

3. What sort of business intelligence could Coke gather from its My Coke Rewards Web site? How could it use this information for customer relationship management activities?
4. Visit Coca-Cola's Facebook page. Can you buy Coke products there? What social media tools are present that allow you to communicate with Coca-Cola?
5. Now, visit Pepsi's Facebook page. Compare and contrast it to Coca-Cola's Facebook page. Which has more eye appeal? Which seems to have more activity? Why do you think this is true?

CLOSING CASE STUDY TWO

The Business of Social Media and Making the ROI Case

So, what does social media mean for a business? How can a business take advantage of social media? How can a business measure the benefits of its social media strategy and quantify its return on investment (ROI)? These are the very questions with which businesses are wrestling. Social media as a business tool is still very much in its infancy. Some businesses, oddly enough, haven't yet taken the leap into the social media space. However, by 2012, eMarketer predicts that 88 percent of all businesses with at least 100 employees will use social media within their marketing strategies.

Let's look first at how to measure the ROI of a social media strategy. Return on investment (ROI) is another great financial tool for you to learn; it simply compares benefit to cost. There are definitely costs associated with a social media strategy. Just a few of those would include hiring a person to keep content fresh on a Facebook page, hiring a person to provide timely responses on a company blog, hiring a *Twitter jockey* (a person who focuses on the use of Twitter to communicate with customers, sponsors, business partners, and the like) to send company tweets about specials and new products/services, and so on. Below are some ways to measure the benefits of a social media strategy.

1. **Bottom Line Revenues**—This is a key indicator. After implementing a social media strategy, can you tie increases in revenue to that strategy? If you create a Facebook page for selling your products/services, what revenue are you now deriving through your Facebook page? Have revenues through other outlets (your Web site and your physical store) stayed the same or declined by the amount you now receive through your Facebook page?

2. **More Analytics**—Social media represents another customer touch point. At each touch point, you can gather invaluable information for making better decisions. After visiting your company blog, to what sites do your customers go? How long do your customers spend on your Facebook page looking at but never buying your products? For those who have friended you on Facebook, how many have subsequently purchased something? How many are repeat customers? How many people tweet "bad" things about your company? Is that increasing or decreasing?
3. **Increased Traffic**—An important goal of social media is to drive traffic to your organization. After starting an extensive Twitter campaign (with tweets including your Web site or Facebook address), how much more traffic are you now seeing? After creating a Facebook presence, how many people are going from your Facebook page to your Web site to buy merchandise?
4. **More and Better Relationships**—Business is about relationships. Has your social media strategy allowed your organization to create relationships with new customers, suppliers, and business partners? How often do you use social media to engage these people in conversations? (This is a surrogate measure for the quality of the relationship. The more you talk to someone the better the relationship.)
5. **Increased Brand Awareness**—Brand awareness growth can be an important focus for social media efforts. How many new customers did you gain after creating a social media

presence? How many people are talking about your organization via Twitter? How many views on YouTube are you getting for your infomercials?

For your social media efforts to be successful, you must carefully determine your social media strategy. Now, strategy will be different for each organization, but below we list a few steps to success using social media that any organization can follow.

1. **Clearly Identify Goals and Objectives**—Of course, this is true for any business initiative. As Yogi Berra once said, "If you don't know where you're going, you might end up someplace else." Explicitly identify your goals; don't say "increase in sales," but rather say "increase in sales by 10 percent."
2. **Think Quality, Not Quantity**—Again, another solid truism for any business initiative. Quality will create deep and meaningful relationships with customers and business partners, and that translates into long-term, sustainable profits.
3. **Build Compelling Social Media**—Present important information in eye-appealing and eye-catching ways. Use images to tell your story. Don't blog or tweet if you have nothing new to say; find something new to say and reach to your audience in a compelling way with your message.
4. **Use Social Media as a Market Research Tool**—Gather feedback using the many Web 2.0 technologies. If you're the only one talking, the communication is a one-way street. Enable

your customers to talk back and share their experiences, likes, and dislikes.

5. **Take Advantage of Analytics**—Gather hard data on every social media communication. Even if your organization doesn't currently use some of that data, store it for future use. Data is king—don't ever throw it away.^{20, 21}

Questions

1. Let's suppose your current annual sales are \$1 million. You implement a social media strategy and begin generating \$200,000 in revenue through your Facebook page. At the end of the year, your sales are still \$1 million. Was your social media strategy successful? Why or why not?
2. Every social media strategy costs money to implement, and we listed a few of those costs in this case study. Create a more comprehensive list of social media strategy costs. Briefly describe each cost and identify it as either a fixed cost or a variable cost.
3. Suppose you have a successful business with a well-liked product. One day something goes wrong and you ship 100,000 defective products. Almost the entirety of your customer base is disgruntled. What social media strategy would you employ to help? Why? Would you be better off just "waiting for it to blow over" or even "sticking your head in the sand"?
4. In the case study, we listed five steps to success. Identify two others and briefly describe them.

