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Feature Story

Case Study: Nau Innovating for Social Consciousness

By Alex Slawsby

Can a for-profit enterprise succeed if its main innovation is valuing social consciousness as much as shareholder returns? The question is particularly relevant in a time of high gas prices and a growing sense that our current consumption of natural resources is simply unsustainable. The founders of Nau, a fledgling retail outerwear company, believed the answer to this question to be a resounding “Yes.”

Built with an unprecedented level of environmental, social, and human-rights consciousness, by April 2008 Nau was an underground success on the West Coast, opening five stores and a website selling critically acclaimed clothing collections. Then, at the beginning of May, Nau’s board of directors voted to shut down the company.

Viewed through Innosight’s lenses, Nau’s promise becomes clear—along with the perils that led to its downfall. Nau had a reasonable business model built around a well-defined job-to-be-done. But as will become clear, Nau didn’t follow an emergent strategy. And Nau’s management discovered that a business model that looks good on paper doesn’t always translate into immediate profits.

Ultimately, a lack of careful execution and a push for quick expansion doomed Nau’s first incarnation. But the story of Nau is still unfolding. Nau 2.0 is currently underway, and that venture appears to have a better chance of success.

The Launch

Nau (Maori for “welcome”) began with the dream of Eric Reynolds, an outdoor enthusiast entrepreneur, co-founder (in 1974) of outerwear brand Marmot, and subscriber to the belief that a single individual can have an impact on the world. In the summer of 2003, Reynolds conceived of Nau, a sustainable clothing company that would donate a significant portion of its revenue to nonprofit organizations.

Specifically, Reynolds envisioned customers presented with a unique question at point-of-sale: “To which organization should ‘my five percent’ go?” By giving five percent of its revenue to nonprofits, Nau would break new ground. (For comparison, the most generous corporations give away one percent of revenue, with the average corporation giving less than .05 percent.)

In the summer of 2004, Reynolds began recruiting a management team. In 2005, he hired a number of individuals away from Patagonia, a firm commonly considered a leader in outerwear, social consciousness, and charitable giving. Chris Van Dyke (son of actor Dick Van Dyke), an ex-Nike employee

and ex-Patagonia vice president of branding and marketing, was hired as CEO. Mark Galbraith, a successful Patagonia designer, joined Nau as lead designer. Patagonia's director of marketing, Ian Yolles, joined as vice president of marketing.

Nau's commitment to sustainability framed the constraints within which Galbraith worked as he designed Nau's clothing collection. Galbraith avoided any materials that weren't renewable or recyclable while seeking a balance between performance, sustainability, and style. As a result, nearly all of the 30 fabrics utilized in Nau's clothing collection were custom materials developed specifically for Nau.

The fabrics—made from corn, recycled plastic bottles, 100 percent organic wool, and recycled synthetics—set a new standard for sustainability. Nau's clothing creation process led to a number of innovations, including the elimination of solvent-based adhesives. The efforts of Galbraith and his team were rewarded—Nau's first collection received critical praise from such disparate sources as *Men's Vogue* and *Rock and Ice* magazines. One downside: The fabric choices greatly constrained the range of colors possible, resulting in mostly drab hues.

Nau's custom fabrics also required that customers pay a substantial premium for their clothing, but Nau's management team did not see this as a problem for its target customer segments: the affluent "multidimensional outdoor athlete," the "new activist," and "creatives." The Nau team expected that their customers' passion for sustainability would overcome any price resistance.

Nau's commitment to sustainability was enforced as carefully in its stores as in its clothing. The company eschewed traditional 4,000-square-foot retail stores for a 2,000-square-foot "Webfront" concept. The store spaces were long and narrow, designed purposefully with limited space for inventory that would be restocked twice weekly. Nau also offered customers a 10 percent discount and free shipping if they were willing to try clothing in the store, and then purchase it online.

Assembled from a modular, prefabricated design, each store featured energy-saving lighting and leveraged materials such as reclaimed timber, toxin-free fiberboard, and recycled resin (for mannequins). Customers were offered a choice of 12 carefully selected environmental, social, and humanitarian nonprofit organizations, and five percent of the purchase price was donated to the chosen group.

