

## Communications, Information, Technology, and Management

- From I3 Systems and The I3 Consortium -

### Volume 4, Number 2

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#### THE EDITOR SPEAKS - The Great Resignation: Shifting Priorities



Any college-level business course teaches students that it is 5 times more expensive to win a new customer than to keep an existing one. That same maxim can be applied to human resources during current times (“The Great Resignation”). MIT has reported that between April and September of 2021, the retail apparel industry experienced a 19% attrition rate. If that rate sustains itself, a company’s staff will completely turn over every three years. The United States Bureau of Labor and Statistics cites some industrial sectors as having even higher turnover rates in other business areas. Alarming trends like this have been reported across both white and blue-collar workers in all industries with varying levels of impact, including the software and networking sectors. However, there are major statistical differences between companies which implies this phenomenon is not so much tied to the economy and the pandemic as much as it is related to management practices.

Clearly, the pandemic-driven stresses of the last few years have magnified the differences between companies with a negative versus positive company culture.

The media and politicians often erroneously focus on dissatisfaction with wages as being the main driver of the great resignation. While low wages can create a negative environment, MIT reports that when employees are polled, they are ten times more likely to cite a negative corporate culture as their most significant motivation to leave or remain absent from their jobs. MIT describes a toxic culture as a work environment that fails to promote diversity, not treat employees equitably, or promote a sense of employee inclusion. These characteristics lead to situations where workers feel disrespected and perceive their employer as promoting an unethical environment.

Other than toxic work culture, issues with job insecurity that arises from reorganizations and other structural changes (such as layoffs) have a significant impact. And, while the need for companies to innovate, particularly, during times of uncertainty, those innovations often contribute to workplace dissatisfaction. It appears that while innovation projects are often rolled out with much fanfare for the innovators, little attention is being paid to the employees who are impacted by these same innovations. MIT also cites a high burnout rate within innovative teams that comes from the stress of establishing new paths forward. Other issues that are often cited by departing employees relate to a lack of employee recognition. This is disastrous for employee retention when employers overlook high performers or favor some high performers while neglecting others. A final issue that the research cites is frequently changing COVID response policies or a lack of company concern for COVID-related health concerns. Others have reported a key problematic issue is associated with a school/child-care environment that makes it increasingly difficult to raise children while holding down a job at the same time. US News observed that when the cost of healthcare rises faster than wages, employees perceive this as a reduction in compensation because the employee has less take-home pay.

This is not the first time the job market has undergone a cultural driver restructuring. When soldiers returned from World War I and II, there was a societal and pre-war cultural expectation they would return to their pre-war jobs. The reality turned out that the returning soldiers were no longer satisfied with jobs they had previously considered satisfying. When the soldiers returned from the battlefield, a time when they did not know if they would live or die, they returned with a deeper understanding of life’s priorities. The idea of returning to a low-wage job that required excessive work hours and sacrificing personal priorities in an environment where the employee’s contribution is not respected had become a difficult sale. Instead, the returning soldiers sought different jobs that provided better wages and work that gave them more self-respect.

Research has demonstrated that while compensation may not statistically be an employee retention driver, for many, the ability to consider factors outside of compensation may be a luxury. Sometimes, statistical averages mask the characteristics of some populations. In addition, studies based on individuals fail to demonstrate show the impact of multi-income families. For example, at a time when more families are supported by multiple incomes, if conditions for one person allow it, the spouse that may have accepted what they consider a poor work environment may now feel emboldened to find a better situation.

The MIT research reports several actions, outside of compensation, that serve to increase job satisfaction more than compensation. Actions employers might offer include including flexibility for lateral career changes, being supportive of remote work arrangements, company-sponsored social events, and predictable schedules.

It is a mistake to assume that the pandemic safety nets, unemployment benefits, or the increased level of demand from a surging economy are driving The Great Resignation. When departing workers leave their employer, the reasons for the resignation are typically related to long-standing issues that have become more important given the current state of affairs. Therefore, when an organization is faced with higher than desired turnover rates, the organization should not accept the situation as an inevitability but should instead look internally to forge a better path forward.

## UPCOMING EVENTS

- Feb 23-24, 2022. [Computer Vision Summit](#), San Jose CA
- March 4, 2022. [Horasis USA 2022 Meeting](#). Virtual Event
- March 17, 2022. [CIO Southern California Summit](#), Los Angeles CA
- March 22-23, 2022. [SoCalBio Digital Health Conference](#), Long Beach CA
- April 6-8, 2022. [Wireless Telecommunications Symposium](#). Virtual Event.
- April 19-20, 2022. [Enterprise Data World](#), Virtual Event.
- June 14-15, 2022. [Reuters Auto Tech](#). An online conference.
- October 27-28, 2022. [International Conference on Public Health Informatics Management](#), Los Angeles CA

*If you have an event that you would like us to include in our newsletter, please send an email to [manager@i3-iot.net](mailto:manager@i3-iot.net)*

## THE i3 CORNER

When we first began work on the i3 concept, we saw the growing number of data streams that organizations utilize to function. We anticipated these data streams would continue to increase. Integration of a single data stream into an organization's operational processes is a non-trivial task but once completed, the organization moves one step closer to being a digitally driven company.



