of developing these applications relies on many factors; one of them is the need for highly specialized multidisciplinary teams to work together in unison with clear objectives in order to achieve the desired result in a new product. Members of an interactive media team may include software developers, designers, musicians, scriptwriters, and many other professionals (Petrillo et al, 2009). Team members can also be geographically dispersed and that constitutes yet another challenge (Beise, 2004). Managing projects with such a diverse team is challenging in itself, but according to Kushwaha, there are other very specific factors responsible for the failure of these type of projects. These factors include failure to evaluate other existing applications, not having significant knowledge of the users and developer's cognitive characteristics, poor design, development process, and management of development; and poor knowledge and understanding of the development life-cycle of web systems (Kushwaha, 2006). Therefore, the complexity of managing the development of interactive media products has a lot to do with how the project process is implemented from the beginning, and how effective the project manager is at controlling the development execution. This is the reason why effective project management practices are so important in the development of interactive media.

According to Verzuh, project management is a discipline that includes a set of methods, theories and techniques that have been developed in order to manage complex unique and temporary work (Verzuh, 2008). Each interactive media project has a very unique timeline based on re-

quirements that may be in flux as the project develops. The discipline of project management to apply methods, theories and techniques specific to managing the development of interactive media projects must be precise, and at the same time flexible in order to deal with these fluctuations that naturally happen with these types of projects. Practicing precision and flexibility in technique is not an easy task for a 21st century interactive media project manager. In fact, in 2009, a team of scientists in Bulgaria began to observe the differences and similarities of running regular projects and software projects. These scientists determined that perhaps a specified software package had to be developed to manage these projects better; based on the software development cycle (Bozhikova, et al, 2009). The Bulgarian scientists found that unlike traditional projects, software projects have many phases of initiation as one feature is finished and another one begins, or many begin at the same time and are designed and developed in parallel. Therefore, their design of the very specific project management software to control the development had to comply and accommodate with these very demanding and iterative phases (Bozhikova, et al, 2009).

What is a software development cycle?

The software development cycle involves stages in which a software product goes from being initiated, to being developed, tested, updated, and then deployed and maintained. Interactive media development follows a very similar workflow as the software development cycle, with the exception of an extended team of creative personnel, many times absent from regular information system technology software projects. The cycle includes specific models that serve as frameworks of development; precisely to guide the process by which a software product is designed, programmed and deployed. The most common development models are classified according to the speed and detail of the implementation. Choosing the type of model to use for

implementation within the project management phases can be challenging and even confusing.

This guide will take the guesswork out of selecting the approach to use for the implementation of software projects, specifically those integrating interactive components.

Why is choosing a software development model important in the project management process for these interactive digital products?

The answer to this question relies specifically on the type of desired approach which needs to be based on project specifications, available personnel, type of organization in which the product is developed, documentation requirements, time constraints and budget considerations. Capturing these components of the project from the beginning should greatly decrease the risk of failure. Who else better than the lead project manager to decide which approach to take based on these components when initiating a project?

Ultimately, the project manager will face the challenge of coordinating the tasks to completion. But this is not so simple as it seems; managing the scope (the work or specifics that need to be accomplished) is one of the single most important duties of the project manager. Choosing the wrong model approach to working through the scope challenges can also drive projects to failure; Rehman assures that a timely completion of a project very well may be a product of a well defined and managed scope (Rehman et al, 2010). Models carry specific scope management techniques that when used properly may positively impact the project's bottom line.

Why is a Lean Project Management Guide Needed?

A brief guide will prepare project managers to implement the design and development of the interactive media product quickly and effectively. The guide should be able to provide a clear

structure to initiating the process and work through the project management workflow in order to complete the design and development on time and on budget. The lean guide should allow the project manager to determine which model or framework he/she needs to use to control the execution of the project.

