

# Technology Venture Idea Generation

## NASTY GAL HITS IT BIG IN COMPETITIVE FASHION INDUSTRY

Sophia Amoruso is not your typical successful technology entrepreneur. She is a photography school dropout who has a taste for vintage clothing. Amoruso started her business in her ex-boyfriend's San Francisco apartment by selling her favorite vintage clothing "finds" on eBay and via her Nasty Gal Myspace page. She used her own models and took her own photographs. For example, Amoruso bought a Chanel leather jacket at a local Salvation Army store for \$18. Photographed on an attractive model, the jacket sold for more than \$1000. "In the beginning, I was basically paying the models with hamburgers," Amoruso said.

Amoruso left home at the age of 17 and traveled to Sacramento, California where she found herself dumpster diving, working in record stores, and generally drifting up and down America's west coast. She launched Nasty Gal at the age of 22 and quickly developed a loyal following. When the demand from Nasty Gal's 60,000 plus users exceeded her supply, Amoruso approached some fashion design shops to help her create her own brand of vintage clothing. Today, her company sells its own racy vintage-looking clothes at affordable prices, as well as some actual vintage clothing. By 2010 Amoruso was entertaining offers from a host of venture capital firms. Mostly, she turned them down. However, when she expanded in 2012 she accepted a deal with Index Ventures for a \$50 million equity investment. In 2013, Amoruso was 29 years old and in charge of a \$240 million technology based fashion retail empire.

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**Sources:** Adapted from John Ortved, "Sophia Amoruso Expands Nasty Gal," *The Wall Street Journal*, August 22, 2013; Victoria Barrett, "Nasty Gal's Sophia Amoruso: Fashion's New Phenom", *Forbes*, June 28, 2012; Nicole Perloth, "Nasty in Name Only," *The New York Times*, March 24, 2013.

## 3.1 INTRODUCTION

The question that all aspiring technology entrepreneurs need to answer in their own unique way is: What business should I start? Aspiring entrepreneurs are often confounded by the challenge of developing a credible idea for a new product or service. Consulting friends and family can be a useful start in developing and refining an idea for a new venture, but that may not be the best

approach. Those friends and family members might be tempted to tell you what you want to hear, rather than providing the critical feedback that will help you refine your idea.

A good place to start generating an idea for a new technology product is to consider the type of venture you'd like to start. The range of possible ventures is as broad as the human imagination. Today, we are witnessing the first private space ventures launched by some of the leading entrepreneurs of the era. As we learned above in the Nasty Gal story, new forms of retail are launching nearly every day. Seemingly, there is no end to the proliferation of venture types. Fortunately, most technology ventures can be understood as one of only four fundamental types. We will explore these four types in detail in this chapter.

All technology ventures are based on the founders' vision for a new product or service. The challenge for the aspiring entrepreneur is to turn this germ of an idea into an operating venture. In this chapter, we introduce a four-step process to generate and crystallize ideas for a new technology product or service. This process will help any new entrepreneur identify a target market, develop and refine a product-service concept tailored to that market, test various business models for the chosen market, and explore how to acquire customers.

As we discuss in Chapter 2, developing ideas into thriving ventures is an iterative process.<sup>1</sup> That means most ideas aren't hatched fully formed, but rather change and develop over time as new information is gathered and results of experiments are analyzed. Expert entrepreneurs know that regardless of how well they understand a market, it will nearly always behave differently than they expect—sometimes radically so. The expert entrepreneur is determined to make his or her idea successful, but he or she has also learned to be flexible and adaptable. Adhering to an original idea out of stubbornness or pride will not make a bit of difference to customers. Ultimately, the goal of every technology entrepreneur is to *create value* for customers. And customers have many alternative choices today if a product does not fit their needs and desires.

Because product idea development is iterative, it is useful for aspiring entrepreneurs to use what is called an opportunity register. The opportunity register is a type of a personal journal that is dedicated to helping entrepreneurs keep track of their evolving product or venture ideas. An opportunity register can also be a means of recording intellectual property that is being created. In this chapter we will introduce the concept of an opportunity register and how to maintain a formal one.

Finally, to help generate exciting ideas for a new technology venture, we introduce some alternative sources of idea generation. The most likely

source of idea generation is a person's own experiences, talents, and background. Still, on occasion, aspiring entrepreneurs are not able to generate a spark of insight or innovation on their own. They need an external stimulus to get their creative juices flowing.<sup>2</sup> Sometimes people can be inspired by reading something different from their normal fare, they can listen to inspiring people, and they can experiment with other techniques that we will recommend.<sup>3</sup> Let's begin this chapter by identifying the four fundamental venture types.

## 3.2 FUNDAMENTAL VENTURE TYPES

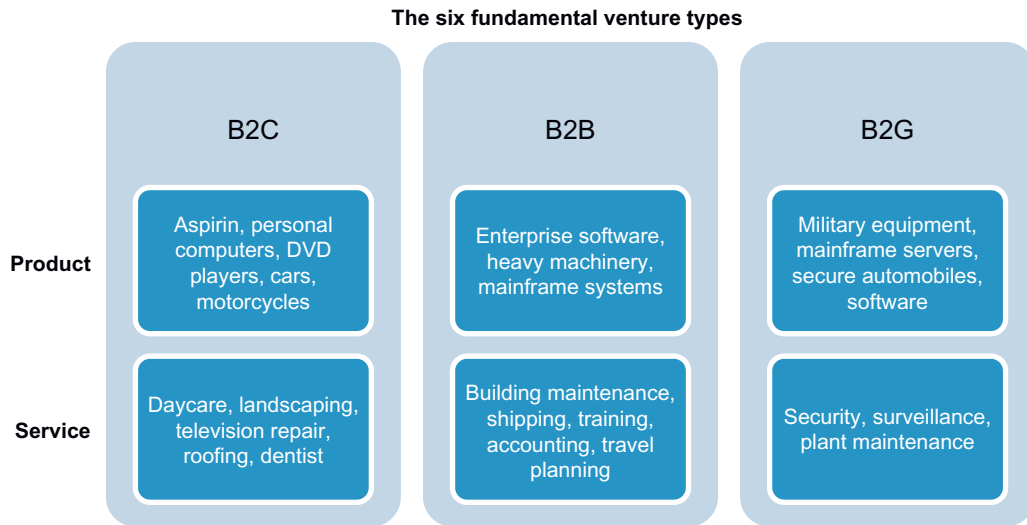
Entrepreneurs are among the most creative people on the planet. Imagine all the myriad ventures that have been created just in the past decade. Some of these ventures have had dramatic impacts on our economy, society, and ways of life. Facebook has more than 1 billion users worldwide and people are now staying connected to extended family and friends like never before. Twitter has revolutionized the art of the pithy comment. Tesla Motors has created the first all-electric sports car. In addition to these companies, here's just a short list of ventures that were founded by technology entrepreneurs and that have the potential to change the way we live and work<sup>4</sup>:

