

**Case 4-5****Destiny WebSolutions, Inc.<sup>1</sup>**

Destiny's chief executive officer (CEO), Lucinda Duncalfe, lingered in a conference room after meeting with the senior staff to review a proposal that soon would be submitted to a prospective client. She thought Destiny had a good chance of winning the new business even though the small company probably was competing against giants of the consulting industry such as Andersen Consulting and IBM Global Services. Referrals from satisfied customers and a growing reputation were translating into increasing success for Destiny as the end of 1999 approached. We're gaining momentum, Duncalfe thought, smiling. What pleased her most about this was the fact that the new successes had come so quickly after what could have been a traumatic change of direction for the company.

In February, Destiny Software, a product company, had become Destiny WebSolutions, a Web consulting services firm. Duncalfe had pitched the plan to the board of directors in late 1998, and they had agreed that it should be undertaken while the company was operating from a position of strength. The shift represented the company's third change of identity in three years. Destiny's ability to target business niches, grow into them, and then shift quickly to larger targets had become a core competency. This kind of corporate agility was, Duncalfe believed, a major reason for the company's recent successes, but she was the first to admit that frequent changes posed challenges.

One such challenge had been a focus of the just concluded meeting: how to answer the part

of the client's request for proposal (RFP) that asked what kind of "methodology" Destiny planned to use in completing the project. Destiny's competitors, especially large consulting firms, had a ready answer to this question. They used methodologies—collections of formally defined standard processes—in all the work they did for clients. Although their methodologies were different, all had common characteristics that were comfortably familiar to clients.

Destiny, in contrast, relied on a collection of "patterns" for structuring company activities. Patterns were not exactly standardized processes, but they were intended to promote some of the advantages of standardization, such as consistency and reliability, while retaining the flexibility to address new and unusual circumstances. The concept of a pattern was derived from the ideas of the building architect Christopher Alexander. Destiny's use of patterns had begun before its transition to a consulting company, and the work on patterns had continued to evolve since that time.

Duncalfe saw pattern-based management as an innovation, potentially a very important one. The company's employees, especially some members of the senior staff, had enthusiastically embraced the concept, developed it, and now seemed to be using it productively; that was behavior she wanted to encourage. Unfortunately, though, using patterns to do business was difficult to explain. Prospective customers were not comfortably familiar with the approach. This mattered now that Destiny was a consulting firm, especially when RFPs asked specific questions about methodologies.

At the meeting, the group had agreed on precise wording to answer the RFP question; they had also agreed about who would explain the answer if questions about it came up in a presenta-

tion. But the issue of how to talk about patterns with clients—or with investors, for that matter—was a general one. Although Duncalfe believed in the approach, she had to admit that adopting a more conventional methodology might solve some problems.

As she stood to head back to her office, a variety of questions assailed her. Was the pattern approach really the right way to go? Her employees were spending a good deal of nonbillable time building infrastructure to support this way of doing business. Her best software architect was building a "Pattern Language Server" to act as a repository for the company's patterns. Moreover, Destiny was truly breaking new ground here. There was nowhere to seek information or advice about whether the pattern approach would continue to be useful as the company and its projects grew larger. In the long run, would it be an expensive distraction that might even cause the company to lose business? Or would it be a source of competitive advantage that other consulting companies would have a difficult time replicating?

**Background**

When Lester Shuda founded Destiny in early 1994, he was acting on a long-standing desire to create something interesting and different. His background included two degrees in computer science and two jobs at start-up companies. But throughout those experiences his inclination to set off on his own—to build something—remained strong. In 1990 he took a step toward independence by becoming a successful freelance software consultant. Destiny came into being as an extension to that business; he had little inkling of what the company might ultimately become.

**Destiny's First Corporate Transition**

In 1995 Shuda began an engagement with the Vanguard Group, a large financial service company in the Philadelphia area (where Destiny was also based), to help build a content area on

America Online (AOL). He became the de facto technical lead on the project and began to think of consulting at the intersection of online systems and financial services as a potential focus for Destiny. When the launch on AOL went well, Vanguard began thinking about doing something similar on the Web. Shuda offered a proposal: Destiny would build the required Web system architecture for Vanguard for a discounted price in exchange for the rights to resell the resulting products to other companies. Vanguard declined this arrangement but continued to involve Shuda in architecture design. Despite the rejection of his proposal, Shuda continued to ponder the idea of leveraging his consulting experiences into products.