Nau's values extended to its real estate leasing strategy as well—Nau only leased store space that was LEED-certified (LEED certification indicates environmental- and health-consciousness standards). The company also set a minimum age limit for the workers at its overseas material suppliers.

Nau's principles included the constraint that the highest-paid worker within the company could only earn a maximum of 12 times the lowest-paid employee's salary. Finally, Nau did not invest in marketing or public relations beyond a series of websites, choosing instead to rely on word-of-mouth, a more "sustainable" form of marketing in the eyes of Yolles and his team.

While Nau managed to be remarkably consistent in the infusion of its values into its processes, one of the key factors in its eventual downfall was that the company had a difficult time securing financing. At least one investor's legal counsel balked at a contract clause that placed the "needs of society" equal to the "needs of shareholders," but Nau held firm.

Nau's business plan called for it to earn more than \$250 million in revenue in 2010 and to achieve profitability in 2009 or 2010, figures based on opening four stores in 2007, 20 stores in 2008, and 150 stores by 2010. To build the necessary momentum toward these goals, Nau needed at least \$51 million in funding.

By the end of 2006, Nau had raised \$24 million, largely from "super angels," individual investors who included the chairman of Seagate Technology, Steve Luczo, and Stephen Gomez, Nau's chairman and a former Nike corporate vice president.

Despite the fact that Nau had only reached half of its funding goal, the first Nau store opened in Boulder, Colorado, in January 2007, with three more successful store openings following during the year in Tualatin, Oregon; Chicago; and Bellevue, Washington. Nau completed its first year of operation in 2007 with 92 employees, four clothing collections, and four stores.

In March 2008, Nau donated \$223,000 to its 12 nonprofit organizations, implying 2007 sales of around \$4.5 million. In mid-April, Nau opened its fifth store in Los Angeles. In late April 2008, despite raising an additional \$10 million in funding, Nau announced that it would scale back its store-opening plans to a total of five in 2008, down from an already-reduced projection of 10.

Finally, on May 1, Nau's board of directors voted to "wind down its business operations," citing "insurmountable financial obstacles." All inventory was liquidated at 50 percent off and the stores were closed. Post-mortem interviews with Nau's executives suggest that the company was approximately \$5 million to \$10 million short of the funds needed to sustain its operations and open additional stores towards its goal of profitability.

In the days following the decision, many customers commented on Nau's blog, expressing sadness, frustration, and anger and questioning why Nau had failed.

Nau: The Post-Mortem

Looking at Nau through Innosight's business model innovation framework and a number of Innosight lenses offers insight into how Nau developed such a devoted following as well as how the management team might have been able to ensure a brighter future for their company.

Innosight believes that business model innovation is one of the most powerful ways for organizations to achieve new growth. By carefully adjusting business model components—the customer value proposition (the offering itself), the profit system (how the company creates value for itself), key resources (the critical things required to deliver on the value proposition), and key processes (how the company organizes and acts to deliver on the value proposition)—organizations can build the type of competitive advantage necessary to create truly transformative growth.

Nau's business model looked good—on paper, at least. But Nau's impatient push for profits made it hard to really validate whether the business model would in fact work, and shut all opportunities for learning.

Nau pulled the customer value proposition lever expertly. The company created potentially positive solutions to a number of emotional, social, and functional jobs-to-be-done. The sustainability of Nau's operations and products set a new standard of satisfaction for the emotional job "Feel good about

the environmental and social consciousness of my clothing.” Nau’s clothing also satisfied the social job “Convey to others that I prioritize the sustainability of my clothing over its color and flash.” And, as lauded by *Rock and Ice* magazine, Nau’s clothing also satisfied myriad functional jobs related to comfort and technical performance.

Since its sustainable materials carried up to a 20-percent price premium over more commercially available materials, Nau had to pass the premium along to customers. But Nau’s management team was correct in assuming that the high quality and the redeeming social and environmental value of its clothing justified that premium in the eyes of customers —as long as the economy was robust enough that sufficient customers could afford it.

And Nau broke new ground with its “Webfront” stores by implementing a retail business model that required lower capital and operational expenditures than a traditional retail store model.

But there was a significant downside to Nau’s profit-system choices. Innosight recommends that new ventures “be patient for growth, impatient for profit.” Nau’s management expected the company to have 150 stores in operation by 2010, but did not expect profitability until 2009 at the earliest. Growth was thus essential to profitability, creating a significant risk of failure if the company could not reach its early-stage funding goals.