Solution

An interactive media project manager needs to be able to identify the method to be used during the project implementation so the team dynamic and communication goes smoothly, and the execution of the project is successful. At the same time, the project manager should be able to apply project management methods in order to successfully run the project to completion with proper documentation for stakeholders. The lean guide will walk an interactive media project manager through every step in the process by providing a set of practical and easy to use worksheets with quick explanation for usage. These worksheets are referenced throughout this document as I explain why each worksheet is important to consider. The worksheets in the guide will serve as the significant artifact produced for this advanced academic project.

Design and Development Guiding Principles for Method Selection and Control of the Project

Scoping: What Needs to be Developed

One of the most important ingredients for creating a quality interactive product is to focus on a good definition of the product to be developed, this first step is called *scoping the project* (Finney, 2009). Although this seems obvious, many interactive projects fail to define the future product correctly. Finney says that for many small projects of this nature, the definition is based

largely on assumptions and experience rather than facts (Finney, 2009). To avoid a weak definition of the product to be developed, the scoping needs to be thorough. Not only a good definition needs to be included in a project charter, which is a statement of the work to be done for contractual purposes, but it is necessary for the next step of the process, which is referred to as *idea development*.

Idea development is the process of refining the definition of the future product. When we defined our product, we may have an idea of what we want to create; perhaps we know we have to create a virtual tour that will allow the user to discover different parts of a building, perhaps a digital virtual tour of a medical complex. The idea development stage allows us to think and ideate the specifics of our product. For example, we may want to brainstorm specifically how we want to portray each display of our digital virtual tour; Are we creating a digital story to walk a user through the building? Are we going to lead the user into specific menus to identify a destination that will be followed by a set of images and videos of the selected facility location? Are we going to create a digital tour character that will lead and simulate an interaction with the user while guiding them through the building? All of these examples of idea development, and are discussions that a creative team of individuals must have to further the design and development of the product. In many cases, the idea development process is iterative, meaning that it may change as the product is in development and more ideas are refined. It is the duty of the project manager to coordinate the ideation and iteration process to control the production to avoid delays. But let's not get ahead of ourselves with the process of idea development; the reason why I am mentioning this at this stage is to make sure it is understood that the product description that is used in the project definition does not need to be completely developed, however, needs to be clear enough to give the team a good starting point for idea development. One example of a pre-

liminary project definition that is complete enough to be ready for idea development may read like this:

Simulate a guided visit to the small animal hospital and showcase the specialties of service provided. The user needs to digitally experience the visit from beginning to end; and experience a personal walkthrough all the specialty rooms to meet the specialists and learn about their practice.

To get to the description above that we need to include in the scope statement for the project charter, we must involve the client as early as possible. When working on an interactive product for a client, the most common approach is to first conduct a client interview (Frick, 2008). When ideating an interactive product yourself, it is also useful to also ask the same important questions about the objective/purpose of the product. What problem will it solve? who is the target audience? who else is trying to solve the same problem already and how successful are they? what is the technology target that needs to be pursued, and the specific brand guidelines for the product? There is a specific document that summarizes these questions, it is called the creative brief, and it is usually the first document generated for an interactive media project.

The creative brief is the initial document preceding a project proposal and the project charter, which is the charging document and one of the most important documents of our project management process. The project charter will include information found in the creative brief and will serve as the official initiation document for the project.

The Project Proposal

Defining the terms of the agreement to produce an interactive media product according to the business and features specifications that were presented by the client in the creative brief is another important step in the initialization of the project. The project proposal needs to address project specifics and also cost, copyrights and warranties at a minimum to be accepted by a client. In the real world, proposals need to include a balanced mixture of experience, vision, detail, and clarity, and even then, Frick explains, there is no guarantee that a client accepts it. The primary goal of the project proposal for a client is to show them that the project is thoroughly understood, and to give them an idea into the production of the product, but without bringing up the details (Frick, 2008). The lean guide provides an interactive media project manager with a comprehensive list of must-include elements for the project proposal.

The Project Charter

In the traditional project management process, creating a project charter is an essential step to document the initialization of the project. The project charter document for an interactive media project is also a very important document that has the same purpose and follows the formal client agreement or proposal, and is also presented to the stakeholders. The project charter defines the product deliverable, names the project manager, sponsors, stakeholders, team, and delineates the budget and timeframe when the project will take place.