- Chegg
- Netflix
- Hulu
- Pinterest
- Instagram
- ZipCar
- LinkedIn
- AirBNB

Of course, these are all technology or Internet-related ventures, but there are many other nontech new ventures that have also changed our lives. Think of how FedEx has affected package delivery or how Southwest Airlines has changed passenger air travel. Think about beverage companies that have made bottled water—bottled water!!!—nearly ubiquitous.

Despite the many ways that entrepreneurs make millions through new ventures, in reality there are only six fundamental venture types that can be created. The six types are depicted in [Exhibit 3.1](#).

As [Exhibit 3.1](#) indicates, you can launch a venture that creates value for businesses, consumers, or the government. You can also create a venture that is primarily product-centric, or services-centric. That's really about your only choices, six fundamental venture types. This framework provides a handy

**EXHIBIT 3.1**

The six fundamental venture types.

starting point in your venture idea development process, but it is usually not as simple in reality. Many ventures offer both products and services to their clients. For example, new ventures that specialize in enterprise software often also have a service component to their businesses. Software providers might need to help install the new software for their clients, and many charge a fee for such services. Many also offer “maintenance plans” for a fee, including access to technical support in the event that problems arise with software usage.

Many technology ventures also serve both business and nonbusiness customers.<sup>5</sup> For example, Dell sells computers both to business customers and to retail customers. The company has separate web environments to service the different types of customer. Their corporate structure and reporting alignment separates these two business functions because the types of products, price points, marketing strategies, and service arrangements are vastly different for each customer type.

In general, aspiring entrepreneurs should attempt to limit their idea development—at least initially—to only those in one of the quadrants shown in [Exhibit 3.1](#). It is difficult enough to create value for a single type of customer without having to worry about serving two vastly different customer types. A venture launched in one quadrant can always develop products or services in the other quadrants as its capabilities and resources expand. Let's explore each quadrant in more detail, beginning with business-to-business ventures.

### 3.2.1 Business-to-Business

Ventures that are launched to sell to other businesses are referred to as “**business-to-business**” or “B2B” companies. There are many good reasons to consider launching a B2B venture. One good reason is that businesses usually have more money than consumers and may be able to purchase better the venture’s products and services. B2B ventures come in many varieties because the needs of business are many. For example, many companies do not manage their own data centers or server farms. Companies such as Amazon Web Services provide these services to other businesses—even to those that may directly compete with Amazon’s other business units. Amazon Web Services is a significant part of Amazon’s overall revenue, but most of us know Amazon primarily for its e-commerce business.

New B2B ventures don’t have to confine their business models to providing services to other businesses. There is just as much need for innovative new products. If you are thinking about building a venture in a B2B quadrant, there are three primary ways to create value:

1. Help companies make more money
2. Help companies save money
3. Help companies comply with government regulations and/or community norms

B2B ventures have to create value in one of these three categories or they simply won’t attract business customers. Businesses are not interested in “fashionable” or “whimsical” items in the way consumers often are. Most businesses are focused on making profits, and the only way to do that is through increasing sales, decreasing costs, or avoiding litigation and/or fines as a result of running afoul of regulations and norms.

Helping businesses increase sales is a popular focus for new ventures. For example, software designed to make a sales force more effective is a very crowded arena for venture development. Sales force automation, lead generation, and customer relationship management are just three types of enterprise software that target this space. Each of these three categories is crowded both with major incumbent firms, such as [SalesForce.com](https://www.salesforce.com), and a steady stream of new entries. Even though the space is crowded, significant new innovation over the existing products can still break through. However, any aspiring enterprise software entrepreneur should be aware that most companies are slow to change their existing ways of doing business, including shifting from one software type to another. There can be many costs associated with switching that prohibit consideration of a new product or service provider.

Effective cost-saving products or services for businesses almost always find a market. The focus for many of today’s medium-sized and large companies is referred to as “lean.” Lean is the catch-all term for constant attention to cost and cost-saving tactics. The lean enterprise is generally organized around

specific programs, such as “Six Sigma,” but there is plenty of opportunity for innovative new approaches to helping businesses reduce their costs.

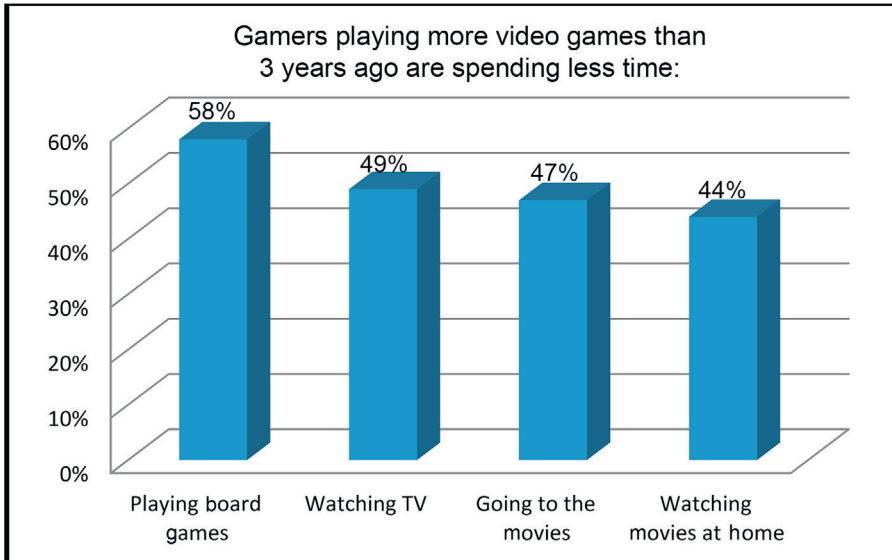
One of the most potent new approaches to cost saving for companies is business process outsourcing, or BPO.<sup>6</sup> Businesses have learned that they can outsource their noncore functions to other companies that perform that function as their primary business activity. Entrepreneurs who saw this emerging trend were able to capture this booming business. Of course, many of the top outsourcing firms, such as InfoSys and Tata Group, are located in India. These ventures have been among the fastest growing companies in the world. For example, Infosys was founded by six Indian engineers in 1989, and the company reported 2012 revenue of nearly \$7 billion.