Innosight also recommends that new ventures pursue an emergent strategy, to take small steps by conducting inexpensive tests of its key assumptions about the new market. When the test results are in, the venture can analyze the results, adjust its strategy accordingly, and then conduct additional tests. This careful approach helps new ventures optimize for success while avoiding huge, potentially fatal resource commitments.

In Nau’s case, an emergent strategy might have enabled the firm to consume its funding more slowly while developing an optimal strategy. Instead, the team decided to go straight to launching full Webfronts rather than testing the clothing line in a department store or opening a single, test-store concept.

The root cause for the failure of Nau 1.0 seems to have been that Nau’s business strategy and some of its business model decisions proved questionable. By following a more careful, emergent strategy and by focusing on profitability before growth, Nau’s executives might have been able to strike a better balance between vision and execution.

Nau 2.0:

On June 24, 2008, Nau’s fortunes turned around. Horny Toad Activewear, a Santa Barbara-based lifestyle clothing company, stepped in to buy Nau’s assets with the goal of re-launching a modified version of Nau by late summer. While “Nau 2.0” is just beginning to emerge, early signs suggest that the re-launch will follow a strategy more closely aligned to that which Innosight would recommend for success.

Horny Toad creates and sells men’s and women’s lifestyle and outerwear clothing. Horny Toad’s tagline, “every day is an adventure,” introduces a humorous, irreverent, socially-conscious approach that lies at the core of everything the company does. Indeed, Horny Toad and Nau have much in common. Horny Toad’s stated commitment to “lightening its environmental footprint” and to

supporting both the community and organizations that improve the world immediately suggest synergies.

Much as Nau showcased the organizations chosen for customer contributions, the Horny Toad website highlights its support for causes ranging from helping adults with developmental disabilities to supporting clean energy, with a wide range of other environmental and community-activist organizations in between.

However, in contrast to Nau's commitment to sell its clothing solely through a growing number of its own stores, Horny Toad has only two stores and sells its clothing in a wide variety of online and brick-and-mortar retailers. In addition to a store in Freeport, Maine, Horny Toad runs the "Lizard Lounge" in Portland, Oregon, complete with music, wireless access, coffee, and ping-pong. Horny Toad clothing has been lauded for its hip funkiness by print publications and blogs alike.

Recognizing the similarities between Nau and Horny Toad, Horny Toad felt that it would support its motto "do well by doing good" by purchasing Nau's assets and hiring its leadership to help re-launch the clothing line. In addition to providing financial support, Horny Toad will sell Nau clothing in the Lizard Lounge and, in a break from Nau's original strategy, through other retailers as well. And, with Horny Toad's support, a percentage of Nau sales will continue to go to worthy non-profits.

According to Nau's "Thought Kitchen" blog, shortly after the relationship was finalized Nau leadership began working to resurrect relationships with company partners and to put together a Fall/Holiday clothing collection in time for October availability.

While the Nau clothing line will continue to deliver on the "Beauty, Performance, and Sustainability" commitment through the use of environmentally friendly and socially conscious materials and methods, a quote from Nau's website gets to the heart of why Nau 2.0 may very well succeed while 1.0 failed:

"As we move forward with the re-launch of Nau, you'll definitely recognize us, but we intend to do some things differently...We're going to start small and grow the business organically in relationship to the demand for our product. We'll continue to sell our product at nau.com, but we're also going to partner with select retailers who share our common goals. We will not be operating our own retail stores, at least not in the near term...So stay tuned. We're coming back. Smaller and a little wiser, our ambitions tempered a bit by the experience, but our passions most definitely intact."

Nau 2.0's strategy will most likely enable the brand to focus more closely on identifying the product, marketing, and channel mix that appeals most to customers, without worrying about the pressures of rapid expansion. Particularly in a new venture, vision and passion tempered by patience and pragmatism is the way to go.

This approach is also particularly appropriate in these tough economic times. Satisfying social and emotional jobs-to-be-done around environmental friendliness and social consciousness may be enough to earn significant premiums for clothing in a strong economy. However, during an economic downturn, financial reality frequently wins out as consumers prioritize value over the satisfaction of some social and emotional jobs.

