

## The Missing Customer

We can no longer afford to treat our customers as abstract entities. They are real people with real concerns seeking our professional assistance.

**W**e can't generate value because our customers are missing? What kind of claim is this? Every day we complete transactions, manage businesses, and carry out professional projects. We are interacting constantly with customers. It is absurd to claim that our customers are missing! So say surprised skeptics seeing our claim of missing customers. What if our problem with value is rooted in a misconception of our customers, the people we are creating value *for*?

Many professions hide customers behind structures of practices and procedures completely unrelated to their customers' judgments of value and satisfaction. In medicine, for example, many physicians see their patients only as "cases," with sets of symptoms to diagnose and treat. Sherry Rogers, MD, criticizes how rigidly many fellow physicians follow standardized "medical practices," to insulate themselves from lawsuits and ensure that the insurance company will pay the bills [4]. Such practices can distance physicians and patients, hurting more than

they heal. Rogers says most medical practices lead to some drug or surgery and that prescription drugs are the fourth leading cause of death. Is this a model for customer value and satisfaction?

We Information Technologists are in a similar boat. We call our customers "users" and sell them



software without a warranty. Even when customers complain bitterly, we defend automated customer-interaction systems for businesses and on grounds of efficiency and technical elegance. We rigorously follow engineering development processes for systems, blaming the customer for bad specifications—which often we wrote. We are deadlocked on the value of voluntary certification for those software

engineers who want to assure their clients that they are qualified and committed to high standards of conduct and responsibility. The price for our lack of sensitivity to our customers is their lack of trust in our judgments about the safety and reliability of critical systems and their calls on the political system to regulate and license us.

When Jan Carlzon became the president of SAS Airlines in 1981, SAS was in deep financial trouble, with declining punctuality, service, and morale. Carlzon fostered a paradigm change he called "moments of truth," defining a moment of truth as any event that brought SAS to the mind of a customer. He included indirect interactions with customers—for example, a stain on an airliner's seat was not just a blotch on fabric, it was a moment when a customer formed an impression about the company. Within one year, a large influx of business travellers swung SAS into the black and within 18 months SAS was Airline of the Year. In his book, Carlzon says of this:

*At SAS, we used to think of ourselves as the sum total of our aircraft, our maintenance bases, our*

# The Profession of IT

offices, and our administrative procedures. But if you ask our customers about SAS, they won't tell you about our planes or our offices or the way we finance our capital investments. Instead, they'll talk about their experiences with the people at SAS. SAS is not a collection of material assets but the quality of the contact between an individual customer and the SAS employees who serve the customer directly. ... [In 1986] each of our 10 million customers came in contact with approximately five SAS employees, and this contact lasted an average of 15 seconds each time. Thus, SAS "created" 50 million moments a year, 15 seconds at a time. These 50 million "moments of truth" are the moments that ultimately determine whether SAS will succeed or fail as a company. ... We have to place responsibility for ideas, decisions, and actions with the people who **are** SAS during those 15 seconds: ticket agents, flight attendants, baggage handlers, and all the other frontline employees. [2]

With this new attitude, SAS employees came to see that *all* their actions leave a trace that affects customer satisfaction. The essence of the change was that the customer was no longer missing from their awareness.

## Customers in Action

Unfortunately, many of us have a much narrower view of customers. It is our "common sense" that a customer is someone drawn to a product or service and that the business objective is to make a profit by capturing enough cus-

tomers. Customer satisfaction is mostly a psychological assessment: Is the customer happy while buying? This limited interpretation is the one held within SAS before its moments of truth.

This common interpretation obscures the prime motivators of customers: value and satisfaction. If customers see little value in a product, they will not buy. If they see value but are dissatisfied with their interactions with the company for sales, warranty service, or technical support, they will not return. Only if they perceive both value and satisfaction will customers become loyal customers and promote the company.

Companies (and professionals) focusing on technical excellence as an overriding concern in their products or services tend toward "featuritis" and to neglect non-technical ways to increase value and satisfaction for their customers. Famous examples, say manufacturing experts James Womack and Daniel Jones, are the many German companies that suffer from overreliance on engineers to specify product value [5]. Their designs tend to ignore customer perspectives such as simplicity and user-friendliness. They tend to react to complaints by adding more technology to the product.