Another category for B2B ventures that has emerged in recent years concerns the need for companies to comply with government regulations and/or demonstrate adherence to prevailing community norms. Few efforts to comply with government regulations or community norms are directly related to increasing sales or decreasing costs. Most are seen primarily as “preventative” in nature. For example, many companies today have implemented extensive, and often expensive, “sustainability programs.”<sup>7</sup> Many such programs have little direct impact on a company's sales or assist the company in reducing costs. However, proponents of such programs argue that having a sustainability program promotes positive impressions of the company in the community and prevents possible negative goodwill. Many entrepreneurs have taken the initiative to develop products and services to serve this type of business demand. For example, Sustainable Minds is a venture that was formed to help companies analyze and manage the lifecycle impact of their products and services. The company was formed initially to provide companies with an analytic software tool. It has since grown to include a range of related products and services.

### 3.2.2 Business to Consumer

New ventures that target the consumer abound and are referred to as “**business to consumer**,” or “B2C,” ventures. There are many ways that technology entrepreneurs can create value for consumers in both the service and product categories. People have a seemingly insatiable desire not only for functional products and services that help them meet their daily living needs, but also for fashionable, adventurous, whimsical, or entertaining products and services. For example, think about the enormous number of consumers who purchase games for their computers. Today, fully 58% of Americans play video games, and 51% of American households own at least one computer game console. As you can see from [Exhibit 3.2](#), video game usage has displaced other forms of consumer products.

Consumer products and services are in some ways more difficult to develop because of the great variety of ways in which value can be created. We saw in the

**EXHIBIT 3.2**

Video games have replaced other consumer products. *Source: The Entertainment Software Association, 2012. Essential Facts About the Computer and Video Game Industry. The Entertainment Software Association, Washington, DC.*

section above that there are really only three ways to create value for businesses: help them make more money, help them save them money, or help them comply with government regulations and social norms. Below is a noncomprehensive list of ways in which technology entrepreneurs can serve consumers:

1. Functional: 3D printing, home automation, and appliances
2. Entertainment: Video games, streaming media, and laser tag
3. Adventure: Virtual worlds, space tourism
4. Fashion: Google glasses, smart watches, and nano-fiber apparel
5. Transportation: Electric cars, electric bicycles, and hybrid vehicles
6. Health: Medical devices, fitness gear, and quantified self
7. Communication: Smartphones, online television, and e-mail
8. Shelter: Camping gear, smart homes, and emergency shelters
9. Food: Delivery services, energy drinks
10. Art: Electronic galleries, electronic photo frames
11. Literature: Blogs, tweets, and e-readers
12. Music: Streaming audio, electronic instruments

And the list could go on for likely hundreds of different categories, including some that have not even been invented yet.

Creating products and services for consumers is competitive, and most entrepreneurs that have been successful with consumer products counsel against being a **single-product venture**. It is fine to *launch* a venture around a single consumer product, but it is difficult to *grow* a company around a single product. The reason for this is well known to those who have competed in the consumer product space. If a product is successful, it can rapidly grow through multiple distribution channels, including the big retailers such as Costco and Wal-Mart. However, that very success can also prove to be a venture's undoing. Other companies that sell products through Wal-Mart and the other big retailers will likely not be far behind with an offering that directly competes. While an entrepreneur may have patents and other intellectual property rights to prevent outright copying, there are sometimes ways to get around these barriers. So while a single-product venture might enjoy success over the short-term, it is also likely to see its revenues decrease as the market becomes more competitive. The moral of the story is, if you desire to start your own consumer products company, you should have a number of potential product ideas that you can bring to market in succession and that are consistent with the brand image that you're developing. With such a strategy, you can build your company brand, and consumers will begin to look for that brand when deciding which new products to purchase.

### 3.2.3 Business to Government

The **business to government (B2G)** category is in many ways similar to the B2B category. The primary difference in doing business with the government over doing business with other companies is that the government often has highly restrictive rules that must be followed by its contractors. Usually, acquiring a government contract begins with bidding on a request for proposals (RFP) offered by a government entity. The RFP may specify that a single company will be awarded the contract, usually referred to as a sole-source contract. However, government projects often require that at least a portion of the work be done by a small business and/or a minority-owned enterprise. These so-called **set asides** ensure that the government is employing diverse businesses in its contracting.

In addition to rigorous stipulations that go with the bidding process, there also are rigorous standards that apply to those entities that win the bid and are contracted to conduct the work. For example, the government normally has very restrictive profit margins that it allows the performing ventures to make. That is, contracted ventures will be required to keep their profits within the allowable margins. Failure to comply with stipulations such as this exposes the venture to potential government auditing and, possibly, substantial penalties for noncompliance. In fact, for ventures that contract with the military, for example, their accounting reports will be scrutinized by the Defense Contract Audit Agency (DCAA). It is advised that technology entrepreneurs who



seek to operate B2G ventures first learn about the accounting standards that apply to such ventures before bidding and executing on contracts.

Governments around the world purchase both products and services from private companies on a daily basis. The government can potentially be a lucrative client for a technology entrepreneur, but it is also advisable to avoid having government agencies as the only clients for the venture. This is because government contracts often are subject to funding cycles and political processes that could jeopardize continued operation. In the United States, for example, many government contracts with private business organizations were adversely affected by the so-called sequester. This was a congress-led response to perceived overspending and resulted in the cancelation or postponement of many contracts with private companies.