Destiny's only two employees, Shuda and Russell Holt (who had come on board in late 1994), began actively focusing on product development. Shuda described their process in those early days:

Russell was building prototypes, and we were kicking around ideas. I would come home, and we would talk about what he was working on. He started building a Web server; then Netscape came on the scene, and it became pretty clear that Web servers weren't the market to pursue. But we had this work we'd done, and we applied for Ben Franklin technology funding with the idea being that we would take the Web server stuff and extend it into a tool kit for building financial services systems.

They gained \$25,000 from the Franklin fund and began using that money along with consulting revenues to buy equipment and progress product concepts.

In September 1995 they got an unexpected break. AOL wanted to establish a Bank of America (BoFA) content area that would include home banking. Remembering Shuda's work with Vanguard, AOL contacted him and asked him to help BoFA. Because of the work Destiny had been doing for the Franklin application, Shuda and Holt felt they had a significant start on what they

This case was prepared by professor Robert D. Austin and Doctoral Student George Westerman.

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would need to do the BofA job. Shuda again proposed retaining the intellectual property rights to product ideas resulting from the work. BofA agreed, subject to the system being up and running by June 1996. With funds from the deal, Destiny ramped up to a team of seven with the addition of five contractors by early 1996. The project, although intense, was successful. Destiny had made its first transition, from a consulting company to a product company. Shuda began to look for investors.

### New Leadership

In September 1996, although outward appearances suggested increasing success, internally Destiny was reaching a crisis point. Shuda was becoming overwhelmed. First USA (yet another great client catch) had engaged Destiny to help it develop an interface for online credit card applications. At the same time Shuda felt that he needed to devote full attention to refining the business plan and meeting with the prospective investors who had begun to show interest. It was too much for one person to manage; increasingly he was being drawn away from what he believed he was best at: designing solutions for clients. He turned to his board of directors (then composed of friends and parents) for help in finding a businessperson to join Destiny, someone who could take over the duties associated with growing the company.

As part of the search for business help, Raef Lee, a board member, contacted Lucinda Duncalfe, a marketing executive who was at another information technology (IT) company and had a background in financial services. At first the conversations were about Duncalfe taking a role in marketing for Destiny. After Shuda and the rest of his advisers met her, however, they began to see her as a possible CEO. Her candor and ideas had impressed them, and her qualifications included rapid advancement in the financial services industry and an MBA from Wharton. Extensive discussions between Shuda and Duncalfe convinced both of the similarities in their

objectives and worldviews, and in December she became Destiny's CEO.

Duncalfe immediately focused on growth and financing. Consulting jobs were coming in from BofA referrals and some additional funding (\$100,000) had been obtained from the Franklin fund, but the situation remained tenuous. People were working very hard at heavily discounted salaries; making payroll was difficult in some months. In May 1997 Duncalfe's work with investors paid off when the company received private venture funding of \$1.4 million. The cash influx enabled a move into the company's first real headquarters space. Hiring continued to support the additional business. Notably, Raef Lee was hired as the product vice president. Throughout 1997 the client list grew to include Advanta, GE Capital, and Lucent. By fall 1997, the company had more than 20 employees and was relatively flush with consulting business, mainly in the home banking space.

### A Change in Product Focus

Duncalfe realized, though, that there was a problem with home banking. It was attracting a lot of attention and had begun to contain some relatively heavyweight players, such as Edify and Security First, both financially strong and with useful partnerships already in place. Giants Microsoft and Intuit also appeared interested, although their intentions were not yet clear. These facts, combined with lack of progress in selling product licenses, prompted a reexamination of Destiny's mission. Four people—Duncalfe, Lee, and newcomers Mike Kirschner (a product manager) and Reade Frank (marketing)—set aside three weeks for a detailed exercise aimed at determining a new and more viable focus for the company. Duncalfe described the session:

We worked this incredibly intensive, even by start-up standards, three weeks. And we realized toward the end of this that we had three of the top ten credit card issuers on our client list and that we were the only ones who had any expertise in credit card customer

acquisition technologies. The idea of acquiring credit card users online to generate revenues looked like a lot easier ROI argument than the cost reduction arguments we had been using for online servicing systems.