For example, since the economy began to sour, Whole Foods Market has seen some of its consumers move their food spending to more budget-friendly alternatives. Whole Foods has responded by shifting its marketing strategy from a focus on quality and environmental friendliness to an emphasis on discounts, store brands, and product value as it attempts to keep its customers.

Even if Nau 1.0 had received enough funding earlier in 2008 to continue operations, economic conditions would likely have pushed the enterprise to the breaking point, as has happened with many other fledgling clothing boutiques.

When Nau 1.0 launched, its management team made an impressive commitment to the company's values, taking steps such as tracing the wool used in its clothing back to the sheep to ensure that they were well-treated and implementing a "sustainable" word-of-mouth marketing strategy. To launch the new Nau, it is clear that the team has had to compromise on some of its values, such as the control provided by company-owned storefronts, a grassroots-only marketing effort, and potentially the level of contribution to nonprofits.

In the end, however, the Nau 2.0 strategy, with the help of Horny Toad, may be the key to enabling the company's sustainable operation. Making their operations as sustainable as their values will help ensure that Nau is able to be a force for good in the world for a long time to come.

For more information:

<http://www.nau.com/coming-this-fall.html> (Accessed 8/29/08, 1:41pm)

<http://www.chicagobusiness.com/cgi-bin/mag/article.pl?articleId=30412>;

<http://ozarksfirst.com/content/fulltext/?cid=50781>

Innovator's Insight

In Need of an Innovation Fill-Up

By Stephen Wunker

Recent news that ConocoPhillips will be selling all 600 of its U.S. service stations for \$800 million comes as little surprise. Oil companies are facing extraordinarily attractive investment opportunities in exploration and production, and the service station business has been tightly squeezed between rising wholesale costs, inability to pass along those cost increases, and falling demand as driving declines.

Clearly the station's buyer—closely held PetroSun Fuel—sees it differently. We do too. In our view, PetroSun Fuel is buying cheap assets with lots of innovation headroom.

While “stick to your knitting” is a popular business maxim, it is of course common to find diversified businesses. There are several reasons diversification can make sense:

- If the new business can share costs and customers with the core business— in this case, owning both enterprises can provide scale economies, improve distribution, create a better buying experience, and other advantages. This is why many European supermarkets have service stations outside their doors, for example.
- If the new business provides a useful hedge against a core with volatile returns but a need for consistent investment. This explains why many pharmaceutical firms own over-the-counter consumer healthcare brands.
- By diversifying, a firm can hold on to a seemingly unrelated business because it sees substantial headroom for growth and a right to triumph in that arena. This is one reason News Corporation bought MySpace.

Historically, oil companies owned service stations for each of these reasons. The end consumer drove demand, and having direct access to that consumer allowed firms to exercise some control over demand levels while also gaining precise information about what products were demanded where. Profits from service stations could offset volatility in exploration and production. Also, the advent of convenience stores at service stations created a new high-margin business.

Each of these justifications for integration now seems threatened by changes such as improved information technology, more efficient capital markets, and commoditization of the service station experience.

With supermarket-owned service stations now coming to the United States, oil companies face new competitors who may even sell gasoline at a loss in order to drive traffic into their stores. In the UK, pressure from supermarkets is a factor leading to the net closure of 600 service stations per year. The service station business is looking much less attractive than it used to.

So, what might PetroSun Fuel be thinking? We imagine two major justifications for the investment. First, if oil prices decline, the profit margins on service stations may rise, and PetroSun will have bought valuable assets for a song.

Second, there may be much more innovation headroom in this business than oil companies have traditionally assumed. For instance, Fuelcast Media International offers local news, weather, and sports on screens at pumps at a few hundred stations. Fuelcast pays the retailer and shows ads to this highly captive audience. Shell is experimenting with fuel pumps that are activated simply by a swipe of a fingerprint. Dutch inventors have created a robotic arm that finds a car's fuel cap, unscrews it, and automatically pumps gas.

Regional fuel retailer Sheetz differentiates itself through premium coffee and made-to-order sandwiches. Another retailer, Valero, is piloting 5,000-square-foot convenience stores with fully one-third of the space dedicated to fresh food and other perishables.