Our customers are not present in the most crucial place they must be for us as professionals: in our awareness of the impression, the value, and the satisfaction that our work and actions will produce for them. It matters when our cus-

tomers satisfied, and it matters when they are not. Their satisfaction is the single most important element of business and professional success.

A closer look at the practices we engage in every time we are customers reveals four basic truths about value and satisfaction.

(1) *The customer is one of two roles in a transaction.* The other party to the transaction, the *performer*, provides something that the customer wants. The customer initiates the transaction either by making a request or by accepting an offer from the performer.

(2) Acting from expertise, the performer provides something missing in the customer's world. What is missing can be expressed as the *conditions of satisfaction* (CoS). The customer and performer must agree on the CoS, which may require a negotiation. The agreement always implies a commitment to satisfy the customer—because no customer will voluntarily agree to be dissatisfied. Despite their best efforts at clarity, the two parties may yet have different interpretations of the CoS; therefore, the transaction ends only when the customer declares satisfaction with the result.

(3) The two parties *trust* their mutual commitments. The customer trusts the performer has the capability to deliver and intends to do it on time. The performer trusts the customer will accept the results if they meet the CoS, and will pay if that is part of the deal. In most cases, trust will be based

on past reputation: the performer's record at delivery and the customer's history of acceptance of results and payment.

(4) The customer acts from two assessments, perceived value on entering the transaction and satisfaction at the end. Customers will not enter transactions without expecting worthwhile benefits; fulfilling the CoS is how a performer produces value for customers. The transaction ends when the customer declares the CoS have been

buyers, clients, consumers, patients, patrons, purchasers, internal customers, external customers, and users. It also encompasses a variety of words for performer: promisor, provider, professional, service provider, manufacturer, and producer.

This interpretation is much broader than a business transaction. You are a customer for a company that accepts your order, for a doctor who agrees to examine and treat you, for a professor who promises

ples will illustrate. When you make a request, or submit an order following an established order procedure, but get no response, you have encountered a "missing performer." This can be profoundly dissatisfying and frustrating. Bureaucratic organizations are famous for this approach. When you try to provide services that do not meet anyone's conditions of satisfaction, or for which no one has asked, you act for a "missing customer." This inspires a sense of dis-

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met and that the transaction is complete. Customer satisfaction is not psychological—it simply means the CoS are fulfilled. Note that value is an assessment about the future, while satisfaction concerns the past.

We can summarize these four truths so:

A *customer* is anyone to whom a promise (or commitment, or agreement) is made. The *performer* of the promise commits to take action to fulfill a condition of satisfaction for the customer by a certain time. The customer makes assessments of value of the transaction, trust of the performer, and satisfaction with the outcome.

This interpretation encompasses all the words that have been used for various senses of customers:

you a certain outcome from taking his course, for a lawyer who agrees to represent you in court, and even for your spouse who says, "Please pass the salt." You do not have to engage in a business transaction to be a customer.

This interpretation includes transactions that do not involve a payment. The promise of payment creates a reverse relationship, with the performer of the CoS being the customer of the payment, an arrangement called an exchange transaction.

This interpretation is not a list of "good ideas" or "useful techniques." Every professional must practice all four elements to produce value and satisfaction. If any element is missing, a transaction will almost certainly end with a dissatisfied customer. Some exam-

connection, intrusion, and distrust that will drive future customers away. Many software and technology companies are famous for this approach. If you and a performer have not taken care to agree on the conditions of satisfaction, you will almost surely end up dissatisfied and your trust in the performer diminished. If either you or your performer do not trust each other, you are unlikely to complete a successful transaction. If you see no value in a performer's offer, or you have bad past experiences with that performer, you are unlikely to enter into future transactions with that performer.

This interpretation of customer differs markedly from the one-dimensional notion of customer as purchaser. It accords with SAS's viewpoint after Carlzon intro-

# The Profession of IT

duced moments of truth. Seeing that customers arise out of agreements that shape their futures has a profound impact on the practices of professionals. Because professionals need customers who value their expertise, having the ability to produce value and satisfaction is essential for an effective professional. We call these skills “value skills.”

Why is this interpretation important to IT people? It shows that technical creativity that is not linked to a promise to a customer or to the concerns of a community of potential customers (a market) is not likely to satisfy customers. It shows that, in their roles as designers, professionals need to pay attention to the concerns of their customers. For software developers, this will eliminate the bugaboo of most software projects—effort wasted trying to fulfill conditions that will not satisfy a customer. Finally, it shows that the assessments of customers are crucial to the success of a professional.

