

Canaries, whips, and sails

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..... The common clichés of modern business soothsaying are both trite and incomplete, almost by definition. That does not stop anyone from using them less often, but it does suggest the need to use them with caution.

What is the substance behind three common clichés in technology business forecasting—dead canaries, buggy whips, and sailing ships? When are they useful and when are they not?

Let's put these three clichés to a challenging test. I will use them to analyze events in popular music over the last few years. It is a good story even without the test, so it is worth telling.

More to the point, this story will demonstrate the sense in which these clichés identify transitions in markets. It will also illustrate why they can be poor tools for forecasting value creation. That is a lesson worth knowing.

Canaries and whips

The phrase "canary in a coal mine" refers to miners who sent canaries in cages down mine shafts. When the air was poisonous, the canaries came up dead, and the miners stayed out. Today "dead canaries" is shorthand for events indicating business trouble.

For example, Napster is a dead canary. It sprung up out of the mind of Shawn Fanning, a creative and passionate programmer who did not have much patience for legal nuance. He envisioned that directory-aided, peer-to-peer file shar-

ing was more effective than peer-to-peer without such a directory, which, until then, had been common.

Fanning had his 15 minutes of fame for being right about the programming, but not about copyright law; the courts ruled that his service was illegal. Napster closed and eventually revived as a legal service, albeit a less-popular one.

How does that make Napster a dead canary? The original Napster survived long enough, from 1999 to 2000, to demonstrate that young music listeners shared music in proportion to whatever was hot on the pop charts. It showed how sharing MP3 files could become an extremely effective substitute for the existing music business. Napster was a dead canary in the sense that it signaled trouble around the corner.

This gives rise to our next cliché, about buggy whips. This is shorthand for a market where producers have done nothing wrong but are losing business because their technology is becoming obsolete. The cliché descended from the automobile market at the turn of the 19th century, when autos were expensive toys for the rich. Henry Ford changed all that with the Model T, a 1908 introduction. It was—*gasp*—functional and inexpensive, especially in comparison to other makes and models. It took a while, but eventually other firms, such as Chrysler and General Motors, came out with even more functional and inexpensive designs.

More to the point, it was no fun being

a buggy whip manufacturer after the Model T's introduction. Buggy whip makers could do nothing to save their business from turning into what it is today: a small market for the Amish and the producer of accessories for Indiana Jones Halloween costumes.

As with canaries, clichés about buggy whips have their rightful place in the music business. Specifically, there have been a plethora of buggy whip businesses over the years, particularly in the part of the value chain devoted to storage media. Manufacturing vinyl records, for example, was once common and is now a specialty. The same could be said for the manufacture of reel-to-reel and eight-track tapes. Cassettes are headed for the same fate. None of the manufacturers of these devices did anything wrong except produce an obsolete technology.

Mindful of history, CD manufacturers did panic at the success of Napster, whose success appeared to be the harbinger of a new distribution mode. MP3 players began to look like a business with better long-term prospects than CDs. CDs looked like buggy whips.

Sailing as resilience

Not every declining business becomes a buggy whip overnight. Inevitable obsolescence does not imply immediate decline in demand. It is possible to make a good business out of an old technology with a spirited attempt at innovating. That is what happened to sailing ships.

Specifically, sailing ships had a dismal future after the introduction of the steam ship, but innovations in sailing delayed the inevitable for decades. At the turn of the 19th century, sailing ships still had a big market because they just became better, faster, cheaper, and more efficient.

This cliché has its uses today. For example, retailing is the sailing ship of the music industry. A recent trip to my alma mater drove this point home to me. It has been two dozen years since I bought my first jazz LP. (If you must know, it was Miles Davis' *Kind of Blue*). The same specialty shop is still in the same location, as is the nationally branded distributor a couple doors down from where I bought my share of ear-splitting pop rock. On my weekend visit, both stores were as crowded as ever. I was there for nostalgic reasons, while most others were there to buy.

I cannot imagine how either store will survive the digitalization of music distribution over the next two dozen years. Yet, to be fair, I cannot imagine how they survived the rise of Wal-Mart and Best Buy in the last two dozen years, not to mention Amazon. Something about that location, right next to all the foot traffic from a major college campus, gives them opportunities. Although that does not guarantee success, so far their store managers have found ways to sell product and pay employees.

