*The strategist's bookshelf*

# A model for picking technology winners?

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*Jackie Fenn and Mark Raskino, Mastering the Hype Cycle: How to Choose the Right Innovation at the Right Time, HBS Press, 2008*

The Hype Cycle model got its start in 1995 when **Jackie Fenn, a** Gartner consulting analyst, observed that promising new technologies seem to go through a predictable pattern—hype, initial disappointment and initial success—before becoming accepted by customers. At first, innovative technologies quickly are over hyped and, as a consequence, they then frequently disappoint early adopters who adopt based upon hype rather than substance. Subsequently, as the customer gains experience with the new technology, the potential for real successes become apparent. During this third stage, the technology often becomes more robust, knowledge is developed around how best to deploy it and customers learn where and how the business benefits can be obtained. The hype cycles integrates the idea of technology improvement with the overpromising of results due to the newness of an innovation.

*The new book Mastering the Hype Cycle* augments the basic framework that Gartner has been using for more than a decade to for communicating to clients the position and evolution of hundreds of IT technologies. It claims to offer top managers a proven way to anticipate the future of innovation in their industry. The Hype Cycle model has had the most success analyzing when information technologies will translate into truly useful new projects. The authors also suggest that the Hype Cycle is also a helpful framework for assessing, talking about and deploying innovations of more generally sorts. Many new ideas, innovations and business models go through a similar set of stages of inflated expectations, disappointment and eventual success.

What the model does not seem to subscribe is the slow build of a disruptive technology or business model or where a "deviant usage" of a technology is the harbinger of a new usage pattern, e.g. the slow emergence of the cell phone in less developed countries as the device of choice for Internet access. This deviant usage is very different than the initial hype around smart phones in North America, where users typically own a laptop, which has a superior form factor for most Internet usage.

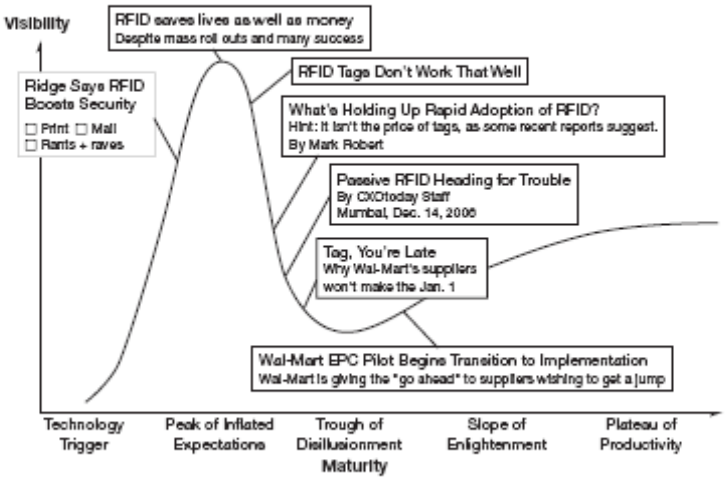
## The value of the Hype Cycle

The hype cycle addresses a genuine problem in information technology – the need to time its selection and deployment. Too early and the technology does not work. Too late and you lose opportunities for competitive advantage. Information technology, like good wine, should not be served before its time. Instead, if you pick the right moment in the introduction cycle, pricing may have dropped, supporting and deployment skills are have been developed, complimentary technologies have emerged and risks are reduced. Understanding that the hype cycle reflects a common pattern, companies can time their deployment to minimize failures. For example, guided by the Hype Cycle concept, you can reduce your project risk by introducing a series of iterative prototypes timed to arrive at advantageous stages of the cycle. In this way, instead of making an overlarge commitment to a new technology, you can phase in your implementation of usage. As you learn from each iteration of use, you can expand the scope of the project without increasing the risk.

The following chart illustrates the use of the Hype Cycle for radio frequency identification (RFID) or wireless readable tags that can track inventory and assets. RFID were initially touted as a technology that would dramatically improve the ability of companies to track inventory and assets with the promise of lowering inventory costs, shrinkage and recording costs. The overhyping became even greater when the world's largest retailer Wal-Mart demanded all its suppliers use RFID. However, implementation problems dramatically slowed down the speed of adoption.

FIGURE 1-6

**Hype cycle for RFID based on press articles**




Source: Unilever.