■ KEY TERMS AND CONCEPTS

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 Distribution chain, 36
 Enterprise resource planning (ERP) system, 45
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 Information partnership, 39
 Inter-modal transportation, 37
 Just-in-time, 37
 Legacy information system (LIS), 48
 Massively multiplayer online role-playing game (MMORPG), 54

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■ SHORT-ANSWER QUESTIONS

1. What is business intelligence? Why is it more than just information?
2. What is online transaction processing (OLTP)?
3. What is online analytical processing (OLAP)?
4. What is the most popular database model?
5. How are primary and foreign keys different?
6. What are the five important software components of a database management system?
7. How are QBE tools and SQL similar? How are they different?
8. What is a data warehouse? How does it differ from a database?
9. What are the five major types of data-mining tools?
10. What is a data mart? How is it similar to a data warehouse?

■ ASSIGNMENTS AND EXERCISES

1. **FINDING "HACKED" DATABASES** *The Happy Hacker* (www.happyhacker.org) is a Web site devoted to "hacking"—breaking into computer systems. When people hack into a system, they often go after information in databases. There, they can find credit card information and other private and sensitive information. Sometimes, they can even find designs of yet-to-be-released products and other strategic information about a company. Connect to *The Happy Hacker* Web site and find an article that discusses a database that was hacked. Prepare a short report for your class detailing the incident.
2. **DEFINING QUERIES FOR A VIDEO RENTAL STORE** Consider your local video rental store. It certainly has an operational database to support its online transaction processing (OLTP). The operational database supports such things as adding new customers, renting videos (obviously), ordering videos, and a host of other activities. Now, assume that the video rental store also uses that same database for online analytical processing (OLAP) in the form of creating queries to extract meaningful information. If you were the manager of the video rental store, what kinds of queries would you build? What answers are you hoping to find?
3. **CREATING A QUERY** On the Web site that supports this text (www.it-ebooks.com), choose Chapter 3 and then Solomon Enterprises), we've provided the database (in Microsoft Access) we illustrated in this chapter. Connect to the text's Web site and download that database. Now, create three queries using

think your school gathers and uses this kind of business intelligence? Why or why not?

3. Consider your school's registration database that enforces the following integrity constraint: to enroll in a given class, the student must have completed or currently be enrolled in the listed prerequisite (if any). Your school, in fact, probably does have that integrity constraint in place. How can you get around that integrity constraint and enroll in a class for which you are not taking nor have completed the prerequisite? Is this an instance of when you should be able to override an integrity constraint? What are the downsides to being able to do so?
4. In this chapter, we listed the five important software components of a DBMS: the DBMS engine, the data definition, data manipulation, application generation, and data administration subsystems. Which of those are most and least important to users of a database? Which of those are most and least important to technology specialists who develop data applications? Which of those are most and least important to the chief information officer (CIO)? For each of your responses, provide justification.
5. Some people used to believe that data warehouses would quickly replace databases for both online transaction processing (OLTP) and online analytical processing (OLAP). Of course, they were wrong. Why can data warehouses not replace databases and become

"operational data warehouses"? How radically would data warehouses (and their data-mining tools) have to change to become a viable replacement for databases? Would they then essentially become databases that simply supported OLAP? Why or why not?

6. Consider that you work in the human resources management department of a local business and that many of your friends work there. Although you don't personally generate payroll checks, you still have the ability to look up anyone's pay. Would you check on your friends to see if they're earning more money than you? For that matter, would you look up their pay just out of simple curiosity, knowing that you would never do anything with the information or share it with anyone else? Why or why not? People working at the Internal Revenue Service (IRS) were caught just curiously looking up the reported incomes of movie stars and other high-profile public figures. Is this acceptable? Why or why not?
7. In spite of the need for "clean" information, many organizations have databases with duplicate records for you. You've probably experienced the consequences of this by receiving two identical pieces of junk mail from the same company. One record in the database may have your middle initial while the other doesn't, or there is some other type of minor discrepancy. Why would some organizations intentionally *not* go through a process of cleaning their database information?

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