The sponsors are the individuals who support the project team and are behind the development of the product within the organization, therefore, their authorization of the project charter is essential as well. The project charter should be drafted succinctly and should take into consid-

eration information gathered in the creative brief to summarize the expected final deliverable (product) definition.

It is also useful when a communication plan is included with the charter to indicate to the entire project team and stakeholders how and when to expect communication and progress statuses. The lean guide provides a **project charter worksheet** that prompts the project manager to complete this information in order to move forward with the execution planning of the project.

Team Roles

Interactive media projects have multidisciplinary teams that must be selected based on the strength of abilities needed for the project. The creative brief is a great document to refer to when selecting the team and defining specific roles. In the project charter, we indicate three roles that do not change regardless of the method of implementation or the particular needs of the project. These three roles are Project stakeholder / client, Project stakeholder / sponsor, and Project Manager. For a web media project, for example, according to Shelford and Remillard (Shelford, 2003), team roles may include:

- Producer and / or content developer
- Information Architect
- Graphic Designer
- HTML Developer
- Developer
- Tech Lead
- Quality Assurance Engineer

Certainly these roles would apply to web media projects, but not all interactive media projects are delivered for the web. Therefore, the definition of the roles must be stated very carefully from the beginning, and according to the project type and tasks. The **team selection worksheet** allows the project manager to document the systematic selection of specialized personnel.

First steps to planning the project

Before drafting the detailed development plan, an interactive media project manager must also determine any threats that may compromise the successful development and implementation of the project. This is called risk management. Interactive media projects are full of uncertainty that may represent risks to the project completion, however, these uncertainties can be systematically managed well simply by anticipating the potential problems and planning in advance ways to mitigate them and control them with minimum impact to the project progress.

Verzuh says that the identification of the project risks surfaces as the project is conceived when the business case is built and the goals, cost, schedule and scope are defined. Within the project charter, the assumptions may become the first documented risks (Verzuh, 2008). The lean guide presents a **risk management worksheet** that allows the project management to define and list each risk profile complete with its percentage of probability, cost and response plan strategies (what to do in case the risk is imminent). Some of the risks identified in an interactive media project may become part of a risk portfolio; this means that the project manager can already have all the tools needed to deal with many of the risks as they come, because these risks have been identified and dealt with before.

One of the most important aspects of managing risk in an interactive project is to calculate the probability risk. The lean guide uses the expected value method to calculate risk using a **probability and impact matrix**. This way, the project manager can have tools to monitor risks throughout the project development.

Serious Planning: Flexible Adapting

The iterative nature of any interactive media project makes it very difficult to draft solid plans from the early stages of the project. However, a good interactive media project manager is able to identify high level summary tasks that are generally defined to create the first critical path timeline of the project. The traditional practices of the production processes for an interactive media product allow project managers to plan within the following parameters (Finney, 2002):

- **Detail Specifications.** These represent content specifications, technical platform specification, media and techniques specifications, interface and interactive design specifications. Generally, a team is assigned to work on defining each of these specifications based on the project requirements.
- **Asset Production and Integration.** The assets for interactive products may include audio, video, text, graphics, etc. Each asset production effort may have its own cycle, however, the estimate can include the production and revisions before or during the integration of the asset in the overall product. The integration of the assets is a process that is planned around the details of the design specifications. A well-integrated team is usually able to contribute with close certainty the time estimate of asset production around the timeline defined for the project. The lean guide provides a **asset inventory worksheet** that will help the project manager document

his/her awareness of what asset production tasks need to be closely monitored as they are created and integrated into the product.

- **Quality Assurance / Testing.** Although asset production for an interactive media product involves quality assurance within the individual development of the assets, when the assets are integrated for the product, there is a need to test their compliance to the requirements of the overall project. This is the phase of product quality assurance and testing. The lean guide will help the project manager identify this phase and prepare for it as the project is closer to final delivery.

