Communications, Information, Technology, and Management (CiTM)

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THE EDITOR SPEAKS - Disruptive Opportunities

In 1872, Aaron Ward produced the first Montgomery Ward catalog. At that time, farmers and their suppliers made regular use of locally produced catalogs to sell products in rural America, but this sales and distribution system left much to be desired. Ward's catalog, was would eventually redefine the entire retail industry, were so disruptive because it changed the business model for distribution. The products were managed and shipped from a central location, with deliveries being mailed out with a money-back guarantee. This eliminated the middle-man distributors and allowed them to give customers better prices. In 1894, Richard Sears entered the mail order business when he restructured the way orders were processed to improve efficiencies allowing products to be quickly delivered to the customers. Referring to Sears' order processing system as fast may seem quaint in the age of Amazon, but the Sears' process was considered a major disruptor at the time. Another innovation came in 1905, when Joseph Spiegel began to allow for mail-order credit purchases complete with a mail based credit approval process.

In 1912 Congress authorized the postal service to deliver packages, reducing the industry's reliance on private delivery systems further changing the mail-order business. Then in 1934, the Communications Act of 1834 created the Federal Communications Commission (FCC) to provide universal telephone service, a service that made the ordering process much easier for the consumer and expanded service areas for the retail giants of the time.

Each of these disruptive catalysts served to redefine the retail industry and forced companies to adopt new processes focused on bettering the customer's experience. When the Great Depression began to take root, these companies saw the established catalog businesses soften as the depression drove a massive urbanization of America. The urban customers of the time had easy access to many downtown department stores, thus they were much less reliant on catalog purchases. The retail giants sensed that as the population moved to cities they tended to settle in the outskirts of a city while the established retail merchants were located in downtown shopping districts. Sensing the opportunity, the catalog companies begin building retail stores to capture sales from these growing suburban areas. Urban transportation made it easy for consumers to shop in these suburban retail spaces, which allowed these retail giants to prosper, despite shrinking rural populations.

This "thumbnail review" of mail order businesses demonstrates how businesses have always been adept at adapting to new challenges and opportunities. It also shows that disruption does not always come from new entrants - disruption can come from new or established companies and can even be driven by changes in government policies.

Charles Dickens began his book “The Tale of Two Cities” with the observation, “It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of light, it was the season of darkness, it was the spring of hope, it was the winter of despair.” When addressing the challenges faced in today's environment, it is worth taking such sentiments to heart. The possibilities that present themselves during these times may prove to be incredible opportunities and worthy of dogged pursuit. However, these are also times that heighten resistance to progress, making it especially difficult for those seeking to ensure the resulting changes create an even more positive outcome.

Today's internet with its giant merchandise companies are considered as wonders of innovation, despite the fact that they are carrying on a legacy of disruptive behavior that has always characterized the retail industry. History shows that the retail industry has been in a constant state of evolution. Each evolutionary step is driven by the industry to focus on improving the customer experience in an environment where the customer is constantly changing. In today’s current climate of economic disruption, entrepreneurs and investors alike will find the largest opportunity in the industries, like retail, which are being most impacted. Those that divine the proper path forward will be rewarded, and those that cling to the past will miss out.

UPCOMING VIRTUAL EVENTS

February 9-10, 2021. Fierce WiFi Summit. A virtual event focused on the evolution of Wi-Fi systems.
February 10, 2021. Digital Enterprise CIO and Data Transformation. A virtual think tank that focuses on sharing experiences associated with transformational projects.
March 18, 2021. Horasis Extraordinary Meeting on the U.S. A virtual meeting to discuss and shape the vision of the new U.S. administration.
March 23-26, 2021. Tech Leadership Series 2021. A conference that examines the impact technology is having on industry.
April 13-14, 2021. Smart Cities Connect. A smart cities conference associated with US Ignite,
April 20-21, 2021. Digital Transformation Week, A conference dedicated to the technologies and processes needed to complete a successful digital transformation.