Oil companies would be well-served by thinking through how well the jobs of their customers are getting done, and whether they can de-commoditize the service station business through new propositions or re-definition of the competitive set.

Looking through this lens, we can imagine how a mother could prefer a certain service station because it offers very fast, targeted entertainment for bored children in the back seat, or how a senior might prefer one with very brightly lit displays. The advent of electric- and fuel-cell-powered vehicles opens further possibilities for using service station real estate in new ways.

Look at how Best Buy reconceived what an electronics retailer could be, and how it escaped industry commoditization in the process. While Wal-Mart and others cut prices ruthlessly, Best Buy rolled out Geek Squad—a service tightly integrated with its retailing business that addressed a wide swath of unsatisfied jobs its customers faced post-sale.

It also became a place to try new videogames. The store is even trying to become a hub for musicians buying electric guitars and other gear. In the process, the company increased revenue 92 percent over five years, almost entirely through internally generated growth. It turned out that electronics retailing wasn't a commodity business at all.

Sometimes a dog business is just a dog business. 3M spun off its floppy disk and magnetic tape business in 1996, and that turned out to be a smart move. But we find it hard to believe that there is little room for profitable innovation in a retail business that hundreds of millions consumers *have* to visit on a regular basis.

When the finance people come knocking, looking to sell downtrodden assets and invest the proceeds in high-flying businesses, lock the doors for a bit. The business may indeed have few prospects. On the other hand, it may support the core business in many oblique but important ways, and it may have far more innovation headroom left to exploit.

For more information:

- "ConocoPhillips Will Sell Its Company-Owned Service Stations", by Brett Clanton, Houston Chronicle, August 27, 2008
(<http://www.chron.com/disp/story.mpl/business/energy/5969574.html>)

- “Finding the Right Job for your Product”, by Clayton Christensen, Scott Anthony, Gerald Berstell and Denise Nitterhouse, Sloan Management Review, Spring 2007
(http://www.innosight.com/innovation_resources/research.html?id=167)

Innovators' Update

A Good Start for Amazon MP3

Amazon's digital music store keeps sailing on the winds of industry changes

Insight #98 from October 2007, "Handicapping Amazon's Low-Cost Music Store," suggested that Amazon might find the results of its then newly launched music download store disappointing. What has happened since?

By Renee Hopkins Callahan

When Amazon launched its Amazon MP3 online music download store in September 2007, we were skeptical. At the time, Apple had sold more than 100 million iPods and iTunes had a lock on the online music market. Amazon MP3 planned to sell music free of Digital Rights Management (DRM) protection—a limited supply, since at the time only one of the four major music labels had agreed to make its music available without DRM protection.

Amazon MP3 seemed unlikely to succeed with a business model focused on undercutting iTunes on price, selling songs for 89 cents instead of 99 cents. We were right that the low-cost strategy would not put much of a dent in the popularity of iTunes. Yet circumstances in the year since its launch have helped Amazon refine its strategy and offer a preview of possible success.

According to NPD Group research released in late July, iTunes remains on top of the music retail pack. It is the largest music retailer in the world and it sells at least 90 percent of digital downloads in the U.S. However, the same research showed that Amazon MP3 has grown to be the fourth-largest retailer of music in the U.S., behind iTunes, WalMart, and Best Buy. That puts Amazon MP3 in second place for online music download sales. And while there's still a huge gap in volume between iTunes and Amazon MP3—with Amazon's share of the market in single digits—Amazon is in the game.

However, Amazon hasn't accomplished that by stealing iTunes customers. Russ Crupnick, an entertainment industry analyst for NPD, said in an April 2008 report that only about 10 percent of Amazon MP3 customers used to be iTunes users, with the other 90 percent likely to be people who had been using other services or were new to digital downloading. Amazon MP3 attracts young adults age 18 to 25, while iTunes' strongest demographic is teens age 13 to 17, another April 2008 study said.

Amazon has likely benefited from winds of change blowing in the music industry. A number of analysts have speculated that the industry sees Amazon as an ally in an effort to break Apple's dominance in digital music.

It would seem counterintuitive that the music industry would want to bypass its richest retail channel. But some of Apple's practices cut profits for the major labels. In late August, the *Wall Street Journal* reported on a growing trend in the music business: labels deliberately withholding some of their music from iTunes.