- **Project Completion and Deployment.** Interactive media projects need to be deployed to a display platform to be tested; same way, they need to be deployed to be considered completed or delivered. During this stage, the project manager needs to be ready to present the project for completion with all the documentation necessary for the project closure. It is also important to note that in some cases, interactive media projects are deployed as complete mini versions, also known as beta versions of the final product, and teams continue to work on refinements after having delivered part of the solution to a client in order to deliver some business value early in the process. If the intent is to deliver beta versions of a product, this should be understood by the client early in the process of agreement negotiations as an expectation.

Planning to include all of these phases in the process is not as difficult as it is controlling the execution of these phases. The lean guide helps the project manager be aware of the phases and helps him/her define them, but does not show the project manager how to control them; instead, it provides a way to again, become aware that changes may have implications that need to be looked at carefully if they do happen. Elaine England and Andie Finney give very valuable ad-

vice when it comes to changes and say “Never be fooled by ‘it’s just a small change’.” (Finney, 2008). The trouble here is that changes in the production cycle of any of the assets needed for integration into the product can have implications to the overall production. They advise that consulting the team who is affected by the proposal schedule change is important because this helps predicting the implications of falling behind and any contingency allowed in time and cost (Finney, 2008). This is where the communications plan defined at the initiation stage of the project becomes a very important tool for the project manager, mainly because team members and stakeholders alike need to be involved in the process of change requests; and everyone needs to agree with the change and its implications.

The lean guide gives the project manager a **change note template**, that can be utilized when he/she communicates with the team and stakeholders; however, it is the framework by which a project manager decides to interact with the team to run the project’s production and implementation activities that will determine how formal the change notes need to be. Working practices have changed over the years regarding team work interactions for these type of projects. Emerging practices include agile development frameworks like Scrum, Kanban, or the latest combination: Scrumban.

I will be introducing at least one of these frameworks to give the reader some idea of what is involved and why they would make an impact in the project management process at this stage of development when controlling the production is so important. One of the most important aspects about interactive media development is to understand that its development is a non-linear process. Therefore, even though project task dependencies (or tasks that depend on other tasks to be completed) are still relevant to these type of projects, some dependencies do not affect the outcome; and if they don’t happen on time, the tasks can still be integrated or planned to be inte-

grated regardless. Think of a series of graphics to be developed for an interactive game; if they are not completely finished, a programmer can still code the interaction of the objects that those graphics will represent, and the graphics can take their place when they are completed. The programming did not have to be interrupted, the programmer can work with placeholder graphics and still finish his/her task. This is an example of a dependency that does not have a high impact in schedule. A project manager must be aware of this type of change impact and allow the team to adapt and be flexible to continue with project progress.

Back to the frameworks, why does an interactive media project manager need to be aware of these emerging frameworks? In the book, *The Elements of Scrum*, the authors give a very memorable short story of the origins of the what is known in software development as the traditional *Waterfall Method*, which is defined as “a sequential process wherein each phase is completed before the next is begun.” In the book, they mention that the man who first presented this method in 1979 at the IEEE WestCom Engineering Conference, presented it as a method of what not to do in software development (Johnson, 2011). The traditional *Waterfall Method*, however, was widely accepted after its adoption by the U.S. Department of Defense in 1985 as the official standard method for software development, and it was not until NASA described this method as potentially flawed and responsible for project failures in 2005, that more agile practices became of interest (Johnson, 2011).

In the traditional method, the work breakdown structure, also known as WBS, is set and may seem inflexible to change, or at least difficult to change; especially in these type of projects when requirements may be changing often and the team continually comes up with newer ideas to integrate. Agile frameworks are a bit more forgiving of managing this change of requirements. In fact, agile methods embrace change (Rehman, 2010).