If you have an event that you would like us to include in our newsletter, please send an email to manager@i3-iot.net

READER CONTRIBUTION: Who Can You Trust with Your IoT Data?

By Yoram Solomon, CEO, Innovation Culture Institute. Yoram is also the author of The Book of Trust, twelve other books, and 300 articles. He was named one of the top 20 thought leaders on organizational culture by Thinkers 360. You can find out more about Yoram at www.yoramsolomon.com

No single entity can install enough IoT devices, systems, and applications to cover everything needed. As a result, entities must collaborate in two areas. The first area is interoperability. You would have never been able to enjoy Wi-Fi, Ethernet, Bluetooth, and many other technologies if equipment, connectivity, and service providers would not have put the effort to establish interoperability among their products and communication protocols. But it is the second area that this article focuses on: TRUST.

Can one provider trust another provider with your data?

The consequences of your data falling to the wrong hands could be devastating, and in some cases, could even pose threat to life and business viability. The level of trust you must have in another entity correlates, and must compensate for your perception of the risk that you might incur if that entity mishandles your data.

My definition of trust helps here: trust is your willingness to accept the potential negative consequences of giving control over something you have to someone (or something) else.

So, how do you know if you can trust another entity with your data?

To answer this question, I would turn to my model of trustworthiness, and the 6 components of it.

First, is the other organization competent in handling your data? Have they shown the ability to maintain data security in the past? Do they have the capability and the skills to continue and do that? If applicable, are they, their products, or their services appropriated certified to maintain data security?

Second, does the other organization share your values? What is their motivation for collaborating and interoperating with you? Are they driven by the same values and motivations as your organization, or are they driven by values that oppose those of your organization? “Marriage of convenience” could blow up in your face, when conflicting motivations rise to the surface. You must assure that your values are aligned with those you wish to trust.

Third, is the relationship symmetrical? Data that flows only in one direction is asymmetrical and may lead to breaches in trust. On the other hand, if data flow between the two organizations is symmetrical, trust will be maintained at a higher level. Keep my information safe and I’ll keep your information safe. Symmetry is a powerful motivator for trustworthiness.

Once you analyzed the other organization through these first three components, you would be able to determine whether you can (or cannot) fundamentally trust them. Don’t share information if the other organization cannot be trusted through the analysis of those three components.

The next three components come to play through the ongoing relationship with the other organization, because trust is dynamic. It increases (or declines) with every interaction and, although not as fast, in between interactions. In fact, it will decline faster with negative interactions than it would increase with positive ones. Just like people are much more inclined to post negative reviews if they had negative experiences than they are to post positive reviews if they had positive experiences. Bad is much stronger than good.

The other organization is made of people, and people are (or are not) trustworthy, which would make their entire organization trustworthy (or not). How they interact with you would allow you to determine their trustworthiness. The three components of every interaction are the positivity of the interaction, the length and frequency of interactions, and the intimacy of those interactions. The more direct, transparent, no-BS your interaction counterpart is, the more you can trust them. The more frequently you meet with them, and the longer you meet with them, the more you can tell if you can trust them or not. In a similar way, the higher the intimacy of your interactions are (more face-to-face, less email), the more you can tell if you can trust them.

While there is almost nothing you can do beyond judging the competence or values of the other organization, or the symmetry of your relationship, there is a lot you can do to determine their trustworthiness and build trust between you and them through interacting with them more frequently, for longer time, and more intimately.

Finally, remember that as much as you may need to trust them with your data, they must trust you with theirs. Building trust does not happen when you demand another person (or organization) to behave in a way that will earn your trust. It happens when you behave in a way that will earn theirs.

