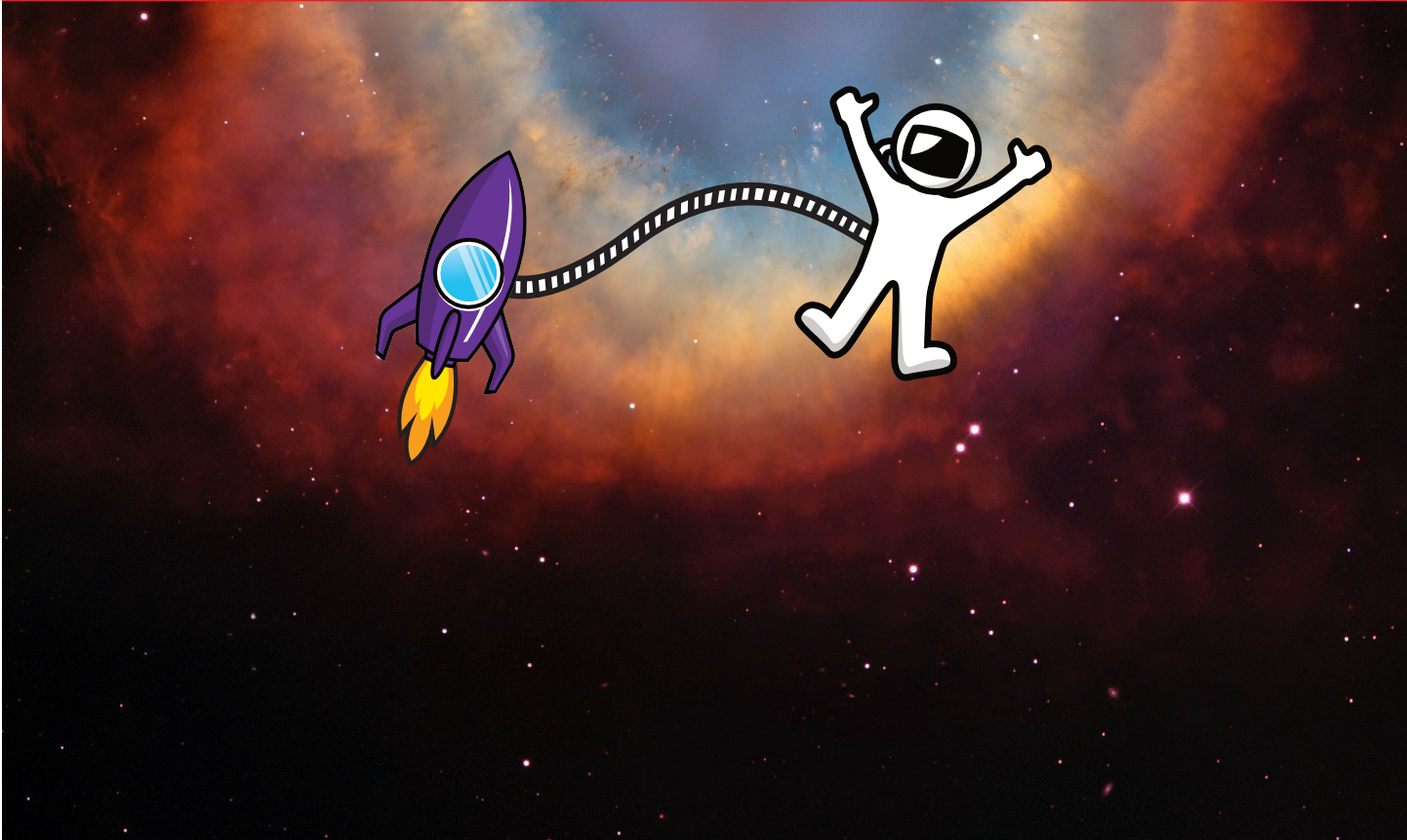




DRIVING REVENUE AND PROFIT WITH TECHNOLOGY



Many organizations view information technology (IT) as a painful but necessary overhead expense, an unfortunate cost of business that should be managed and kept as small as possible. In reality, IT can be a powerful engine for revenue growth and increased profitability. We examine several different ways that IT can generate revenue or reduce costs, and we provide a real-world example of each approach based on our own work.