Within a month Destiny shifted its focus entirely from home banking to credit cards. Marketing dollars were diverted, as was the sales team, and press efforts were also turned in that direction. Frank, who had established excellent relationships with Wall Street analysts and editors of financial services industry publications, pushed the story hard, and Destiny was able to differentiate itself from the fray of financial services new business activity.

### "Productizing" Destiny's Offerings

The company continued to sell new business to existing customers and continued to build the client list. At the same time, it was trying to make use of what it had learned from its experience in the home banking product business. Shuda explained some of the factors that had led to difficulties:

We found ourselves bidding against Edify and Security First, and ours was a tool kit approach where we would customize the framework to build a system for the client. It was part software, part service, but we found that most clients just wanted to buy a package, plug it in, and go. But we hadn't packaged it. The product wasn't mature enough. And anyway, we felt that those packages were being commoditized and we needed something much more specialized for better profits. In the credit card space, there weren't as many competitors, and systems that were built there were more customized.

Shuda, Lee, and their development team retained the tool kit approach to support the customization that the credit card space demanded, but they also worked on productizing the components of the tool kit. The results were more clearly defined products. Lee described some of the component products:

The first product is designed to sit on a businessperson's desk, to allow that person to build a credit card application for the Internet, determine how it should look, with all the validation logic behind it, and to let them roll it into production. A second product is aimed at management—what cards you have out there, what terms and conditions apply to each of them, interest rates—all of that. And the third product gathers data in real time about how people are using the website. When solicitations go out by mail—and there are 3 billion of them per year—the card issuer has no idea how that mailing is received. Well, with our product we know exactly where they went, what pieces they filled in before dropping out, where they got confused, all of which is very interesting to issuers.

Despite intentions to become a product company, Destiny's management realized that the company had not yet fully achieved that status. Over the next year they worked on products and expanded their service offerings into the area of private banking, acquiring Northern Trust as a client. In September they secured additional financing of \$2.5 million.

### Another Transition

Late in 1998, soon after the funding, Duncalfe began to feel that another change of focus might be in order. Destiny's products had been very successful in allowing the company to move quickly into spaces where consulting and customization were needed, but the technology in the credit card and private banking spaces seemed to be commoditizing, just as the home banking space had before. Competitors were beginning to have offerings available to do much of what had seemed novel in Destiny's offerings of a year before. Duncalfe described her thinking at the time:

We were ahead on all of our targets, but I was getting a gnawing feeling in my stomach. The big guys, IBM, etc., were coming out with horizontal products that were stripping away our products' value.

**EXHIBIT 1**  
Internet Services Market Forecast (Sbillions)

	2000	2001	2002	2003	2004
Total IT services	285.7	314.2	345.7	380.4	418.6
Systems integration services	161.8	190.0	223.0	261.7	307.2
Internet integration services	22.7	30.9	42.0	57.1	77.7

Source: Adapted from Yankee Group reports.

The real sustainable advantage the company had, reasoned Duncalfe, was the ability to stay ahead of the commoditization curve, to continue to provide high-margin customized services in spaces where commoditization had not yet arrived. Through increasing interactions with clients up to the CEO level, she had developed a greater appreciation of how challenging the Web world was for established financial institutions, most of which were mired deeply in complex legacy systems and MIS mind-sets. Helping clients adapt to the new economy, helping them understand and fend off threats from new entrants and new business models, looked like a growing source of high-margin business. Duncalfe was hearing encouragement in this direction from client executives: "They were saying, 'What I really love is that you have understanding of and respect for my particular business, but you are also *of the Web*.'"