THE I^3 CORNER

This January, the I3 Consortium kicked off its 2021 calendar with a redesigned program intended to facilitate increased collaboration while respecting efforts to maintain social distance. The January event was a virtual one hour program hosted by the City of Los Angeles At the event, the City described their desire to create a video infrastructure that provides near term operational benefits for the Department of Sanitation and long term benefits that can be accrued across all city organizations (and residents). The session outlined the immediately visible objectives and characterized the larger strategic issues which require additional consideration before the specific requirements can be defined. The Sanitation department outlined their immediate needs and reinforced their desire to create an infrastructure that is capable of satisfying the future needs of the city at large. The challeng of creating such an architecture was given to the I3 Consortium so that members interested in working collaboratively on the project can come together to solve this visionary need. The intent of the challenge is to first create a potential solution that allows the city to better leverage the capabilities of the infrastructure and then to create a proof of concept (POC) system that can demonstrate its ability to satisfy future needs.

Based on this challenge, the I3 Consortium is working to assemble a work group drawn from interested parties to explore possible solutions to the challenge. The expectation is that the working group will first create a modularized infrastructure architecture that is able to evolve to support the evolving needs of the City. A viable subset of the infrastructure will then be assembled and demonstrated in order to validate the architecture. Many details remain to be worked out as we are just beginning to assemble a team of interested collaborators. Participation is open to other City departments, other cities, technology suppliers, and academics interested in active participation in the program. If you are interested in participating in this work group, feel free to email me at jerry.power@i3-iot.net.

The Consortium is currently in the process of organizing a second such Consortium meeting which will be hosted by a different I3 Consortium participant in the March timeframe. At this upcoming meeting, other challenges may be put in front of the I3 Consortium membership. The intent is to create an environment where the community can work collaboratively to solve and demonstrate solutions to problems that are too amorphous to be solved by any single organization.

A Season for New CEOs
by Jerry Power

In the last month Jeff Bezos announced he will be retiring as CEO of Amazon, allowing Andy Jassy to take the reins. Also in January President Joe Bidden, the equivalent of a CEO for the United States, was sworn into office. Many other companies are seeing changes in the C-Suite as companies make adjustments to account for the changing business environment. Given such high profile changes of the guard, it seems appropriate to reflect on the nature of a CEO handover.

In 2004, Harvard Business Review wrote an article, “Seven Surprises for New CEOs,” which highlighted the fact that contrary to common belief, CEOs do not actually run the company. McKinsey furthered this discussion with their 2019 article “The Mindsets and Practices of Excellent CEOs.” When someone moves into the role CEO, they are effectively accepting responsibility for the entire organization. Prior to assuming that mantle of responsibility, typically their role was more focused and allowed them to play a support role, where their primary actions are aimed to support the CEO. The CEO helps hold their internal
supporters accountable for their duties, but to the outside world, the CEO is solely responsible for the actions of the company entirely.

The CEO has too many internal and external pressures to permit direct oversight of their direct reports, so they must rely on their subordinates to carry out policy decisions. The position of CEO is unique in that they cannot blame others for faults, but they completely rely on others for any success.

The primary role of the CEO is to act as the chief communicator that sets the tone and direction of the company. Such a role is often mistakenly understood to imply a visible dispenser of wisdom; but numerous studies highlight the importance of listening and empathy in such a position. A successful communicator speaks on occasion but is always in receive mode as they seek to gather new information without the taint of hubris. And while the CEO is responsible for the organization's results, others must bring that vision to life. In fact, if the CEO attempts to take a hands-on role, it often leads to disaster, as this type of behavior causes the organization to begin viewing the CEO as a lynchpin. Should this happen, the organization will inevitably fail as the company pushes more of the decision-making process to the CEO's desk.

Another point eloquently made in these articles is that satisfying shareholders and external critics is not the goal of a CEO. Shareholders, those that provide the capital needed to grow, ultimately want profits which are dependent upon customer (or voter) satisfaction. While shareholders have a disproportionate voice at the table, any efforts to directly appease these individuals, which might have a negative impact to the customers, serves to undermine the foundation of the enterprise. Shareholders, as long-term investors in the company, do not want to see the basis upon which the company's value is based eroded.

