

IoT creates individualized relationships with customers

Technology has permanently changed the way businesses communicate internally, with customers and other businesses.



Loren Robinson

The earliest forms – telephone, telegraph and fax machine – all were better than snail mail but were costly when compared to their successor, email.

Electronic mail introduced businesses to instant communication, conveying information to co-workers in satellite offices, business partners in other states and suppliers in other nations. It was, and remains, one of the most widely used forms of business communication.

Then came the Internet and its wildly popular progeny, social media.

The Internet opened vistas that were unexpected and allowed the free and, almost limitless, communication across companies, the nation and the globe. Its offshoot, social media, allows businesses to market to consumers worldwide.

So what's the next innovation? Where do we go next?

The likely answer ... the Internet of Things.

The Internet of Things, or IoT, also is called the Internet of Everything and Network of Everything. It is the connection of "physical objects embedded with electronics, sensors, software and Internet connectivity."

IoT, like social media, developed through a convergence of several technologies. The technologies – wireless networks, Internet, sensors and microelectronics – enable the creation of smart devices that allow communication with



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the manufacturer and other networked devices.

One other benefit: IoT devices collect copious amount of data. IoT supporters and investors, such as IBM, Nest and Apple, believe IoT has the potential to generate \$7 trillion in gross revenue (it already generated \$655.8 billion in 2014) worldwide, and that it will create the next evolution in marketing.

If IoT performs as anticipated, it will be the next technological leap for big data collection and marketing.

It will definitely alter the way marketers speak to target markets. It will help marketers anticipate customer needs and provide efficient, almost individualized solutions to customer problems.

IDENTIFYING EACH PERSON'S HABITS

IoT also will radically change the role marketers will play in the process. One way is through the use of individual identifiers.

Individual identifiers do just what the name implies, provide a specific identifier for each object or person. It is estimated there will be more than 26 billion IoT devices on the IoT grid by 2020. The connections will send data; copious amounts of data.

One of the best types of data IoT will help businesses collect is that of sales data. It will provide even more insight than Facebook, Instagram, Twitter and all other social media platforms combined.

The data IoT collects will provide how, when,

where and why consumers use products. Per Salesforce, IoT will "gather ... data and supply it back ... in real time, without the need for IT professionals to direct or monitor the interaction."

INFORMED MARKETING STRATEGIES

Why will this information be useful to the business person?

It will help him or her create and implement "informed marketing strategies" and dramatically improve sales return on investment.

IoT also will change the way marketers send messages via social media. Social media, as a marketing tool, already have changed the way businesses "talk" to their target market.

The primary benefit of social media marketing is its ability to share a message with an exponential reach. Messages that would have been seen by just a few now have the ability to reach millions.

One drawback, the message may have no significance for most of the recipients.

TWO-WAY FLOW OF INFORMATION

Let's add IoT to the equation. The message's reach becomes less important, as connected devices send messages to consumers who already use a product or service.

Instead of facing an uphill educational battle, businesses will be preaching to the converted. In a language they understand and about things that they want to hear.

Another benefit: the flow of information will go both ways. Consumers will be able to let businesses know what works and what does not, in real time.

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529 plans pay for college and have big tax-advantages

One of the most important financial commitments parents, family or friends can make on behalf of a child is to help fund his or her college education.



Michael Joyce

College savings accounts can be opened as soon as a child has a Social Security number and can be funded with contributions as low as \$25 per month.

Designed to help parents set aside money for college, 529 plans are now the most common savings tools for college expenses.

These plans have significant tax advantages. According to the Internal Revenue Service, while contributions to a 529 plan are not federally deductible, "[e]arnings are not subject to federal tax and [are] generally not subject to state tax when used for the qualified education expenses of the designated beneficiary."

And many states allow for deductions of at least a portion of a 529 contribution.

Pennsylvania taxpayers, for example, can deduct up to \$14,000 in contributions per beneficiary per year from their Pennsylvania taxable income and up to \$28,000 if married and filing jointly (assuming each spouse had income of at least \$14,000).

COLLEGE SAVINGS PLAN

College savers can choose from three types of 529 plans: a college savings plan, a prepaid tuition plan and the private college 529 plan.

With a college savings plan, contributors are offered a list of plan options managed by the state or individual mutual funds. These investments are market sensitive and go up and down based on the performance of an investment choice.

The investments grow tax-free, and any distribution taken for qualified higher education expenses is tax-free. This type of 529 covers all qualified higher education expenses such as tuition, room and board, mandatory fees, books and computers.

College savings plans do not have residency requirements. Funds from this type of plan can be used at any institution that is eligible for federal student financial aid.

PREPAID PLAN

A 529 prepaid tuition plan allows benefactors to prepay all or part of future in-state college tuition and fees. Expenses paid by prepaid plans differ by state.

While room and board, books and computers are typically not covered in this type of plan, the prepaid plan allows the account holder to "lock in" tuition prices.

If the beneficiary opts for an out-of-state



college or university, their prepaid plan will cover the lesser of:

- Payments plus a reasonable rate of return on payments, or
- Average state public institution tuition.

PRIVATE COLLEGE PLAN

The private college 529 plan (administered by a subsidiary of OppenheimerFunds Inc.) covers expenses at a consortium of hundreds of private colleges.

With this type of plan, certificates may be purchased for future tuition redemption.

Tuition rates are locked in at the year of purchase, but because of varying tuition rates, the percentage of tuition covered per certificate differs for each school.

OTHER OPTIONS FOR THE MONEY

If a beneficiary opts out of college, decides

to attend college out of state or receives a scholarship, family and friends have other options for their 529 plan.

Keep in mind that for most plans, the child has up to 10 years from the expected date of high school graduation to use the funds with the ability to extend for up to 30 years.

Options for those who decide not to attend college include transferring the plan to a relative of the beneficiary, using the money for skills-training programs or overseas education programs that are eligible for federal student financial aid, or withdrawing altogether from the plan.

Parents of scholarship recipients may withdraw an amount equal to the amount of the scholarship from a college savings plan without penalty. But remember, account owners opting to take a nonqualified distribution from a 529 will be charged a 10 percent penalty on gains.

By making the commitment to fund college studies, contributors help set the stage for a student's future career success and personal well-being. It's never too early to start saving.

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