One of these emerging and very interesting agile frameworks is the *Scrum* framework. Briefly describing this framework in the lean guide will give the project manager a very clear idea of how to conduct this development phase. To elaborate on the components that will be included in the lean guide, I will describe them here as follows:

The scrum framework delivers business value in every iteration, meaning the delivery of working components for review, and then refinement in an incremental manner (Johnson, 2011). The tools found in the lean guide to manage the scrum framework will include some essentials to run work sessions during development:

- I. **The Agile Manifesto (now 10 years old):**
 - A. Individuals and interactions over processes and tools
 - B. Working software over comprehensive documentation
 - C. Customer collaboration over contract negotiation
 - D. Responding to change over following a plan

As the reader can see, the manifesto places heavy emphasis on people over plans or contracts; making some elements of the formal project management process outmoded. However, in the formal role of an interactive media project manager, the skill is to finely strike a balance between the business requirements and legal obligations of the enterprise; and the momentum that needs to be built to allow a team to work smoothly in order to make maximum impact in the delivery of business value.

II. Scrum Team Basics Worksheet

This worksheet will help the project manager introduce Scrum roles within the team. A Scrum team is not dependent on specific role titles such as business analyst, graphic designer, developer/programmer, tester, etc. Instead, the team is organized by scrum-specific roles of product owner, scrum master, and team member. The idea is that the scrum sessions are separated by function titles and united in collaboration driven roles to maximize participation, brainstorming, and problem-solving.

The three roles defined are:

- **The product owner.** Makes sure that the needs of the customer and end-user are understood by the team. The product owner shuffles the tasks priorities of the team and redirects their attention to the most relevant requirements. In the book, Elements of Scrum, the role of the product owner is cleverly defined as the “keeper of the product vision” where the vision is really the objective of entire project; who the product is being built for, why, and how it will be used. All design decisions are based on the vision to make the product a reality (Johnson, 2001). If you recall at the beginning of the lean guide solution, I mentioned roles as well, and one important role to be well defined at the beginning is the role of stakeholders. An interactive media project manager who plans to use agile frameworks to control the scope of the project, must be well aware of creating the conditions necessary to allow full stakeholder participation, and identify their interaction with the team early in the process as part of project expectations. When the client interaction is not available or does not apply to the project, a product manager or someone in a similar role who is not a developer may be an ideal candidate for this role. The lean guide will include the description of the product owner’s role as described in the Elements of Scrum book. The product owner is an individual who (Johnson, 2011):

- Holds the vision for the product

- Represents the business and customers
- Represents the customers
- Owns the product backlog
- Prioritizes
- Creates acceptance and criteria
- Is always available to answer questions

• **The scrum master.** The individual holding this role is the team's coach, the person responsible for the self-organizing team and the person who is in charge of the team's performance. The scrum master is a facilitator that exercises influence and leadership with tact and sensibility to the team's own pace and interactions. The role is perfect for an interactive media project manager as this is a position of leadership without authority who serves as the team's advocate. The scrum master watches the progress and process of the scrum sessions. The scrum master's job is also to remove impediments that the team may encounter (risk management). The Elements of Scrum description that will be included in the lean guide for this role as the scrum master is an individual who is (Johnson, 2011):

- Scrum process expert and advisor
- Team coach
- Risk Stomper
- Facilitator

• **The team member.** This role is highly engaged in the work and thrives in the collaboration with the other team members without being afraid of taking on other job tasks that are not

related to their area of expertise, and to make this compromise in order to maximize productivity of the overall team. Because the team member owns the way the work is being produced and uses his/her own methods to get the work done, is also the one responsible for estimating the time it would take for an asset to be developed, or a feature to be implemented. The Elements of Scrum description that will be included in the lean guide for this role as the team member is an individual who is (Johnson, 2011):

- Responsible for the development work
- Self-organizing
- Owns his/her own development implementation decisions and estimation or deadlines
- Avoids staying within his/her own expertise and embraces other roles to advance the team's work.