McKinsey's article encourages new CEOs to move boldly and quickly if the organization is in need of operations, policy, or strategic adjustments that improve the prospects of the organizations. Such moves might drive a reallocation of resources (capital or human resources), adoption of operational or productivity enhancing measures, establishment of new competitive or customer driven initiatives. The selection of a new CEO is typically associated with a desire to drive change in an existing organization in order to counter an external threat or to capitalize on new opportunities. If the new CEO has directional issues that need to be addressed, the CEO should resolve these issues as quickly as possible so customers and employees alike are aware of the desired strategic change that the new administration is working to implement.

Upon assuming the role of CEO, no matter how much the CEO might expect or demand it, the role does not directly confer upon the CEO the right to lead or provide any assurances of loyalty from internal or external resources. The right to lead and loyalty from others must be earned every day. Earning the right to lead is something the CEO has to focus on every day of their tenure. The CEO represents a vision for the company, an aspirational objective that the leader must nurture and encourage. The support of the individual organization's members is critical to allowing this to happen. Whenever a leader assumes the role of a CEO, they leave behind their efforts to serve as part of a successful management team to take on a critical and more difficult role.

READINGS FROM THE EDITOR'S DESK

Digital Pricing Transformations: The key to Better Margins. Transforming pricing to reflect the digital marketplace is tricky. McKinsey does a good job outlining the considerations. But, cash flow can be a big stumbling block. Digital pricings change cash flows and this shift can result in financial stress.
The Future of Healthcare: Value Creation Through Next-Generation Business Models. Under a new normal, customers will be supported with less direct interaction. Big changes are coming to industries based on personal interaction. Healthcare is an example. Changes will impact both business models and service structures.
De Risking Digital and Analytics Transformations. McKinsey says many agile efforts fail to consider security & privacy issues at the onset. These features can be added after the MVP has been deployed, but damage to the brand may have already occurred. The term 'minimal' has to be a sliding scale.
Hospitals Without Walls: The Future of Healthcare. The COVID-19 pandemic has many professionals thinking about the future of healthcare and how a system that is less focused on physical facilities might look like. Maybe it is time to think about healthcare as a collected and distributed ecosystem of providers.
Harnessing the Power of External Data. Data has value. The value of data can be increased by linking data sets together by making deeper/richer data driven insights possible. Care must be utilized to link and then use the data to maximize value and reduce risks.
Why is it so Hard to Become a Data-driven Company? Data-driven companies outperform their competitors. This is clear, but research continues to show that it is the company's culture, not technology, that is slowing efforts to become more data driven. Managing data flows requires behavioral nurturing.

LET's CONTINUE THE CONVERSATION

Please feel free to forward this email to your friends and colleagues who you believe would benefit from participation in our community. For those of you who wish to be included among those who believe that technology is a tool and that business success is achieved by skilled wielding of the tools available to us, feel free to reach out. If you have suggestions, topics you want to see included in future newsletter updates, or other general inquiries, feel free to email us at manager@i3-iot.net. The ideas expressed in this newsletter are intended to stimulate conversation and dialog that will lead to a better understanding of our collective future. The opinions may not necessarily reflect the opinions of any members of our community of interested people.

ABOUT I3/CiTM

Originally founded under the guidance of USC, the Institute for Communication Technology and Management (CTM) was formed to support a deregulated telecom industry. Over time, computer and networking technologies evolved and grew changing the way we do business and live our lives. The CTM Newsletter was created as a vehicle to foster continued conversation about tech associated issues that transcend specific technologies and specific industries. CTM conducted foundational Internet-of-Things research and created a community driven IoT network vision. Working with the engineers at USC's Viterbi School of Engineering, the cities of Long Beach, Los Angeles, the County of Los Angeles, along with a host of supporting companies, academic institutions, and private individuals, this vision was turned into Open Source software that was released in December 2019. I3 Systems was formed to pursue commercial opportunities based on the work of the I3 Consortium and the concepts published in the newsletter. With this grass roots tech movement, the newsletter evolved and continues these conversations even further.

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