INFORMATION TECHNOLOGY IS NOT A UTILITY

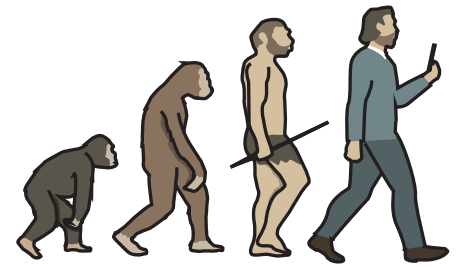
It's hard to believe that just thirty years ago desktop computers were a rarity in business, and that twenty years ago Internet connectivity was just becoming common in organizations. Ten years ago we hadn't even seen the first iPhone or Android phone. Now everyone has some combination of a desktop, a laptop, a tablet, and a phone; even the most junior employee has more computing power readily available than an entire company had in the 80s. Computers are all around us, and it's easy to get used to them as just another tool of business.

Now we treat IT as a utility, like the lights and the plumbing. In fact, many organizations view IT as a large and unfortunately necessary overhead expense. What was once new and exciting has become familiar and boring, and we no longer envision the amazing things we might do with all of this power at our fingertips. That's a mistake.

A POWERFUL ENGINE

Information technology is a powerful engine for growth. The data from several studies, along with our own observations over 16 years of development projects, supports our assertion. In fact, IT investment often pays off better than investment in advertising or R&D.

Here we look at four specific ways that information technology can increase revenue and/or profitability: increased operational efficiency, increased scalability, increased revenue, and improved customer experience. We also present a real-world example based on our own work with our clients.



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INCREASED OPERATIONAL EFFICIENCY

One area in which information technology excels is by increasing operational efficiency. We built a system for a large pharmaceutical company that was enormously successful at improving both efficiency and customer outcomes.

Each pharmaceutical company in the United States is required by the Food and Drug Administration (FDA) to answer questions about its products. When those questions come in from doctors, nurses, anesthesiologists, and other health care professionals, they're called professional information requests (PIRs).

PIRs are generally questions about off-label uses of approved drugs, but they may also be questions about product ingredients, use in atypical patients (e.g., pets), or use of the product in combination with other therapies. Answering PIRs requires a full-time team of skilled employees; the company uses a team of scientists with Doctor of Pharmacy degrees (PharmDs) supported by administrative staff.

When we started, the company had roughly 60 employees handling a volume of 35,000 PIRs a year. Average turnaround time was approaching 90 days, and the backlog continuously grew. The estimated cost per year per employee was close to \$150,000, or roughly \$9 million per year. Worst yet, new product launches suggested that PIR volume was about to grow dramatically. Based on employee costs and PIR volume, the cost per PIR was \$257 and the customers had to wait for months! With PIRs possibly tripling over the next two years, the company foresaw an enormous expense coming its way.

Using a methodology that emphasized the importance of the right process, we helped the company implement a new system to handle a larger volume of PIRs with a smaller staff and very rapid turnaround time. We streamlined the process, used automation to perform several steps and eliminate the need for administrative staff, and used rudimentary artificial intelligence to enable the system to suggest correct responses to the PharmDs.

While we deployed the new system in six months, it took another eighteen months for the department to scale to an appropriately sized workforce. Two years after deployment, the department was down to 15 employees, the volume of PIRs was 85,000 per year, and the response time was less than 3 hours even including nights and weekends, with no backlog. The 15 employees who remained were the PharmDs, so their average cost was \$200,000, but the cost for the entire department was only \$3 million. At the same time, they were answering nearly three times as many PIRs per year. The cost per PIR had dropped from \$257 to \$35 with almost no wait and no backlog.

Technology Improving Profitability	BEFORE	AFTER
Number of PIR's a year:	35,000	85,000
Cost per PIR:	\$257	\$35
Number of employees to operate:	60	15
Cost per year:	\$9m	\$3m
Turnaround time:	90 Days per PIR	3 Hours

\$167m in savings over ten years

The cost of the system was \$2 million, but in the first full year of use alone it saved \$6 million while resulting in a much faster response time to the company's customers. The system remained in use for ten full years with minimal maintenance. During those ten years, the company processed nearly 750,000 PIRs.

At the original rate of \$257 per PIR, those 750,000 would have cost the company nearly \$193 million dollars, a staggering figure. That assumes scaling the old model to handle the volume; the response time still would have been measured in months rather than hours. At the improved rate of \$35 per PIR, the company actually spent just over \$26 million over those ten years. The savings? Nearly \$167 million dollars over ten years. That's a pretty nice return for a \$2 million investment.