### 3.3 THE IDEA GENERATION PROCESS

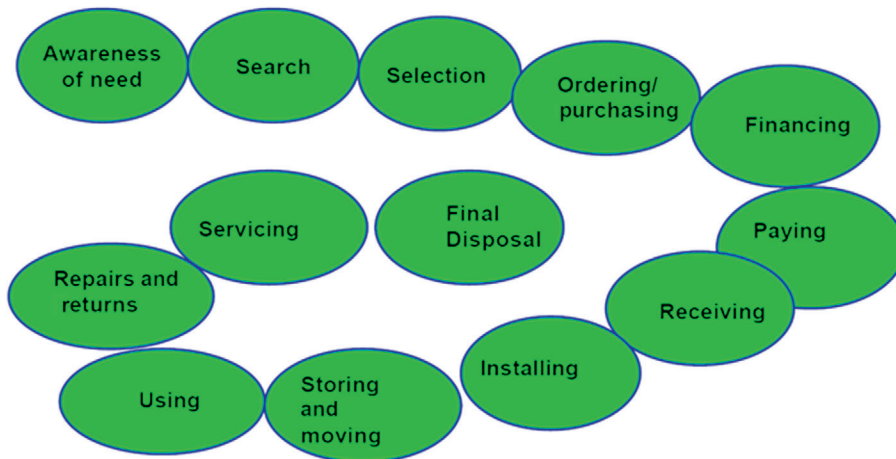
As we discussed in Chapter 2, the product development process is iterative and is best when it involves direct customer engagement early and often. Of course, before you have a product that you can present to customers you must first have an idea for a product. We've developed a four-step process that you can use to develop your idea.

1. Identify a point of pain in a target market
2. Innovate a product or service
3. Test business models
4. Explore how to acquire customers

#### 3.3.1 Step 1: Identify a Point of Pain

It is much easier to start a new venture if you have some idea of what your **target market** will be and what **point of pain** you intend to address.<sup>8</sup> Your target market doesn't determine the entire market opportunity for your venture's products or services, but it does give you an important starting point. Every technology venture has to start with the first customer, and it is far easier to get your first customer if you identify your target market, thoroughly study its pain points, needs, and idiosyncrasies, and tailor your offerings to that market.

We will discuss target market identification and analysis in far greater detail in Chapter 5. For now, simply be aware that you need to identify a point of pain in a target market, preferably one with which you have some familiarity and connections. Customer pain points can be identified using a number of techniques. One useful way of considering the typical customer experience is through a model known as the **consumption chain**. The consumption chain illustrates a typical set of steps customers must go through to acquire and use goods and services. Any one of the steps in the consumption chain may be a customer point of pain and ripe for a new solution. The consumption chain is illustrated in [Exhibit 3.3](#).

**EXHIBIT 3.3**

The consumption chain. Source: McGrath, R.G., MacMillan, I., 2000. *The Entrepreneurial Mindset*. Harvard Business School Press, Cambridge, MA.

This illustration is a handy way of finding pain points in nearly any market. Consider the Birchbox example (Mini-Case below). The founders realized that one of the pain points for consumers who comprise a target market interested in cosmetics is searching for the right new products. Driving to stores and trying new products can be time consuming and prohibitive for many shoppers. However, having the opportunity to try new products in the comfort of their

**MINI-CASE***Birchbox Addresses Customer Pain Point*

Birchbox is a pioneer of what is known as “subscription e-commerce.” The business model is based on registered users receiving a monthly box of personal care products. After trying the products, Birchbox provides opportunities for users to purchase full versions of the products via its website. The company sends its 400,000 registered users one new box per month at a price of approximately \$10/month. This part of the business model generates revenue, but not much profit. Birchbox founders knew that profitability would only result from converting the users into buyers of the products they were sampling. Birchbox co-founder Katia Beauchamp said “When customers find a product that they love from Birchbox, we try to make it as easy as possible for them to shop and then transact.” Apparently, the model is beginning to work. One upscale cosmetics brand indicated that over 11% of Birchbox users who received a free sample of their product were converted into buyers. The company, founded in 2010, was continuing to grow. In 2013 it reported that its e-commerce sales were on track to triple, with 25% of sales generated through its e-commerce store and more than half of its users making purchases there.

**Sources:** Adapted from K. Mai-Cutler, “Birchbox Says Its Subscription Model Is Working, with 25% of Revenues Coming from Its E-Commerce Store,” *TechCrunch*, August 15, 2013; D. Ransom, “Birchbox and Changing the Way We Shop,” *Entrepreneur.com*, May 16, 2012; C. Rubin, “Hayley Barna and Katia Beauchamp: Founders of Birchbox,” *Inc.com*, June 27, 2011.

own homes eliminates that problem and encourages consumers to purchase products they might otherwise have never discovered.

### 3.3.2 Step 2: Innovate a Product or Service

You may already have a rough idea of the product or service that you'd like to take to your target market. Be careful, however, not to be satisfied with your initial intuitions about what your customers want. To innovate a product or service idea is both an art and a science. There are a number of possible strategies that you can use. For example, the point of pain may be a common problem that you'd like to solve. The Mini-Case below highlights how one technology entrepreneur used his own experience and technical background to come up with a new product idea.

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#### MINI-CASE

##### *Coffee Joulies Keeps the Temperature Just Right*

David Jackson wanted to start a business with his friend and fellow engineer Dave Petrillo based on their mutual interest in phase-change materials. One morning, during his usual routine, Jackson was making a latte for himself. He lamented that it would take 20 min to make the perfect latte, but once it was ready it would be either too hot or too cold to drink. When thinking about how to fix the problem, he realized that phase-change materials could be the solution to that problem. When he called his friend to talk about it, they realized that they were onto something. As a result of thinking about this common problem, Coffee Joulies were born. Coffee Joulies are metal beans about the size of ice cubes that are filled with phase-change material. When placed in coffee, the Joulies absorb excess heat to cool the coffee to 140 degrees. When the coffee cools below that temperature, the Joulies release the stored-up heat to keep the coffee at a stable temperature for up to 5 h. Jackson and Petrillo sought funding for their idea via Kickstarter and received more than \$300,000 in pledges. Jackson and Petrillo combined their passion for working with phase-change materials with their everyday experiences to generate an idea for a new product. The product would not have much merit if Jackson were the only latte drinker in the world. But they both knew that latte drinkers comprise a large target market opportunity for their product idea.