Acting on this thinking, Duncalfe began working on the case for a full-fledged return to the consulting business, with a much broader focus than the one Destiny had originally pursued. In February 1999 the board agreed to support the transition. Destiny had redefined itself yet again.

**IT Consulting and the Internet**

The IT consulting/systems integration industry was worth over \$100 billion in 1998 (see Exhibits 1 and 2). The industry was global, but many of the

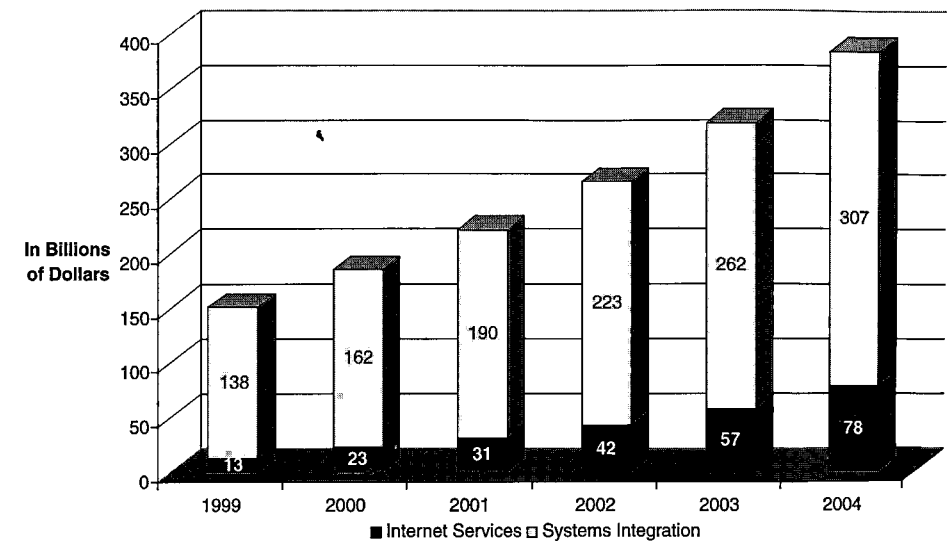
players were regional in scope. Hundreds of firms competed for a share of client revenue and mind-share, and the two top players (Andersen Consulting and IBM) together accounted for only 11 percent of industry revenues.

The IT consulting industry's large traditional players struggled to adapt to the changing IT environment of the late 1990s. The Internet was rapidly making existing skills in mainframe and client-server development obsolete. These firms needed to unlearn old ways and adopt new methods for selling, managing, and delivering projects. For example, large software package implementations were replaced by the delivery of sets of small custom-coded applications. COBOL programming was replaced by C++ and Java. Highly structured analysis and design methods gave way to "learn as you go, fix as you can" approaches. Large teams of specialists gave way to smaller teams of people with interdisciplinary skills.

Another major change was the role of IT in the corporation. IT previously had been considered a back-room support operation. In the early 1990s, with the surge of reengineering-led IT projects and enterprise resource planning (ERP) installations, IT gained new currency as a way of providing competitive advantage. The Internet raised the possibility that IT would become a primary way in which customers and suppliers communicated with a company. Building this kind of e-commerce capability could mean re-

**EXHIBIT 2**  
Projected Demand for Internet Consulting Services in the United States

Source: Adapted from Yankee Group reports.



working parts of a company's business model. As a result, responsibility for e-business projects had begun to migrate from IT to line managers. By 1999 the typical e-business engagement had grown to \$1 million to \$2 million, with the potential for follow-on business.

An important aspect of the e-business environment was its newness. Clients needed help in understanding the strategic aspects of the Internet. Strategic consulting involved rethinking the business model, helping the client with structural issues, and planning the rollout of the new subsidiaries and businesses. Strategy work provided higher margins and allowed consulting firms to build relationships at the highest levels of their clients' organizations. Tying this to delivery capability provided clients with a one-stop shop for e-business enablement.