I am certain that some music outlets will disappear as digital music spreads. My point is only about the speed of decline. Most retailers have a history of adapting successfully. They will not stop fighting, even with this latest trend.

This discussion should serve as a warning. Dead canaries indicate something about the decline of demand, but that is hardly enough information for a good prediction. There is a difference between whips and sails. The latter market can be quite profitable.

Forecasting a value chain

There is still an enormous problem with all these clichés. Canaries, whips, and sails identify the sense in which an existing business is vulnerable. But each over-

looks how much value a new process will generate. There are four reasons for this incompleteness.

One reason is the inherent limitation of human imagination. It is much easier to find a cliché for an existing activity than a futuristic one.

Second, new businesses involve market-based learning, which businesses simply must experience. That is, the operation of a new business often does not become apparent until customers surrender cash for some services and not others. Operations must address design errors. Marketing campaigns must find out what does appeal and what does not. It is an endless list. A learning process reveals the profitable opportunity behind a business in a way that even a good imagination cannot.

Third, homework does not help. That is, specialists cannot overcome these limitations with greater study. Anybody who has followed music in the last decade knows about experts who tried. Yet, over the last decade three experts could sit in the same room and they would disagree.

Before coming to the fourth limitation, consider why the music business seemed particularly vulnerable to these three (and still is). The old value chain starts at retail outlets, extends back to assemblers, manufacturers, recording artists, and eventually copyright holders. Nobody forecasts the disappearance of the musician, but nobody had correctly forecast the rest of the business either—in other words, the details of how music will get from musician to customer. Anybody who followed this market this last decade has sat through endless wrong predictions about how this value chain would evolve.

More to the point, nobody forecast what actually happened. Oversimplifying, the sequence went like this: MP3 files of songs began showing up on the Web, even though MP3 designers had never intended such a use. A gifted programmer (Shawn Fanning) tried something wild, which a venture capitalist (Hummer Winblad) eventually picked up. This led to a deal with a big corporation (Bertelsmann) already in the

business. A few lawsuits determined the ground rules for competitive interaction. Collectively it led to a lot of dead canaries and many worries about existing businesses becoming buggy whips. Some tried to alter their products. Every month came another news announcement at Real Networks, Microsoft, and Sony, among others. And, then, unexpectedly, an old computer firm—with a fanatical following and a recycled, mercurial CEO—developed a design that was just right (Apple iPod). Within a year that product became a quarter of the company's revenue. It garnered two-thirds of MP3 sales, changing the forecasts for everyone.

That chain of events illustrates a fourth reason why clichés do not forecast a new value chain. It is hard to forecast how firms will react in the presence of many canaries, whips, and sails.

Specifically, iPod had many features, but one of its keys is I-Tunes, which has arrangements with a large set of copyright holders. Those arrangements beg the question: Why did those copyright holders make those deals when they had resisted previous ones? Steve Jobs came along with a credible proposal and a nice design, to be sure, but so had others. Rather, this was a proposal that came *after* so many dead canaries motivated copyright holders to avoid becoming buggy whips to an illegal computer program. Jobs gave them an opportunity to legally make money and at least sail for a while longer. True, so had others, but Job's proposal actually worked in the marketplace.

Said another way, it is hard to forecast when players will actively seek to avoid becoming obsolete and what strategy they will pursue in that situation. On top of that, it is even harder to forecast which of several strategies will work.

Key question

There is something ironic about forecasting modern business with clichés based on events in a prior century. There is also something unsatisfying. These clichés are incomplete, innately vague, and misleading. They also direct attention away

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from key questions about value creation. But what other alternative is there?

Music is not the only industry with many dead canaries. Such events are common in most of the information-intensive industries. Publishing, video entertainment, and broadcasting all have had wrenching experiences in the last decade. Though, remarkably, many firms in these industries are still sailing along.

If you find yourself in one of these industries, resist panic. Remember that

dead canaries are not the end of the story. Consider a few questions: Who is the buggy whip in your industry? How will the sailing ship imitate the new and fight back? Where is the value created by the new, from the beginning of the value chain to the end? Can your firm position its set of skills to be a part of that value chain, no matter what form it takes?

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