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**Source:** Westervelt, A. 2013. "A Morning Routine Sparked a Startup." *The Wall Street Journal*, August 19, p. R7.

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In addition to the problems of everyday experiences as a source of product ideas, aspiring entrepreneurs have other potential sources of great new ideas. Below is a list of some techniques used by technology entrepreneurs to innovate new product ideas<sup>9</sup>:

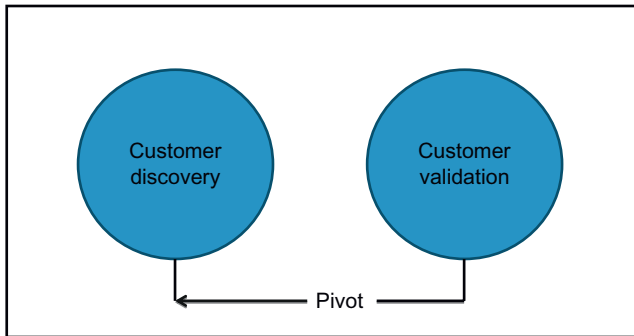
1. **"Look at what is bugging you"** (David Cohen, Founder and CEO of TechStars): Startups are often based on a problem that needs to be solved. Identifying the problem usually happens while you're busy working on some project. The idea for Coffee Joulies came to David Jackson while he was working hard to make the perfect latte.
2. **"Be present in life"** (Angela Benton, Founder and CEO of NewME Accelerator): Many successful entrepreneurs do their brainstorming

around problems in which they are personally invested. Businesspeople tend to ignore their creative sides. Innovation often comes from maintaining a balance between technology and the arts.

3. **“Let your subconscious do the work”** (Ben Baldwin, Co-Founder and CEO of ClearFit): Creativity often happens when the mind is occupied with a monotonous task, leading to the coveted “eureka moment.” Baldwin came up with the idea for ClearFit, a venture that makes it easy for companies to find employees that fit their culture, while he was driving 80 miles an hour and not thinking about work. He advises that aspiring entrepreneurs take a break, smell the flowers, and while they are doing that their subconscious mind may be devising a solution to a problem.
4. **“Attack practical problems”** (Brian Spaly, Founder and CEO of TrunkClub): Spaly advocates making a mental or actual note whenever you encounter a customer service or customer experience that is frustrating. Ask yourself whether you can come up with a solution to the problem you’ve encountered. Spaly’s insight was that men’s clothing stores were not helping men achieve their own unique style. His company, TrunkClub, is a men’s clothing store that asks men to enter information about their style preferences, sizes, and stores in which they shop to match them with a personal stylist.
5. **“Think big”** (Kevin Colleran, Venture Partner, General Catalyst Partners): Colleran advises technology entrepreneurs to “go big or go home.” Other advice he provides is to think about how you can make the world a better place. He says that the best technology entrepreneurs pursue ventures that simplify or improve the lives of many people.

You are likely to cycle through multiple revisions of your product or service concept before it is ready for the market. A good way to iterate and develop your product over time is to demonstrate it to selected members of your target market and ask for their reaction. This process is referred to as **customer validation**. For example, Jim Holley, an inventor and patent holder of baby products brought his first product to market after more than a year of iteration. His first product was a baby bottle called “U Mix.” U Mix was a unique design that held the fluid in one part of the bottle and the dry formula powder in another. When the baby was ready to feed, the bottle was rotated to enable mixing of the fluid and dry formula. Holley intercepted mothers in grocery aisles with his product prototype as one technique to gather highly relevant feedback. He listened to their feedback and revised his product over and over until it was ready for mass distribution.<sup>10</sup> The customer validation process is illustrated in [Exhibit 3.4](#).<sup>11</sup>

Customer discovery is defined as the process of identifying a target market. The customer validation process involves validating that the product(s) you intend to introduce to that market are actually desired. If there is little or no interest



#### EXHIBIT 3.4

The customer validation process. Source: Blank, S., Dorf, B., 2012. *The Startup Owner's Manual*. K&S Ranch, San Jose, CA.

from your target market, it may be necessary to pivot to a different market, refine the product, or try a different business model.

The customer validation process does not need to end once you have entered the marketplace with your products. In fact, in order to keep a competitive edge in the modern economy, many analysts recommend continuous innovation as a core business strategy.<sup>12</sup> **Continuous innovation** means making ongoing improvements to the products you already have in the marketplace and inventing new ones to extend your brand and develop additional streams of revenue.

### 3.3.3 Step 3: Test Business Models

A **business model** is simply the way a business makes money.<sup>13</sup> Companies make money in a variety of ways, and often it takes a bit of creativity to determine which business model will be right for your venture. For example, many of the social media companies that are based on user-generated content (e.g., Twitter, Facebook, and others) don't have any obvious business model. Registration is free, usage of the respective platforms is free, and there are no charges for uploading content. So how do these social media ventures make money? In part, they collect private user data and sell that data to other companies. This is a controversial part of their business models.<sup>14</sup> Some of these companies also sell advertising, or they sell the rights to market directly to their members. Facebook, for example, reported operating results at the end of Q2 2013 that impressed investors because of the improvement in advertising revenue for users of their mobile platform. Its stock price, which had been languishing below its \$38 IPO price for many months, rose above that level for the first time because investors realized the immense potential of its new business model.

Recall the Birchbox Mini-Case. When you think about it, Birchbox really doesn't have any novel innovation except for its business model. Birchbox doesn't have any proprietary products or services; it sells goods made by other companies. This is an important point. Aspiring entrepreneurs should recognize that unique new ventures are often launched based solely on innovative business models that create new value for customers. In the case of Birchbox, the founders realized that people enjoy getting monthly packages filled with new product samples and that they are willing to pay for this service. They also realized that the key to their eventual success would be to choose products that users would be influenced to purchase through their e-commerce store.