Working the scope of the project using agile frameworks like *Scrum* might bring a dynamic that may positively impact the speedy delivery of an interactive product, and it may also foster excellent working relationships among team members in an organization due to the constant collaboration. An interactive media project manager should be able to be familiar enough with the process to be able to fill his/her role, perhaps as a product owner or as a scrum master; and be able to give the team all the support they need to make good progress and control the scope of the project. The lean guide will also feature scrum tools that will help the project manager run the scrum sessions with some order:

Scrum meeting planning worksheet. This worksheet will be useful to allow the efficient planning of the work the team will be doing for the specified short period called, in scrum terms, “the sprint”. To plan the sprints, the project manager (as scrum master role) needs to help the

team identify the deliverables at the end of the sprint; this is very similar to identifying specific milestones. The team brainstorms about the tasks that need to be completed to arrive to the set milestones. In the interest of simplicity, our lean guide will not use specific jargon used for these sprint planning meetings because what is relevant for the project management awareness is that a meeting needs to take place for this part of the scrum agile process. Specific scrum jargon such as story points, velocity, or yesterday's weather may not be referenced in the lean guide, so an interactive media project manager interested in learning the scrum framework would have the duty to become familiar with those specific terms of the scrum team interaction.

In addition to sprint planning meetings, a scrum framework also emphasizes the use of daily stand-up meetings; these are generally short daily meetings when team members get together to discuss the tasks of the day and share any challenges or impediments they may have. The lean guide will provide a prompt to remind the project manager of the need to conduct daily stand-up meetings and to clearly document any risk management task that may need to be addressed.

At the end of the sprint (milestone), team members conduct a demonstration of the completed work for that period. This allows a communication continuum with stakeholders that is healthy and promotes trust in the design and development team. Not to mention, the effectiveness of the project manager. The sprints or milestones are always celebrated with a type of lessons learned, also known, in scrum terms, as retrospective; plus a close for the iteration. The lean guide will prompt for these activities as well.

Scrum is a framework that delivers a lot of documentation during the development process because scope is controlled through product backlogs and sprint backlogs, which generally capture lists of the desired deliverables for the product including features, bug fixes, etc. Practically, any task that needs to be done is listed as a backlog item and added to the list with the most im-

portant or priority items at the top of the list (Johnson, 2011). Because this documentation is most useful to be kept on a board because it changes so quickly, an interactive media manager may simply keep track of the backlog simply by taking pictures of it; but not trying to document them on paper, which is why it is not necessary to include a backlog worksheet in the lean guide, but it is necessary to at least mention the backlogs for the interactive media project manager's awareness.

In scrum, tracking progress and tasks can be monitored through the use of what in scrum terms is known as burn down charts (Sim & Johnson, 2011). These charts help track progress for a quick report to stakeholders if this is included in the communication plan as an expectation. The lean guide includes burn charts templates to be used as project tracking documentation.

Another very important element in the scrum framework that has a lot of value for the project management process and control of scope is the assignment of sizes to task groups that are used to complete a story (specific requirement or feature). What does this mean? In essence task groups for features are categorized by the amount of time it would take to complete, but instead of referring to the estimate in hours of time, the team refers to these in size or effort, and they are referred to, in scrum terms, as story sizes (Sim & Johnson, 2011). The lean guide will include instructions to the Sim and Johnson's tool for estimation using Leonardo Fibonacci's sequential numbers to address story size. The team estimation tool is a game invented by Steve Bockman (Sim & Johnson, 2011), which essentially orders the features (stories) by effort (size). The beauty of this method is that the estimate of effort is completely team driven and this creates commitment and ownership among the team members. Another very dynamic way of estimating that is used by scrum teams is called *Planning Poker*. The lean guide will also include instructions for Estimating using the *Planning Poker* game.

Attending to the many times referred to in the agile development community as the user-centered development approach, a team has the capacity to keep the project on track and meeting the goals in the project proposal on budget and on time (Procter, 2011). This is the reason why the lean guide places emphasis on this team approach when it comes to the phase of controlling the scope of the development of interactive media projects. Although there are other agile frameworks that are emerging, I find that the most applicable to the practice of interactive media is the scrum framework because it does not specifically address just programming, but it works with the multi-disciplinary nature of interactive media development. I believe that a lean guide will prepare a new interactive media project manager be aware of the practice within an already familiar framework of traditional project management practices that his / her organization may already be using, as even big software companies such as Microsoft are using this agile framework and reporting great results (Taft, 2005).