**Categories of Internet Consultants**

Five types of companies provided Internet consulting services:

*Systems integrators* specialized in large system implementation and integration projects. These large firms tended to

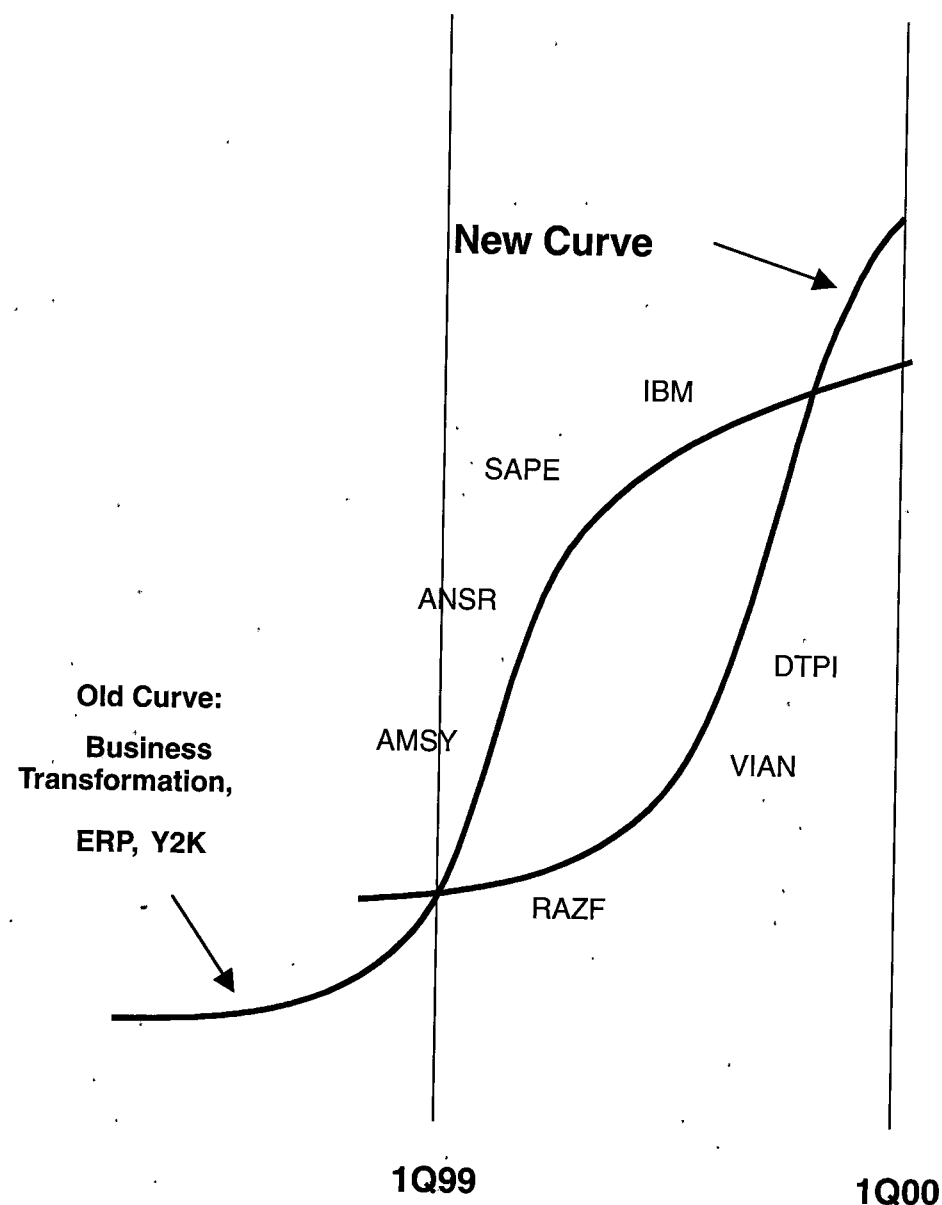
conduct higher-priced projects where they could leverage their scale. While the category as a whole provided offerings in the entire range of needs, individual firms tended to specialize in either technology or strategy. Examples included Andersen Consulting, Sapien, and IBM. Older firms in this category were working to reinvent themselves by spinning off separate e-business consulting divisions, acquiring smaller firms that had e-business experience, and using aggressive hiring programs to acquire Internet capabilities.