We will be returning to the concept of a business model throughout this text, but the following is a short, noncomprehensive list of some business models that technology entrepreneurs might use to monetize their products or services:

1. Pay as you go: This model is probably the most well known. It simply means that your products and services are offered at a price and your customers purchase them as they use them.
2. Freemium: This approach focuses on providing a base set of products and services for free and an enhanced set at a reasonable price. Many Internet companies, such as Dropbox, use this business model.
3. Billable hours: This business model is used by consulting firms and other professional service providers, such as software developers. Under this model, the consultant bills the client on an hourly basis for services rendered, often with a minimum fee or "retainer" as part of the business model.
4. Advertising based: This model is often used by Internet companies that do not charge for the content they offer. The goal is to aggregate users and sell advertising based on the number of daily and monthly visitors. Facebook is an example of a technology venture that is monetized entirely through advertising to its one billion plus registered users.
5. Subscription pricing: Subscription pricing involves payment of a fee to gain access to products (usually information products) and services for a fixed period of time. Many online content companies, such as *The Wall Street Journal*, charge subscriptions to users for access to their various publications.
6. Distributor or reseller: A distributor business model doesn't actually make anything, but, rather, aggregates products from companies that do, selling these products to end users. Many in-home medical technology companies use this model. They don't make the products they install in people's homes. Apria Healthcare is an example of such a company.
7. Retailer/Wholesaler: These are familiar business models where the goal of the entrepreneur is to aggregate and hold products for end users and make them available as needed. Online retailers abound, including such well-known names as Amazon, Fab, and Gilt. Online wholesale is also big

business, with companies such as Coffeeam and Houz Depot leading the way in their unique product categories.

8. **Landlord-Leaser-Licenser:** This business model is based on holding title to particular assets (such as office space or intellectual property) and permitting others to use the assets in return for some consideration, typically a fee. This is a popular business model for data centers and cloud-based technology “service providers.” The term “service providers” is somewhat of a misnomer; while certain services are provided, the primary benefit provided the consumer is the use of the systems. Users of such services don’t take title to the servers or software. They simply lease as much of the provider’s assets as they need. Amazon’s Web Services unit is an example of a lease-holder business model.
9. **Broker:** A broker doesn’t buy or sell, but rather facilitates the transaction between buyer and seller and generally charges a percentage of the transaction. eBay is an example of a successful e-commerce venture that is based on the broker model.

This brief list is not comprehensive, but it should help you think about how your products/services actually will be sold in the marketplace and how they can attract sufficient customers to generate a profit.

Your business model will evolve over time as you learn more about your customers: their tastes and their ability to purchase your products. The business model canvas reviewed in Chapter 2 is a great tool to use to discover how you are going to deliver value to customers consistently and reliably. Remember, in designing your business model you ultimately are seeking a scalable and repeatable model around which your venture can serve a massive market opportunity. There is no point in devising a model that is not scalable because that will serve to frustrate customers who are forced to wait for their purchases when demand exceeds supply. There is no point in devising a business model that is not repeatable unless you are building a craft business that features one-of-a-kind products. There is nothing wrong with models that are not scalable or repeatable, *per se*, but they are not what technology entrepreneurs typically aspire to create. Artists and craftspeople may desire creating ventures that feature one-off products that are not repeated or intended for mass markets. Technology entrepreneurs generally set out to solve massive human problems and serve massive markets.

### 3.3.4 Step 4: Explore How to Acquire Customers

Customer acquisition is often more involved and expensive than many aspiring entrepreneurs think it is. It is involved because there are a vast number of unknowns that entrepreneurs will encounter regardless of how much prior market research they’ve conducted. Customers will, more often than not, respond in unexpected ways when presented with new products to evaluate or



purchase. For example, a venture that launches a product might discover that it is wildly popular with customers. While this may seem like a great outcome, it can be damaging to the venture if it doesn't have adequate supply to meet the demand. Frustrated customers may be lost forever, and the problem often spreads as negative word-of-mouth.

Acquiring customers can also be a function of where they are located, geographically speaking, in relation to the venture. If the market is the local neighborhood (which is what it would be in a restaurant), it may be enough simply to put up a sign and announce that you are open for business. On the other hand, if a technology entrepreneur wants to acquire customers worldwide, there may be much more complexity and expense in announcing the venture's existence and value proposition. Many aspiring entrepreneurs have learned too late that only putting up a website is not enough to generate sufficient sales. A full-blown, thought-out strategy for acquiring, serving, and maintaining customers should be part of your new venture idea. This topic is discussed in greater detail in Chapter 10.

### 3.4 THE OPPORTUNITY REGISTER

Ideas are easy to come by, but unfortunately many aspiring technology entrepreneurs never make it past the idea stage. One of the major reasons why this happens is that the entrepreneurs don't develop their ideas sufficiently, and therefore they can't turn those ideas into ventures. The ideas are not developed because many aspiring entrepreneurs lock into a single idea and believe they must do all in their power to turn THAT idea into a venture. What the aspiring entrepreneur doesn't know that the expert knows all too well is that most ideas will fail as new ventures. To hedge against the risk of failure that attends a single idea, the expert entrepreneur knows that every good venture is based on a multitude of ideas that have gone through multiple and even continuous rounds of iteration, recombination, and improvement.

As an aspiring entrepreneur yourself, there is no time like the present to begin to keep track of your ideas as they evolve. A tool that many aspiring technology entrepreneurs use to track their flow of ideas is called the **opportunity register**.<sup>15</sup> An opportunity register is simply a notebook or computer file that you will return to again and again as new ideas come to you and as you modify the ideas that you've already recorded. [Exhibit 3.5](#) provides an example of an opportunity register:

Using the analytic tools that you will be learning throughout this book you can continuously evaluate and refine your business ideas. You should take care to record your ideas in enough detail that you will be able to subject them to



Field	Your Input
Business concept: Short description	
Possible upside: What might the concept generate in revenue or profit terms?	
Related trends	
Relevant data: This is a place to jot down any material numbers or information that you may have.	
Obstacles and barriers: What might stop you from grasping the opportunity?	
Position: What competencies, skills, or resources might make this a good opportunity for you?	
Competition: Who is likely to contest this opportunity and what are they likely to do?	
Sources: Where did you get your information?	
Timing: How long is the window of opportunity? How quickly must you pursue it?	