## Why is the Customer Missing?

Customer assessments are a messy distraction in the elegant world of IT, where abstraction reigns in the form of data, information, algorithms, programs, email, files, instruction sets, directories, network communication channels, graphics, and user interfaces. Unlike abstractions in other fields, which only guide practitioners, IT abstractions can themselves produce action. For example, the abstract checkbook

in your computer is a ledger, a database that produces tax records, and a bill-paying service. Information technologists are trained to view worldly objects as potential abstractions to represent inside a computation. Customers collapse into abstractions in this world. Abstractions do not have concerns or make assessments.

A second reason is that a value dimension is missing in the education, training, and practice of many knowledge professionals [3]. Viewing technology development as a more or less mechanical process of transforming specifications into products or services is not going to solve the problem, no matter how much more we learn about methods and tools. Nearly two decades ago, software engineer and pioneer Fred Brooks said that development of software methods and tools is on a path of diminishing returns and that the real place to look for significant improvements in software quality is in cultivating great designers. In his famous 1986 essay, “No Silver Bullet,” he wrote,

*Whereas the difference between poor conceptual designs and good ones may lie in the soundness of design method, the difference between good designs and great ones surely does not. ... Sound methodology can empower and liberate the creative mind; it cannot enflame or inspire the drudge. The differences are not minor—it is rather like Salieri and Mozart. ... Although I strongly support the technology transfer and curriculum develop-*

*ment efforts now under way, I think the most important single effort we can mount is to develop ways to grow great designers. [1]*

Brooks said that software organizations need systems of recognition, reward, and mentorship for designers, and that universities need curricula to teach budding designers the basic practices for success. In our view, value skills are the foundation of design practice. We cannot “grow great designers” until we instill ways of thinking and practice that include a clear notion of, concern for, and skills with customers. Software developers who do not satisfy customers cannot be great designers.

A third reason for the missing customer is outright hostility toward the concept of customer in the universities. Customers are associated with corporations and most academics are loath to imitate corporations. Consider the following resolution adopted recently by the faculty senate at George Mason University:

*“Corporate models” of education in which students are viewed as “customers” are not appropriate. Education is a unique activity in a democratic society that differs markedly from both business and government. Universities are absolutely essential in contemporary society as centers of free inquiry, free expression, open discovery, and dissent. Any attempt to force education into a corporatist mold devalues faculty, lowers academic standards, and harms both students and the*

*institution itself.* (Faculty Senate, George Mason University, Sept. 2002)

They are right, of course: the university cannot operate like a corporation. Most universities receive the bulk of their funds from state legislatures, based on enrollment head-counts. If the university provided what the students value most—smaller classes, more attention from professors,

### Professionals or Technicians

We are familiar with the common sense that professionals deliver specialized technical knowledge services to paying customers. What is missing from this common sense is that we also have to satisfy customers and we do so by creating value for them.

The new interpretation of customer calls for a reinterpretation of what we mean by a professional. A

department for professionals is not just a problem of the individual practitioner. It is a problem of the self-conception of professions themselves. Many a profession draws the boundary of the skills they require and teach at the technical perimeter of their field, considering customer relations to be the responsibility of the individual professional, or perhaps employers, or perhaps the sales or marketing

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more challenging assignments, more individual coaching and guidance, more training in workplace effectiveness—they would be unable to keep enrollments up. One of us (Denning) asked his students for their reactions to this resolution. Several granted that faculty have many customers including research sponsors, industry groups, parents, and state officials—but they did not take kindly to the lack of acknowledgment of students' concerns for a good education. Fortunately, most faculty take their responsibilities as teachers very seriously and do their best to respond to their students within the constraints imposed by crowded classes and faculty senates. But how can students learn to listen for the moments of truth in their work in an atmosphere that officially despises the very notion of the customer?

professional's primary responsibility is to satisfy customers in their concerns to obtain value from a knowledge area in which they are not experts and who cannot themselves cope with the risks and breakdowns they encounter. Advancing the technology is important only to the extent that it anticipates future breakdowns and concerns of customers and enables professionals to make and fulfill more valuable promises. Moreover, to be successful, professionals need to meet standards of competent and ethical performance evolved in response to long-term customer concerns.

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The challenge of customer satis-

departments. This is no longer a workable arrangement. Value skills are fundamental to the careers of professionals, and central to the value that a profession provides. ■

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