The simplistic approach to scrum to control the scope of the project is never overlooked and can lead to great productivity, however, there is a caveat that every project manager must be aware of before embarking in the practice of agile methods for project management, especially scrum. This caveat is the fact that very often poorly monitored scrum (agile) teams favor communication and reject documentation, which could “degenerate the project into ‘undisciplined hacking’ because documentation is not maintained (Cervone, 2011). Novice project managers fall into the trap of not enforcing some very important aspects of agile methods, including avoiding changes during a sprint. To implement effective agile methods, a project manager must seek the commitment of upper management (Cervone, 2011). This lean guide will provide the new agile project manager with an easy way to be aware of what is needed to properly document the actions of the scrum process, in a very lightweight manner. Additionally, the lean guide will

provide the new agile project manager with a list of scrum resources for reference and continuous professional development in this area.

The lean guide will also provide the project manager suggestions to evaluate whether or not the scrum approach is the right one to follow for development; after all, the adoption of the scrum framework is challenging, and a poor execution can equally lead to project failure. For example, it has been documented that one of the major challenges of scrum implementation presents itself when teams are not collocated as physical proximity among collaborators makes a big difference for project progress and success (Luz, et al, 2009). Therefore, the aspect of geographically distributed teams is something to carefully analyze before making a decision to implement any agile framework such as scrum. Furthermore, the roles in scrum are clearly defined, and there is training available that shows exactly how to deal with the workflow of scrum teams to get to the success destination of a project. A role that is not played well may damage a project and drive it to failure. A team using the scrum framework becomes a self-directed or self-managed team; and a team leader must understand the workflow instead of giving assignments to team members. So the challenge of implementing the scrum framework in an organization has a lot to do with the type of organization that a project manager is in, and not necessarily whether the project itself is suitable for the implementation. In other words, the organization, whether matrix or functional, has to accept the process of the scrum framework and the roles that it demands of its team members. A known scrum expert, Ken Schwaber, compares scrum to chess. Schwaber says, “You either play it [scrum] as its rules state, or you don’t. Scrum and chess do not fail or succeed. They are either played, or not.” (Schwaber, 2001). This is an interesting interpretation; this means that generally the best result is achieved when the framework is implemented with certain fidelity.

Closing the Project

Despite of the agile frameworks used for controlling the development scope of an interactive media project, a project is a finite event and needs to be delivered. Some interactive media projects, as I have mentioned before, are delivered as beta versions, and this is hopefully included in the initial expectation for the client to make them aware of this incremental delivery of business value. However, not all interactive projects can be delivered half-done, and that is good news for project managers. Project closure means that the business value of the intended product has been delivered to the satisfaction of the project stakeholders and sponsor. This means that the team has achieved the objective of the proposed solution and has delivered on the promise of time and costs.

The lean guide provided as a solution to aid the interactive media project manager sail his/her way through these type of projects using traditional project management principles and combining agile methods for project scope management is a powerful tool that gives direction and awareness in this landscape. In his book, *The Fast Forward MBA in Project Management*, Verzuh defines five project success factors (Verzuh, 2008):

1. Agreement among the project team, customer, and management on the goals of the project
2. A plan that shows an overall path and clear responsibilities, which is also used to measure progress during the project
3. Constant, effective communication between everyone involved in the project
4. A controlled scope
5. Management support

The lean guide is a solution to address each and every point of project success according to Verzuh, because I agree with his assertion when he says “It’s no wonder these have proven to be the ingredients of a successful project. None of these will happen accidentally.” (Vezuh, 2008). In essence, the truth is that project management is effective when the techniques are applied systematically; and being comfortable and knowledgeable of the techniques is key for the success of any project. Additionally, for interactive media projects, it is not necessarily the knowledge of methods to develop each asset that is integrated in interactive media that will make an interactive media project manager successful, it is the understanding of the process to produce these assets and implement the integration; and most importantly, it is the steering of the effort and giving the team the guidance and empowerment they need to achieve and arrive to the creative solution that the interactive media product offers. This lean project guide to interactive media is a strategic tool for quick reference and guidance in a process that may be intimidating for new interactive media project managers.

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