The article cites several cases in which albums were either not made available on iTunes or were pulled. Why? While consumers strongly prefer purchasing music by song, music label executives, managers and even some artists dislike the iTunes policy that requires that music be made available by the song as well

as by the album, because profit margins for single-song sales aren't nearly as good as the margins for album sales.

Meanwhile, Amazon MP3 lets labels sell music the way they want to. If a label wishes to make an artist's work available only by the album, Amazon MP3 allows it. Some of the music that the labels have been withholding from iTunes is ending up on Amazon MP3.

The DRM issue has worked to Amazon's benefit as well. Apple's iTunes has historically sold DRM-protected downloads. Such encoding means that songs downloaded on iTunes cannot be played on other MP3 devices. Apple has worked to persuade the major labels to drop DRM, though it still seeks to keep iTunes the only source of song downloads for the iPod.

At the time that Amazon MP3 launched, only EMI, one of the four major music labels, had announced it would drop DRM protection on its music. By early January 2008, a few months after Amazon MP3 launched, the three other major labels—Universal Music Group, Warner Music Group, and Sony BMG—dropped DRM.

That meant their music could be made available on Amazon MP3, which does not use DRM, and which features free software that delivers a customer's MP3 file directly to their iTunes library. Meanwhile, according to a May 30 *MacWorld* magazine story, "Sony, Universal, and Warner continue to withhold the unencumbered tracks from Apple, choosing instead to back iTunes's rivals."

Amazon may have more surprises up its virtual sleeve. In late July, *Fortune* magazine reported that Amazon was in talks with MySpace about becoming the social networking giant's download store partner when it rolls out its highly anticipated joint venture with Universal, Warner Music and Sony BMG in September.

If the deal goes through, it puts Amazon in a good position to continue nipping at Apple's heels. According to the *Fortune* report, MySpace plans to let its 120 million users stream entire songs before downloading them.

That potentially changes the convenience trade-off for the MySpace customers in Amazon's favor, because they would be able to buy a song and get it into their computer's music manager, even iTunes, with one click using Amazon's software. Those who wanted to use iTunes would have to leave MySpace and physically go to iTunes to accomplish the same end.

Clearly, we underestimated the desire of other companies to develop a reasonable Number Two to Apple, a position that Amazon MP3 seems to have grown into in the last year. If Amazon can figure out more ways to capitalize on its toehold position in the digital music business, Amazon MP3 might be around for quite a while.

For more information:

More Artists Steer Clear of iTunes by Ethan Smith and Nick Wingfield. Wall Street Journal. 28.08.08 (http://online.wsj.com/article/SB121987440206377643.html?mod=2_1567_topbox&apl=y&r=516482)

"Apple Tops Online Music Vendors, But Amazon Climbs" by Chloe Albanesius, PC Magazine. 05.08.08 (<http://www.pcmag.com/article2/0,2817,2327271,00.asp>)

“Amazon: The Avis of Digital Music” by Devin Leonard. *Fortune/CNN Money*. 31.07.08
(<http://money.cnn.com/2008/07/30/technology/amazon.fortune/>)

“Report: Amazon MP3 Gains Don't Affect iTunes” by Chloe Albanesius, PC Magazine. 16.04.08
(<http://www.pcmag.com/article2/0,2817,2284469,00.asp>)

“Death of DRM Could Weaken iTunes, Boost iPod” by David Kravets. *Wired*. 04.01.08
(http://www.wired.com/entertainment/music/news/2008/01/rip_drm)

A year after iTunes Plus, Apple faces stepped-up competition by
(<http://www.macworld.com/article/133667/2008/05/stateofdrm.html>)

Disrupt-O-Meter: Dash Express vs. Garmin Nuvi

By Renee Hopkins Callahan

GPS device maker Garmin enjoys the lion's share of the multibillion U.S. GPS device market. Yet its stock has tumbled 75 percent in the last year, partly due to fears that the GPS device market is about to be disrupted in a major way by GPS-enabled cell phones. The market shows classic signs of over-serving its customers: According to *Fortune*, Garmin's latest GPS device, the Nuvi 880, "has it all: directions, MP3 player for listening to songs and books, a photo viewer —even an alarm clock ... because these are tough times for GPS makers. Demand is slowing and prices are falling fast, in part due to competition from cell phone manufacturers like BlackBerry maker Research In Motion and Apple."