**EXHIBIT 3.5**

Example of an opportunity register. *Source: McGrath, R.G., MacMillan, I., 2000. The Entrepreneurial Mindset. Harvard Business School Press, Cambridge, MA.*

thorough analysis. While, as will be discussed in Chapter 5, not the best evidentiary record of technology development, a loose-leaf folder is often best for an opportunity register in that you can add pages to each idea as needed. Each idea in your opportunity register should include:

1. The date on which the idea was initially entered. Each update to the idea should also include a date.
2. The context of the original idea and all future revisions. For example, if you are revising an idea, be sure to record the thoughts or events that led to the revision. It may be that you received some important feedback from a trusted source. Record the source and the nature of the feedback. As time goes on, you may need to recall the thought processes that led to key decisions as much as the decisions themselves.
3. As your idea matures over time, you should consider whether there is any intellectual property that you will need to protect. For example, new inventions evolve over time and eventually may result in some truly novel insights that can and should be patented or otherwise protected. This will be discussed in more detail in Chapter 5.

It's also important for aspiring entrepreneurs to work with **deliberate speed** in the development of their ideas.<sup>16</sup> It is exceedingly rare for potent new ideas to be generated and developed in a complete vacuum. More likely than not, any good idea that you have is already being developed by someone else.

We use the term “deliberate speed” because it is also important to recognize that many ventures fail because they don’t develop the basic business concept and business model enough before going to market. Going to market too early can be very expensive, but getting to market too late can mean losing out to competitors. It is best to learn all you can about your markets and customers in the process of introducing your minimally viable product, and then continue to listen to and learn from customers after full release. Listening to your customers and building the feedback into subsequent releases of your products or refinement of your services better to meet customer needs is vital to your success.<sup>17</sup>

Of course, an opportunity register doesn’t constitute a new venture. To launch a new venture, you’ll eventually have to choose which of your various ideas gives you the best chance to succeed. It is possible that you’ll be able to develop several of your ideas through your new venture, or build several ventures around several ideas. Still, you need to start with a single idea—preferably the one you feel most confident about developing into a successful venture.

Far too often, aspiring entrepreneurs have a lot of ideas that they’d like to build into a new venture, but they are unable to focus on a single idea to start. Expert entrepreneurs know well that developing a single idea into a going concern is a difficult challenge. Attempting to develop more than one idea during the venture launch process is almost certainly a recipe for failure. You increase your chances for success if you choose the idea that you think is the most likely to have a ready market and for which you have most of the necessary resources.

### 3.5 NONTRADITIONAL IDEA SOURCES

If your search for a venture idea is not going well, you may be able to find inspiration via some nontraditional sources. Remember, however, that we highly recommend (and research into expert entrepreneurs supports this point) that you should build a business that is a good fit with who you are. The Mini-Case below highlights how one technology entrepreneur leveraged his love of rap music to create a new venture.

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#### MINI-CASE

##### *Rap Genius Answers “What do those lyrics mean?”*

In 2009 computer programmer and rap music aficionado Tom Lehman became curious about the line “Eighty holes in your shirt, there: your own Jamaican clothes” in rapper Cam’ron’s song “Family Ties.” Lehman asked his Yale University classmate, Mahbod Moghadam, what the lyric meant and was told that it referred to the tattered clothing worn by poor people in Jamaica. Lehman and Moghadam, along with a third founder Ilan Zechory, decided to start a blog called Rap Genius to explain the lyrics

on the songs from Cam'ron's album "Purple Haze." The site's unique feature was that it allowed users to annotate the lyric explanations by highlighting a phrase or a word and entering an explanation of the meaning. Users could then click on the highlighted material to generate a pop-up box that would contain the explanation. The founders opened the site up to the public to enter rap lyric explanations in 2010. By mid-2011 the site had more than 1 million unique users per month, and users were actively reading and rating the annotations and adding comments of their own. Rap Genius received a \$170,000 investment from Y-Combinator, and eventually it received a \$15 million investment led by venture capital firm Andreessen Horowitz, and including such celebrities as Ashton Kutcher and rapper Nas. The founders of Rap Genius have subsequently launched two related sites called Poetry Genius and News Genius, and they have plans for other "Genius" sites.

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**Source:** Adapted from Nicole Hong, "A Cryptic Lyric Inspired a Hot Startup," *The Wall Street Journal*, April 19, 2013, p. R3; Amanda Holpuch, "We're Trying to Make Rap Genius Into Everything Genius," *The Guardian*, July 23, 2013; Sean Ludwig, "Are Rap Genius's Founders Insane, or Is It Just a Gimmick?" *VentureBeat*, May 1, 2013.

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While inspiration like that which motivated the Rap Genius founders is nice, it's not always the case that great ideas come to entrepreneurs in a sudden flash of insight. Some of us are less adept at the idea generation process than others and can benefit from inspiration from nontraditional sources. Below is a short list of some nontraditional sources of inspiration that you may want to investigate.

### 3.5.1 Read Alternative Literature

The long history of the sciences and the arts has proven that good ideas in one domain often can be translated and transferred to another domain. For example, in the computer sciences extensive work has been conducted on mimicking the human brain via software algorithms. One of the more promising lines of research in this area is referred to as "neural networks." These are networks of interconnected and parallel processing circuits that can do some of the things that the human brain can do. As it turns out, neural networks have an application to the world of high finance. Many leading investment houses today use neural network technologies to mimic the behavior of securities traders so that they can make predictions about buying and selling behaviors.<sup>18</sup>

In order for you to be able to transfer ideas from a domain outside your disciplinary expertise, you need to dive into the literature. If you are a business major steeped in the literature of finance, accounting, management, and marketing, you may find inspiration from reading evolutionary theory, cosmology, or art history. Steve Jobs was famous for the innovative and often beautiful products he created via his multiple ventures, Apple, Pixar, and Next. In his biography, Jobs stated that his ability to create one insight after another was because he was always seeking to remain on the intersection between technology and the liberal arts.<sup>19</sup>

### 3.5.2 Visit New Places and Experience New Things

Experience is a great teacher. There are some things that simply cannot be learned by reading about them. Imagine a book that explains to you how to ride a bike and how you will feel when you ride down hills with the wind in your hair. Do you think it is possible to learn to ride a bike through reading a book, or to understand the thrill of the wind in your hair by reading about how good it will feel?