INCREASED SCALABILITY

Many businesses encounter increased demand for their products or services but find that their IT systems can't keep up. When the systems can't keep up the business is missing out on opportunity. We helped a Real Estate Owned (REO) business build a system that scaled with their astonishing growth.

Keystone Asset Management manages the foreclosure, maintenance, and subsequent sale of homes. During the Great Recession they were overwhelmed with the sheer number of foreclosed properties they were being asked to manage, so they moved rapidly to improve their systems and gracefully handle the traffic. From 2000 to late 2006 the total amount of past due, delinquent, and defaulted mortgage loans in the United States hovered below \$20 billion. Within three years that number skyrocketed to \$150 billion, a more than seven-fold increase. Keystone's business went with it, but their existing systems couldn't keep up.

We developed a collection of solutions that simplified and automated much of the work that their associates performed, enabling the company to grow from 30 to 200 people at the peak of the REO market. Their total investment in IT during those peak years was less than \$1 million, but the company realized millions of dollars in additional revenue.

INCREASED REVENUE AND NEW REVENUE SOURCES

Some companies have room to grow within their market but are unable to do so because the systems they need to produce new



products or services don't exist. Developing those systems enables organic growth within the existing market.

The Institutes is a not-for-profit educator to the insurance industry, and for decades, they produced textbooks one at a time. While their process was effective at producing completed textbooks, it was slow. Each textbook stood alone as a product; applying changes across all products was so time-consuming that it was impractical, and reusing textbook content in other formats such as web-based training or student flashcards was a tedious, manual process. The process of producing a new textbook was so onerous that for ten years leading up to 2006 the organization had not produced a single new product. In 2006 The Institutes had a change in leadership, and the new CEO described a new vision for how the organization would produce content, creating a whole new realm of opportunities to create products and services that had been impractical before. The Institutes engaged Jacquette Consulting to help make this new vision a reality, and over the course of three years we did just that and built the Content Management System (CMS.) The results completely changed the way The Institutes created products and launched them into a new cycle of growth.

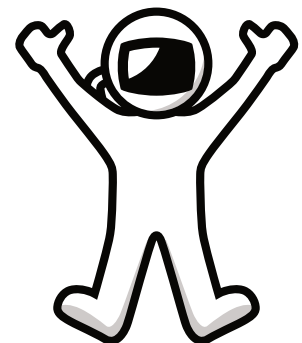
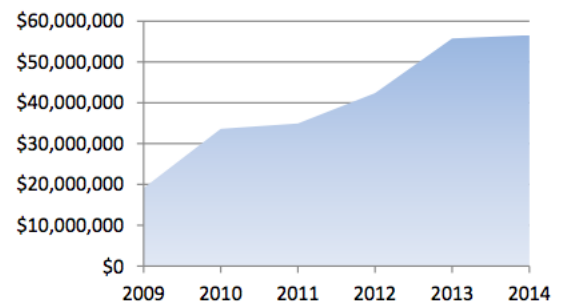
Between 1996 and 2008 The Institutes produced no new products, but in 2009 the CMS system went on-line. The company introduced ten new products that year, each with an associated revenue stream. Each year the company was able to create more new products and drive new revenue; in 2015 alone the company produced nearly 140 new products. Revenue grew from \$19 million in 2009 to more than \$56 million in 2014. The company took in more than \$127 million in additional revenue during those six years than it would have if revenue had remained at the 2009 level. The development cost for CMS? \$2.1 million over three years.

While CMS alone wasn't responsible for all of The Institutes revenue growth, it certainly enabled the organization to create and market new products more quickly than ever before.

IMPROVED CUSTOMER EXPERIENCE

Improving an organization's customer experience increases customer retention and spending, encourages acceptance of new products and services, and brings in new customers through organic, word-of-mouth marketing. We helped a medical laundry company improve their customer experience using precisely targeted technology.

Revenue following CMS deployment



ImageFIRST is the largest and fastest growing provider of healthcare laundry services to medical practices throughout the continental United States and Puerto Rico; a key component of their growth strategy is an enormous focus on customer experience. ImageFIRST delivers clean, sanitized, and individually packaged sheets, robes, lab coats, gowns, and other textiles to their customers; the customers then return the soiled linens for cleaning. Items like sheets and robes are general-purpose and may rotate through multiple customers, but items like lab coats and medical scrubs are specific to an individual professional and must be returned to that individual.

