Chapter 1:

KEY ROLES AND RESPONSIBILITIES

The Modern Software Product Organization

Throughout this book I'll be referencing the key roles on the product team, and in this first chapter I will define exactly what I mean by each. I realize that not every company uses these titles or assigns the responsibilities in exactly this way, but I believe the most successful companies do, and that each of these roles is essential to creating successful products.

Remember that when I say "software product organization" I'm referring to not just shipped software for business or consumers, but also Internet or web services for businesses or consumers, and consumer electronics or other software-centric devices.

Product Manager

The product manager has two key responsibilities: assessing product opportunities, and defining the product to be built. Typically, new ideas can come from anywhere—company executives, discussions with customers, usability testing, your own product team, your sales or marketing staff, industry analysts, to name a few. But then someone needs to take a hard look at the idea and decide if it is something worth pursuing. The product manager is responsible for this assessment (many companies call this an MRD—Market

Requirements Document—but I'll describe a lighter-weight version of this called an Opportunity Assessment).

Once you've decided that you have a good opportunity and your company is well-suited to pursue it, then someone needs to *discover* what the solution—the product—actually is, including the necessary features and functionality, the user experience, and the release criteria. Again, this someone is the product manager, and this task is the heart of his or her job. Some companies call this spec a Product Requirements Document (PRD), and others call it a Product Spec or Functional Spec. Again, I'll advocate a lighter-weight approach that's based on prototypes and not paper, but the key is that it describes the functionality and behavior of the product to be built, and not how it will be implemented.

User Experience Designer

There are actually several roles within the user experience design organization and I'll dive into more detail later on each of these. The key role here is the interaction designer (also known as information architect, user interface designer, and user experience architect). These people are responsible for developing a deep understanding of the target users (each persona that you're trying to satisfy in your product), and coming up with the tasks, navigation, and flow that are both usable and productive. The interaction designer works closely with the product manager to discover the blend of requirements and design that meet the needs of the user. The idea is to get to the point where the software is both usable (users can figure out how to use it) and valuable (users actually want to use it).

Project Management

Once the product has been defined, the product development team will take on the project and begin building the product. The project scheduling and tracking function is the core of project management. There are several different models regarding who exactly handles the scheduling and tracking. Sometimes it is managed by dedicated project managers, sometimes by the engineering manager (since

most of the resources are usually from his or her team), and in some cases the product manager is asked to project manage as well. It often depends more on the culture of the company and the size of the project. Larger projects especially benefit from a dedicated and skilled project manager.

Engineering

Also known as product development or software developers these are the people responsible for actually building the product. In some companies this is called "IT" (information technology), but it's important to draw a distinction between the software created for customers and the software created for internal use such as an HR application. IT is typically the group that supports internal employees, and the engineering organization builds and maintains products for external customers.

❓ What About Agile Teams?

Many of the product organizations I work with are using some form of *Agile* Methods, in particular, the most popular called *Scrum*. If you haven't heard of these, I cover them more in depth in the chapter *Succeeding with Agile Methods.*

In most *Scrum* software organizations, the product manager serves as the *Product Owner*, and the project manager typically serves as the *ScrumMaster*. The other roles defined earlier are essentially the same.

There are, however, several very important considerations for *Agile* teams when it comes to product organizations, such as incorporating user experience design, and managing the release process, and we will discuss these points throughout the book.

Site Operations

For Internet services, the product is typically run on central servers and accessed over the Web. The site operations team is responsible for keeping this service running. While some companies ask

the engineering team to cover this, most find that it demands a specialized set of skills and is far too important to be a secondary responsibility.

Product Marketing

The product marketing team member is responsible for telling the world about the product, managing the external-facing product launch, providing tools for the sales channel to market and sell the product, and for leading key programs such as online marketing campaigns and influencer marketing programs. Often companies ask the same person to cover both the product management (product definition) and the product marketing responsibilities. This can be difficult since the skills required are very different, but nevertheless it occurs at many companies.

Side Note: At Microsoft, the people that define the product and drive the project schedule are called program managers, which is an unfortunate title given that the term is already widely used in the industry to describe multiple-team project management. However, they could not use the term product manager either because they already use that to represent the product marketing function. While I wish they would use different titles (for both), in general I think they do a very good job on the critical product management role of defining products.

❓ What Are The Right Ratios of Roles?

In any software product organization, you will find that there are some natural ratios between product managers, designers and engineers. This is because to keep a particular engineering team busy with valuable and usable software to build, there is a certain amount of work that the product managers and designers must do (and therefore a certain number of people in these positions) to support the engineers.

There are of course several other factors that influence the right ratio of roles, such as the type of software being produced, and the experience and skill of the staff, but the ratios that follow should give you a guideline.

Q: How many product managers do we need?

A: Generally, one product manager for every 5-10 engineers.

Q: How many user experience designers do we need?

A: One interaction designer can generally support two product managers, and one visual designer can typically support four interaction designers.

Q: Should we have dedicated project managers?

A: For significant-sized projects, such as those with more than 5 engineers, yes. Further, if you use the "train model" of releases (where you make a release every one to four weeks consistently, and if a given feature is not ready it simply moves to the next available train), you'll definitely need dedicated project managers assigned to each release (which generally contains software from multiple projects).