In order to stretch your world and develop new ways of understanding how people live and work, you'll need to get outside of your normal comfort zone. We're not recommending that you take more risk than you're willing to take, but it is very unlikely that you'll find some unique niche in the wide world of human affairs without venturing beyond your routines. You may engage in some world travel to witness the types of things that people struggle with in foreign lands. You may want to investigate what they eat, how they live, and their sources of entertainment. More than one entrepreneur has discovered novel products in foreign lands that sold well when imported to the home market.<sup>20</sup>

We're also not advocating that you do these things without prior forethought about what you'd like to learn. It is one thing to take irresponsible trips and do irresponsible things with no forethought about learning valuable lessons, but it is quite another to take deliberate action intended to stretch your thinking and help you learn new and potentially valuable things. We are advocating that you use new experiences to refine the ideas in your opportunity register and that you build on this experience over time to continue to refine and improve your venture ideas.

### 3.5.3 Meet Thought Leaders

Thought leaders are people who are on the leading edge of ideas and innovations in a particular discipline. Where do you meet people like this? They are oftentimes featured on television, especially via cable networks like the Discovery Channel. Stephen Hawking, for example, is a well-known thought leader who is often featured talking about cosmic questions. Many thought leaders also appear at leading conferences. The Consumer Electronics Show is an annual draw for people to see and hear from leaders in consumer technologies. The South by Southwest Conference in Austin, Texas is also a major conference for thought leaders in technology and design. The Internet is also a rich source of access to thought leaders in nearly any category of human achievement. Below is a short list of websites that you may want to visit:

- TED ([www.ted.com](http://www.ted.com))
- The Edge ([www.edge.org](http://www.edge.org))
- Stanford University's eCorner ([www.ecorner.stanford.edu](http://www.ecorner.stanford.edu))
- Fora TV ([www.fora.tv](http://www.fora.tv))

Sometimes the ability to think differently about products and services is referred to as “thinking outside the box.” What that means is that most people think in recurring patterns and often cannot think different without an external stimulus. This phenomenon is true for most people, including some of the world’s most accomplished scientists. Research into how science evolves has demonstrated that most of us think about the problems we’re trying to solve in terms of well-received “paradigms.” Oftentimes in the history of science, the established paradigms actually blocked progress. Those who held fast to standard ways of thinking about problems were not the ones to create the revolutionary breakthroughs. In fact, the history of science is replete with “rebels” who dared to think differently, who oftentimes were vilified in their era, but who are today recognized as the giants of their discipline.<sup>21</sup>

In what ways is your way of thinking about the world stuck in old paradigms? How can you persuade yourself to think differently about the world and the people in it? We have given you a few starting points in this chapter, but it truly is up to you to follow through and create the next great entrepreneurial venture.

### 3.5.4 Team Up

If, after all is said and done, you are unable to generate an exciting idea for a new technology venture on your own, you still have an option—align yourself with someone that has that exciting idea. Remember, business is a team sport. There are a number of different elements necessary for the success of a startup venture, and the idea—intellectual property—is only one of those necessary elements. As will be discussed in Chapters 5 and 6, it is rare that any single individual can contribute all of the necessary elements to the venture. If you are unable to generate the seminal idea, you can still participate in the venture by making some other form of contribution—things like: resources, services, leadership, expertise, contacts and relationships, credibility, and capital.

## 3.6 CHAPTER SUMMARY

This chapter began by introducing you to the four types of venture: B2B product, B2B service, B2C product, and B2C service. We cautioned that it’s really not this simple in practice, because many firms provide both products and services to their customers. Still, we asserted that startup ventures should choose only one quadrant to begin and then think of ways to expand into other quadrants after the initial effort begins to work.

Next we examined our four-step process for generating an idea for a product or service. The first step is to identify a point of pain in a particular target market.

Your target market is the first market that you will attempt to sell your products into. It is helpful if you have some familiarity with this market because it can be very difficult to please customers that you don't know anything about. The next step is to innovate a product or service that is designed to address the point of pain that you've identified. Remember, the product development process should be considered to be iterative, and it is helpful to get feedback from customers early and often—even before the product is ready for “prime time.” The next step is to test various business models. A business model is defined as the way the business makes money. You'll need to test various models with prospective customers to find out what and how they are willing to pay for your product. Finally, you'll need to explore how your venture will acquire customers. It is no use to start a venture if you have no idea how you will acquire customers. Customer acquisition is often far more expensive than estimated and is normally far more difficult to achieve than initially thought.

We next discussed the notion of the “opportunity register.” The opportunity register essentially is a type of journal that allows you to keep track of your product ideas, business model ideas, and customer acquisition ideas as you develop and refine them. We indicated that this is also a useful tool for recording your intellectual property developments. One of the ways in which patents are issued depends on the priority of the invention—meaning that if there is more than one party claiming similar patents, the party that invented it first will have priority. Good records in an opportunity register can assist with priority claims.

Finally, we explored some nontraditional ways for you to generate ideas for your new venture. These techniques include reading new things, visiting new places and meeting new people, and listening to thought leaders in a variety of disciplines that interest you.

## KEYTERMS

**Business model** The way a business makes money.

**Business to business (B2B)** Ventures that sell to other companies.

**Business to consumer (B2C)** Ventures that sell to consumers.

**Business to government (B2G)** Ventures that sell products or services to government agencies.

**Continuous innovation** Making ongoing improvements to products you already have in the marketplace.

**Customer validation** The process of testing your product with customers and learning from their feedback.

**Deliberate speed** Moving quickly, especially technology entrepreneurs, to stay in front of potential competitors around the world.

**Opportunity register** A personal journal of you evolving venture ideas.

**Point of Pain** The problem you intend to solve for customers.

**Single-product venture** Ventures that sell only a single product to consumer markets.

**Target market** The set of customers you are targeting with your new technology product.

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## WEB RESOURCES

- [www.edge.org](http://www.edge.org): In case you need some help in generating new ideas for a venture, this website features some of the world's leading thinkers on a wide range of science and technology topics. The articles on this site are sure to stir your imagination and set your creative juices flowing.
- [www.killerstartups.com](http://www.killerstartups.com): This website is similar to TechCrunch. It highlights startups that are launching all over the world and provides insightful commentary and background on the ventures and the founders.
- [www.techcrunch.com](http://www.techcrunch.com): This website provides continuous updates on the world of technology ventures. It is a very useful site to visit often while you develop the ability to see the trends in new technology ventures and technology investor activity.

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