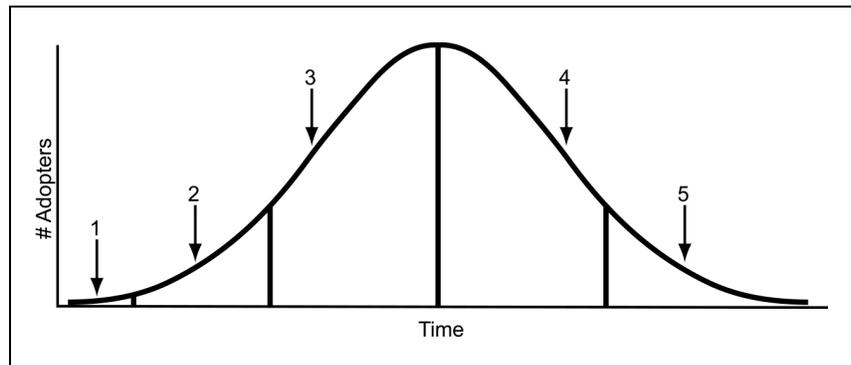


Technology Adoption Life Cycle

To begin to understand what has and could happen to the RP industry, there must be an appreciation for the Technology Adoption Life Cycle (TALC). TALC is a business model used by many marketing leaders, executives, and consultants. Geoffrey Moore, in his books *Inside the Tornado* (HarperCollins Publishing, 1995) and *Crossing the Chasm* (HarperCollins Publishing, 1991), describes the adoption of products and services through an analysis of the buying personalities common within each stage of the cycle. Moore is a founder of the Chasm Group, and much of this analysis stems from his work .

The significance of TALC is that it provides insight into the current market conditions for a technology and a glimpse into the future. This is achieved by understanding the types of buying personalities, and the percentage of the population they represent, as a technology matures and progresses through its adoption life cycle.

TALC follows a normal distribution (bell-shaped curve). As the following diagram illustrates, the adoption curve defines the quantity of consumers over time. As with any normal distribution, the segments (stages) are defined by a standard deviation.



Source: Todd Grimm, Accelerated Technologies, Inc.

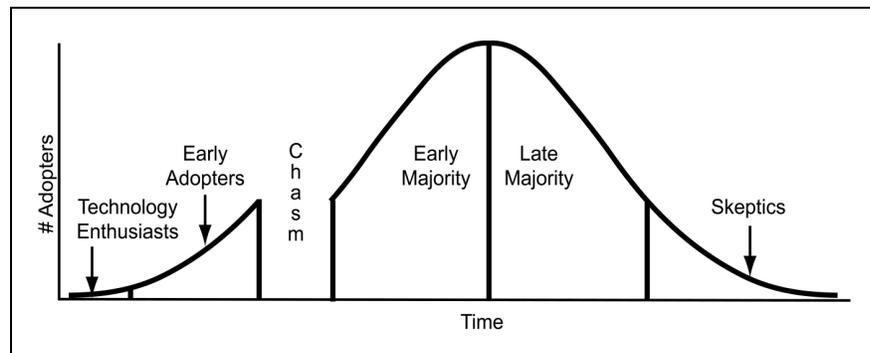
The buying personalities within each stage are:

1. Technology enthusiasts (a.k.a. innovators)
The first to commit to new technology, these individuals love to get their hands on the latest gadgets. Their role is one of gatekeeper, providing access to the next segment of buyers. Catch phrase: This is cool technology.
2. Early adopters (a.k.a. visionaries)
Relying on intuition and vision, these individuals appreciate the benefits of a new technology. They are driven to embrace the new technology to gain a competitive advantage. The early adopters are willing to accept a solution that is not entirely complete, and they are prepared to commit the required resources and effort to make the technology work. Catch phrase: I can see the impact.

3. Early majority (a.k.a. pragmatists)
Methodical and pragmatic in their approach to solving problems, these individuals rely on hard, proven data and facts. They tend to buy from the market leader. The decision to use new technology is made to make the company more effective. They look for a safe purchase. Catch phrase: Show me.
4. Late majority (a.k.a. conservatives)
Price-sensitive and demanding, these individuals adopt new technology so that they are not left behind. Like the pragmatists, they require facts and a proven track record, but this information needs to be extremely thorough and proven to be reliable. Catch phrase: Everyone else is doing it, so I guess we have to.
5. Skeptics (a.k.a. laggards)
Never adopting new technology, these individuals are more prone to criticizing it. They use established legacy systems until the option is no longer available. Catch phrase: That will never work. The old way is the best way.

Pragmatic and conservative buyers account for the majority of the population. In correlation with a normal distribution, these segments cover the spread of -1 to +1 standard deviation. This represents approximately 68% of the market, split evenly between the two stages. Combined, the technology enthusiasts and early adopters represent a mere 16% of the market (-3 and -2 sigma). The skeptics complete the curve with the remaining 16% of the population. From these numbers, it can be seen that a technology will not experience substantial growth and acceptance until the early majority buys into and welcomes the technology.

If the adoption curve presented a smooth transition from stage to stage, as previously illustrated, it would be somewhat predictable and easy to navigate. However, this continuous curve ignores a critical element, the chasm. This critical point in the TALC, identified in the following diagram, emphasizes a disconnect between stages two and three. The name of this stage is significant, because it is a true representation of the chaos and turmoil existing at this point in the adoption life cycle. If not properly bridged, a new technology can stall and possibly fall to the bottom of the chasm, never to be heard from again.



Source: Todd Grimm, Accelerated Technologies, Inc.

The chasm is created by the extreme differences between the buying habits of the visionaries and those of the pragmatists.

Visionaries

Accept paradigm shock
 Accept discontinuous innovation
 Revolution
 Accept an incomplete solution
 No standards
 Instincts and emotions to justify

Pragmatists

Avoid paradigm shock
 Demand continuous innovation
 Evolution
 Require a 100% solution
 Standards emerge
 Facts and hard data to justify

Until the chasm is successfully bridged, the pragmatists will not enter the market. And until the pragmatists enter the market, the mainstream market will not be captured, and revenues will demonstrate little growth.

Bridging the chasm requires a solution that minimizes the risk and impact of using a new technology. In essence, it must cater to the characteristics of the pragmatists. A "whole product" must be deliverable. The solution must be provided such that the anticipated benefits are realized without reworking existing systems and repairing glitches, and the solution can have no gaps in the application set.

The chasm is particularly dangerous because the technology stalls just after a period of rapid acceptance and sales growth. As the visionaries adopt the new technology, many see this sharp incline in revenues as sustainable. It is at this point that an industry and its vendors may proclaim that enormous growth and revenue are just around the corner. These high expectations are countered by the stall in growth that is associated with the chasm, causing the optimists to question the future of the technology.

The critical factor in using TALC is a true perception of where a technology is situated on the curve. RP's position will be deduced from the unit sales for previous years as provided in the section titled "Growth trends and sales forecasts" in Part 2. Prior to evaluating RP's performance, another factor must first be considered: RP's TALC must accommodate an independent adoption curve that exists for a related and controlling technology.