Each step along the digital transformation journey is an exciting one. But this journey typically requires different teams to replicate the efforts of other departments. More maddening is that each department ends up managing these data streams differently making it impossible for the organization to have a consistent data policy that is supported across the organization.

The challenge for i3 is always to simplify the processes by which data is integrated and utilized by an organization and to do so in a way that maximizes reuse across the organization. In doing so, i3 appreciates that the goal of maximizing reuse not only applied to developer-integration tools but it also must be applied to the data itself. Organizations must strive to get the most value out of the data they manage by minimizing data replication. This not only cuts costs for the organization but reduces the potential for data conflicts as well.

Technology alone does not solve the replication problems which impair data efficiencies; it does provide the basis of a solution where the most daunting obstacles are human in nature. Reuse of data, or for that matter anything that requires a level of trust must exist between cooperating parties. While it could be hoped that all such relationships start with a sufficient level of trust to allow such collaborations to occur, the reality is trust must be developed gradually over time. This is why i3 puts an emphasis on the human mechanisms that allowed parties to build trust. The result is that while i3 could be technically categorized as a data fabric, it may be better to treat it as a data management facilitator.

Innovators are often advised that they must be able to describe their problem and solution as a 30-second elevator pitch or as a two-minute pitch deck. In this fast-paced world where people are rushed and encouraged to make quick decisions, this makes perfect sense. However, it also stands to reason that there are complicated problems (and solutions) that cannot be addressed as a quick commercial. Maybe i3's efforts to

facilitate an individual's desire to remain in control of their own destiny by informing them without diminishing their ability to make decisions can shed light on solutions to other problems that seem to defy a quick fix solution.

## **READER CONTRIBUTION: Legal Implications of a Ubiquitous Metaverse and a Web3 Future**

by Jon M. Garon, Professor of Law and Director of the Intellectual Property, Cybersecurity, and Technology Law program at Nova Southeastern University, Shepard Broad College of Law ([www.garondigital.com](http://www.garondigital.com))



The metaverse is understood to be an immersive virtual world serving as the locus for all forms of work, education, and entertainment experiences. Depicted in books, movies, and games, the metaverse has the potential not just to supplement real-world experiences but to substantially supplant them.

This article is based on the introductory and concluding remarks of a much longer paper which was published January 10, 2022 at [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4002551](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4002551). The published work explores the rapid emergence and evolution of Web3 technologies at the heart of the metaverse movement. Web3 itself is a paradigmatic shift in internet commerce. It begins by exploring the competing economic and philosophical approaches to the future of the internet, which is being driven on one hand by the most successful internet advertising firms (Facebook and Google) as well as their videogame competitors (Roblox, Microsoft's

Minecraft, Epic Games, and Valve) and on the other hand by Web3 advocates focusing on cryptocurrencies, nonfungible tokens, decentralized finance ("DeFi") and distributed autonomous organizations (DAOs). The published work is focused on U.S. law and reviews three core areas for the development of the metaverse: the regulatory environment; the transactional essentials; and the limits on governmental intrusion into the metaverse.

The review of the regulatory environment considers state and federal gambling laws, money transfer laws, securities laws, and regulation of unfair and deceptive trade practices used to enforce privacy and cybersecurity obligations. The section on transactional essentials focuses on contracts between metaverse enterprises and their customers, antitrust and competition restraints, copyright protections, protections of biometric data and rights of publicity, and protections of customer speech in metaverse environments. Finally, the work addresses the need for the continuing evolution of the Fourth Amendment protection from search and seizures, the third party doctrine limitations on reasonable expectations of privacy, and the statutory protections under the Stored Communications Act. When examining the long-term implications of the metaverse and Web3, any or all of these issues could impact the development, deployment, and rollout of such services.

While these doctrinal issues are not new, the scope of the metaverse and its potential social importance will reshape these doctrines in sometimes unpredictable ways. Technologists, practitioners, and regulators must be open to these shifts to appropriately develop the correct mix of user control, industry practice, and regulatory oversight.

Some version of the metaverse is inevitable. The growth of Roblox, the popularity of Bitmoji, and a generation of online worlds have intersected with the economic clout of cryptocurrencies, and the potential of nonfungible tokens to usher in a new set of use cases that will evolve to make Web3 as profoundly different from the current internet as the current environment is different from America Online and the early internet portals. Even in the domestic marketplace, the nature of new transactions will trigger a wave of updated regulation, business model innovation, and wealth transfer that will leave many wondering how we got here.

Fortunately, the fundamentals of the business have not changed. Relationships are governed by contract law, and contract law is interpreted through a longstanding common law tradition. Securities laws and antitrust considerations have been raised in each generation where new business models have sought to upend the historical way of doing business. Lessons from the Web 2.0 experience will likely leave both consumers and regulators of start-ups that seek regulatory safe harbors intended to let the new companies develop. Those Web 2.0 companies have grown to dominate the global economy, and the public appetite for sweetheart deals has likely passed.