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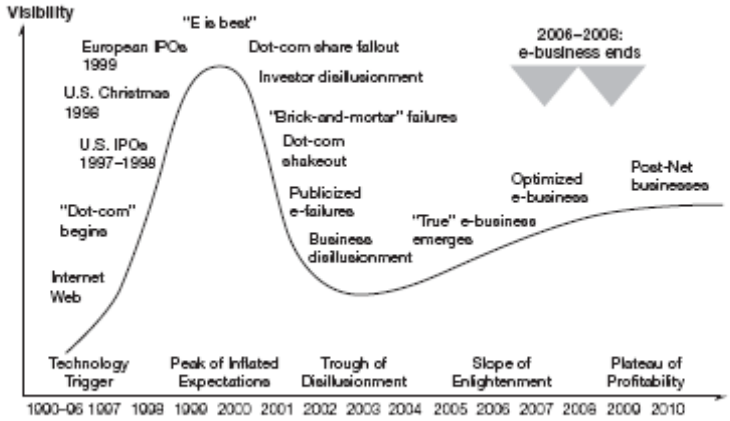
As with most technologies, RFID has progressed through the five stages of the hype cycle. An initial phase where the potential of the technology gives rise to initial interest, numerous media articles (a metric that can be tracked) leading to early adoption, typically in specialized situations or with customers who have optimistically bought into the promises (often unfulfilled) of the technology or innovation. The second phase of the Gartner Hype Cycle is amusingly called the “Peak of Inflated Expectations.” The inevitable result of inflated expectations triggers the “Trough of Disillusionment.” From failure comes learning and perhaps just as importantly, the slow maturation of the technology and its ecosystem. Success leads to actual productivity and positive economic returns. The Hype Cycle offers decision makers a simple way to consider the critical risks of any unproven technology. Research, piloting, phasing and iterating prototypes can help reduce the risk of being deceived by the hype and understanding how marketing campaigns need to evolve as expectations about a new technology emerge. As the next graphic shows, e-business has followed a fairly typical hype cycle. Clever marketing by IBM allowed them to reframe their traditional business as supporting e-business at a crucial stage of e-business evolution

FIGURE 1-7

**Gartner e-business hype cycle, 1999**




Source: Gartner Group.

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A well-publicized non-IT product such as the Segway electric scooter has clearly gone through a hype cycle and today seems to be lingering in the “Trough of Disillusionment.” Initially marketed as a major new form of transportation that could be used by everybody, it has ended up being a more specialized product. The Segway is now a conveyance for warehouse personnel, police, security guards, repair staff and groups of guided tourists, which is useful because it travels much faster than walking. It has not lived up to its hype as a mass market product, however, because it could not be safely used on most road systems and many communities have forbidden Segways on sidewalks.

**Four Hype Cycle mistakes**

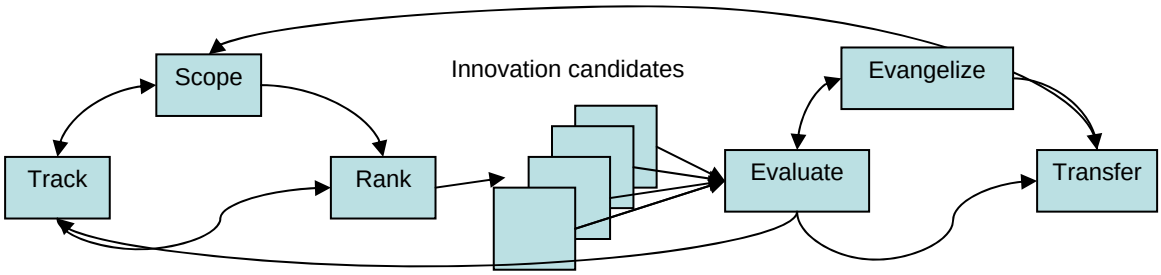
Another case in the book describes the introduction of optically scanned loyalty cards in the UK market by two supermarket retailers, Safeway and Tesco. The authors suggest four common traps caused by mistiming various stages in the implementation of such a technology.

1. Adopting too early;
2. Giving up too soon;
3. Adopting too late;
4. Hanging on too long.

Safeway was an early adopter of loyalty programs but did not mine the individual consumer information sufficiently to drive changes in their business. They exited their loyalty programs and pursued a more price-driven strategy. Safeway UK ended up being acquired by a smaller competitor. In contrast, Tesco, initially a smaller competitor, did not give up on its loyalty programs. It used the individual consumer purchasing information from the loyalty cards information to alter its relationship to customers, its pricing and inventory strategies. This enabled it to grow its business, becoming the third largest retailer in the world.

**Prescriptions**

**Graphic: The Gartner STREET Process for Innovation Adoption**




The prescriptive part of the book revolves around Gartner's **STREET** process. **S**cope, **T**rack, **R**ank, **E**valuate, **E**vangelize, and **T**ransfer. **Scoping** means "decide what's valuable to you and how much risk you'll take to get it". **Tracking** means "seek out relevant innovations... and track their progress along the hype cycle." Innovations should then be ranked for further **Evaluation**, a more detailed examination of whether the top ranked innovation candidates can be brought forward, analogous to the Stage Gate model of new product development used by many companies. **Evangelizing** includes inspiring, educating and involving the stakeholders who can influence the success of your project. The **Transfer** stage involves fully transferring the innovation to those who must deploy it – groups that should have been involved earlier in the **STREET** process.

Perhaps the most significant takeaway from the book is that a *single* dimension of performance improvement offered by an innovation often grabs too much of

the attention of a manager. Instead, considering the broader consequences of use and adoption--knowledge about performance, integration with other processes and technologies, staff and skills availability, usage issues, and uncertainties about payback--will help managers to time both pilot technologies and full scale deployment of a potential product.