The “user facing” part of ImageFIRST’s business is their drivers; the drivers deliver the clean linens, collect the soiled linens, and interact with the customers. The drivers are remarkably successful at delivering great service and building customer loyalty, but when an issue happens, the company wants to know about it and address it as quickly as possible.

To better enable customers to escalate issues as quickly as possible, we worked with ImageFIRST to create the Instant Service app, a mobile application that provides one-button communication with the driver, the customer’s assigned service manager, and ImageFIRST’s head of service. The app is simple and straightforward; based on the user’s contact information, it automatically provides the correct contacts for the driver and assigned service manager; pressing a button dials the appropriate contact’s phone number.

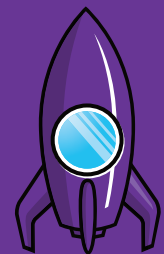
When we built the app, we expected it to get minimal use; the drivers do their jobs well and there are few issues that require escalation. However, the app’s availability sends a strong message to both the customers and the ImageFIRST team: if there’s an issue, we want to know about it right away and we want to make it as simple as possible for the customer to bring it to our attention. ImageFIRST’s sales team regularly highlight the app to prospective customers in their sales conversations, and the Instant Service app is one of ImageFIRST’s six “Remarkable Services.” The app itself is less important than the message that it embodies: “we want to make you happy, so call us immediately if we need to address something.”

THE BROKEN PROMISES OF IT (AND HOW TO AVOID THEM)

Some executives are hesitant because IT is littered with failed projects and broken promises. Vendors constantly assure CIOs, CEOs, and COOs that the Latest, Greatest, Whiz-Bangest Software will instantly solve all of their problems and put them on the road to riches. So how is an executive supposed to know whether yet another investment in information technology will pay off?

Here’s why information technology projects fail:

- Poorly understood business needs
- Poorly understood business benefits
- Attempts to force-fit the wrong, usually prepackaged solution
- Silver bullet syndrome, in which the purchasing company believes that technology will fix organizational issues
- Vendors who focus on the technology, not the business



Relatively few IT projects fail because the technology doesn't work right; most of them fail because it wasn't the right technology in the first place. A vendor who is trying to sell you XYZ solution is rarely going to stop, look around, and say, "Oh, we're definitely not the right fit for you. You need ABC solution from our competitor." Every business has unique needs and circumstances. The more a product vendor swears that his or her product can do everything you want, the faster you should run away.

HOW TO ENSURE IT PROJECTS SUCCEED



1. Plan to invest much of your effort in truly understanding what the business and its people need and want. If you hire a vendor to build custom software or integrate existing software, ensure that's how the vendor works. Interrogate them ruthlessly about their approach. Ask specific, pointed questions about how they will ensure that the people who will actually have to use the system will be heard and their knowledge incorporated into the design. Be wary of claims that the system can be configured to meet all needs.



2. Understand the benefits of your proposed system. You and your users should be able to answer this question clearly: "What financial and business benefits will we get if this system works perfectly?" Obviously the value of the benefits should far outweigh the cost of the system. If you can't even approximate the value, you probably need to gain a better understanding of what the system is supposed to do.



3. Don't force-fit the wrong off-the-shelf technology. Build the technology around the opportunity or the solution; don't choose the wrong technology in an effort to save money. It never works out that way.

4. Recognize that automating a bad process just results in a faster, more reliable bad process. IT projects are not silver bullets, and technology doesn't magically solve people or process challenges.

Technology is simple. People and organizations are complex. Focusing on the technology instead of the people and the organization is a guaranteed recipe for failure.

MEASURE THE OUTCOMES

Return on Investment (ROI) is an overused term, but it's also a concept that we should apply to IT projects more rigorously. Understanding the financial benefits (or drawbacks) of your technology enables you to more easily identify great opportunities for growth. Project your ROI before you begin your next IT project, and then design a way to measure that ROI once the project is finished. See how well your projections measure up to the reality, and then apply that knowledge to the next project.

START YOUR ENGINE!

Ask your leadership team, “If we could have any software in the world we needed, where could we significantly boost revenue?” Start brainstorming possibilities where technology can increase efficiency, where it can increase capacity, where it can generate new revenue, or where it can dramatically improve the customer experience. Don’t worry about how or how much, just explore the possibilities. Systems that cost \$2 million or less have generated hundreds of millions of dollars of savings or revenue, but only when a company’s leadership team has identified the right opportunity. Where are your opportunities?

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