GPS-enabled phones do not currently offer the gold standard of GPS service: voice-based turn-by-turn directions. But this functionality is predicted to be perhaps as little as a year away from showing up in 3G iPhones. Also, both Garmin and Nokia are developing mobile phones with this functionality (Garmin's Nuviphone is set to debut in early 2009).

Into this climate competitor Dash launched in March the Express, a wifi-equipped GPS device that tracks its users' positions and speeds and then turns that data into real-time traffic information. In June, Dash released a software update and developer API for the Express that permits outside developers to create software to work with Dash. This allows for "mash-ups" that allow Dash Express to perform such services as looking up the cheapest gas prices near you at the moment. How does Dash Express compare with market leader Garmin's Nuvi offering?

Customer:

Dash: New GPS users, commuters and fans of mash-ups (winner)

Garmin: Traditional GPS users who want the latest bells and whistles

Solution:

Dash: An interconnected, send-and-receive device open to outside app developers (winner)

Garmin: State of the art in GPS navigation and add-ons

Business Model:

Dash: Sell devices (\$299) and ongoing \$12/month network fee which edges GPS toward a fee-based service (winner)

Garmin: Sell devices (\$300 to \$1100)

Competitive Landscape:

Dash: If network idea proves popular, subsequent established user base would make concept difficult to replicate (winner)

Garmin: Market leader trying to stave off disruption by 3G mobile phones

More Disruptive: Dash Express. Shipments of GPS-enabled phones are to more than double over the next five years to a \$100 billion market by 2012. And in a year or so, Nokia, Garmin, and the iPhone will likely all offer voice-based, turn-by-turn directions on relatively large screens. At that point Dash Express GPS units may be relegated to the tech-history junk heap. But maybe not. Dash has a great concept, and if Dash is simple enough to use that its rate of adoption grows, that adoption could lead to network growth that would guarantee real-time traffic information. If enough developers take advantage of the fun and freedom mash-ups provide, Dash could become a focal point for a variety of location-based in-car services. Dash could grow a user base that might be reluctant to leave it behind in favor of their phones, which will always offer a smaller, more inferior screen than a dedicated GPS device. Or perhaps

the network idea will be picked up by a competitor with deep enough pockets to replicate it. The only really clear aspect to this is that Garmin's traditional GPS devices are well on their way to overshooting new customers and being disrupted.

For more information (these will be linked throughout the story):

GPS-Enabled Mobile Phone Shipments To More Than Double Over Next Five Years, by Al Sacco, CIO.com, 30.11.07

(http://www.cio.com/article/160700/GPS_Enabled_Mobile_Phone_Shipments_to_More_Than_Double_Over_Next_Five_Years)

Garmin GPS Dominates Consumer, Corporate Market: What's Next? By Al Sacco, CIO.com. 13.3.08

(http://www.cio.com/article/196400/Garmin_GPS_Dominates_Consumer_Corporate_Market_What_s_Next_)

GPS Makers Battle the iPhone by Michal Lev-Ram. Fortune/CNN Money. 08.08.08

(http://money.cnn.com/2008/08/08/technology/GPS_review.fortune/index.htm)

Garmin Risks Getting Lost by Robert Cyran and Fiona Maharg-Bravo, Wall Street Journal. 03.03.08

(<http://online.wsj.com/article/SB121764319385106849.html>)

Garmin Will Delay Launch of First Smartphone to '09 by Shara Tibken. Wall Street Journal 31.07.08

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Dash Wants To Bring Web Mashups To Your Car by Erik Schonfeld. TechCrunch 19.10.07

(<http://www.techcrunch.com/2007/10/19/dash-wants-to-bring-web-mashups-to-your-car/>)

First Look: Dash Express GPS Device Harnesses the Web by Yardena Arar. PC World. 27.03.08

(http://www.pcworld.com/article/143939/first_look_dash_express_gps_device_harnesses_the_web.html)

Dash's Car Navigator Gives Smart Directions, If Others Participate by Walt Mossberg. Wall Street Journal

27.03.08 (<http://online.wsj.com/article/SB120657844534867167.html>)