*Web design firms* tended to be smaller undifferentiated firms that emphasized technical delivery with little focus on business strategy. Most of the estimated 4,500 firms in this category were launched specifically for the delivery of Web-enabled applications.

*Interactive agencies* entered the industry from advertising. They touted their creative design, branding, and marketing expertise. To these firms, website design and development were a natural extension of the services they already offered to their clients. Notable

### EXHIBIT 3 Traditional and Internet Consulting Segments

Source: Adapted from multiple sources.



IBM = IBM; SAPE = Sapient Corporation; ANSR = AnswerThink; ANSY = American Management Systems; DTPI = Diamond Cluster International; VIAN = Viant Corporation; RAXF = Razorfish, Inc.

firms in this category included Agency.com, Razorfish, and ModemMedia.

Management consultants viewed Web strategy as an extension of their traditional business strategy roles. They could use their

powerful brands and traditional high-level relationships to move into the e-business space but rarely went beyond strategy into actual application development. Examples included McKinsey and Boston Consulting Group.

Pure Internet players constituted a new segment that crossed boundaries. Firms in this segment, including Diamond Technology Partners, Viant, and Scient, used a combination of creative and strategic talent to develop e-business strategy and messages. They also delivered applications either by playing a general contractor role or by using their own development staff. The firms had different strategic positioning and messages, with some focused on strategy and design while others emphasized their technical skills.

#### Market Reaction

IT technologies tended to follow S-shaped curves (see Exhibit 3). While traditional services continued to represent a large proportion of total industry revenues, the curve was beginning to flatten. Meanwhile, e-business services, while relatively small, were beginning to take off. Growth in e-business consulting was estimated to be nearly 60 percent per year, while more traditional IT consulting would deliver only 10 percent to 15 percent growth.

By 1999 pure-play consultants and other firms that were “born on the Web” were well ahead of their more traditional peers. But large systems integrators and other traditional consulting firms were rapidly building capability. They were leveraging existing client relationships to build e-business qualifications. They planned to tackle the larger, more complex e-business projects that were just beginning to emerge. In so doing, they hoped to regain share from the upstarts.

#### The Pattern Language Server

Each pattern is a three-part rule, which expresses a relation between a certain context, a problem, and a solution.

—Christopher Alexander<sup>2</sup>

<sup>2</sup>Christopher Alexander, *The Timeless Way of Building* (New York: Oxford University Press, 1979), p. 247.

The concept of a “pattern language” is central to a theory of architecture developed by Christopher Alexander. Since its introduction, Alexander’s work has found resonance in fields far from its origins, including, in the last few years, object-oriented programming (a Web search on “pattern language” returns a multitude of entries).

#### Patterns and Pattern Languages

A pattern, in Alexander’s use of the word, is an unchanging and repeating element of a situation or structure. Even though the pattern itself is unchanging, no two specific examples of the pattern are identical, nor should they be. Alexander uses the example of an oak tree to demonstrate how the unchanging can coexist with the unique: All oak trees have recognizable similarities (patterns) in the twistedness of their trunks, the shape of their leaves, and so on, yet no two trees are exactly the same. For Alexander, an object (e.g., a company) is dynamic and alive, able to adapt and extend itself successfully in its surroundings, only if it retains both its unchanging patterns and its tendency to produce uniquely appropriate responses to particular circumstances.

In combination, patterns form languages that can be used by many people. A pattern language is a system of patterns that can combine to produce a rich variety of important outcomes, much as a word-based language can produce a variety of sentences, paragraphs, and books. In an organization, a pattern language might be composed of the meaningful choices that an organization is capable of making. As with expressions in word languages (e.g., sentences), organizational expressions in pattern languages can vary in their quality, that is, their suitability for achieving their intended objective, aesthetic value, and so forth.

Just as people can become more adept at using languages made up of words, organizations can gain familiarity and expertise in the use of their pattern languages. That is, the use of patterns does not require a specialist. However, people vary in their expertise in the use of pattern languages. The example of how master