The leaders of the Web3 movement are decidedly focused on reclaiming the property rights lost to Web 2.0. Using NFTs to enforce property and direct user control to discourage corporate overreach, the Web3 movement has the potential to rectify the imbalances of the past. At the moment, many of the promises may be loose predictions, but hopefully, this roadmap will help those building, investing, and regulating in these future technologies see where an optimal mix of private contracting, innovation, and government regulation. Since the movement will bring even more of our daily lives onto the internet, courts and regulators must also anticipate how that will affect our constitutional rights and civil liberties.

Two things are certain. First, this future that is already here will look quite different in the decades to come. Second, the metaverse will be much more than just a game. The rest has yet to be written.

## **The Platformization of IT**

**by Jerry Power**

A fundamental and significant shift is taking place in the IT world. In the early days of technology, IT departments were formed as a support organization, a group that assisted departmental teams to automate processes to reduce costs while, at the same time, accelerating operations. Over time, CTOs, CIOs, and CDOs, joined the C-suite as organizations began to realize that technology could serve as either a strategic enabler or an inhibitor. Effective use of technology for the benefit of the business required that these tech positions participate in shaping the evolution of the organization and have a voice in the process.

As these technology leaders moved into the C-suite, management conversations about the customer experience and the customer journey emerged as critical issues of management concern. Companies began to adapt customer-first philosophies when dealing with technology issues as the IT department began to evolve beyond its position as a support function to that of a critical operations group.

While these shifts produced many positive benefits for the organization, they also opened the door to a worrisome situation. As the organization began to focus on customer-facing issues, customer-facing applications drove IT architectures. Many IT organizations began to take on siloed organizational structures whereby each silo was tasked to ensure their assigned application meet the needs of a targeted user pool. And, as the organization's staff became more tech-literate, technology decision-making began to decentralize. As the number of applications grew in these environments, the number of siloed technology systems grew. While each siloed team could claim that their decision-making optimizing their ability to meet their team goals, differences between functionally targeted groups served to reduce overall effectiveness. Different teams ended up replicating the efforts of other teams and these differences made it difficult to implement policies that cut across the organization as a whole.

The pandemic shifted many businesses to increase their focus on digital business opportunities. This reprioritization increased competition for digital talent and increased the emphasis on efficient and effective digital solutions. Advances in technology have been able to drive down the initial costs of the technology to the point where digital efficiencies are now largely characterized by operational and maintenance costs. The best way to reduce these costs requires a move away from application-centric architectures and toward the adoption of digital platforms that allow costs to be amortized over many applications and operational teams. However, this shift toward platforms increases the need for systems planning. Companies cannot afford to simply write a check and ask an application supplier to deploy their technology in an effort to meet departmental-specific goals. Instead, platforms must be selected and deployed based on their ability to meet many different requirements. This takes planning. These next-generation systems architects must not only solve current needs but must also design for agility so unexpected future needs can be accommodated.

This platformization of IT demands that IT be involved in an organization's strategic decision-making processes. It also moves IT processes away from the practice of outsourcing design programs to outside organizations. Ultimately, the responsibility for departmental applications becomes distributed to the operational departments while the IT mandate is to focus on a common infrastructure that efficiently supports all departments. A part of this process includes a redefinition of what is considered an application and what is treated as infrastructure. Many organizations currently view infrastructure as a synonym for the connectivity network which is intended to ensure that two endpoints can interact digitally. A part of this restructuring will see the infrastructure team become more intelligent. Infrastructures will no longer be able to focus solely on connectivity but will also be expected to provide value-added services that simplify applications. Infrastructures will go beyond connectivity to provide a level of data intelligence that ensures the right data gets to the right place at the right time.

The creation of an intelligent data platform within an organization is not an easy task but organizations are assuredly moving in this direction. In some organizations, the conversation begins as an effort to knock down operational silos within the organization. At other entities, the conversation centers on the creation of a data utility that serves the company. When the conversation has a financial overtone, participants discuss actively managing data as a corporate asset. Regardless of how the conversation begins, the end result is the same. IT departments are building forward-looking IT systems around a series of modularized components with a sharp line of demarcation between the application and infrastructure spaces.

**READINGS FROM THE EDITOR'S DESK**

- **Data Governance Trends in 2022.** Data governance is a growing issue. It cannot be solved for application-centric IT architectures. Consistent data governance requires an organization have an end-to-end view of their data flows that cuts across all applications and departments.
- **The future of the public's health.** The pandemic has shown the problems associated with our disconnected health systems. Deloitte has a report which suggests a better path forward. Not an easy undertaking but a transformation that is based on increased collaboration from all parties.
- **Toxic Culture Is Driving the Great Resignation.** MIT research shows that compensation issues are impacting but not driving the great resignation. Work-life balance issues have always been present; these issues are becoming increasingly important and employers have to take

these shifts into account.

- **Legal Implications of a Ubiquitous Metaverse and a Web3 Future**. The metaverse and web3 are targeted to make up for deficiencies of the internet we know and love. The final form of this next-generation network is still hazy but this paper points to a myriad of issues that need to be considered as we move forward.
- **The data-driven enterprise of 2025**. Data is used to support major business decisions but by 2025 McKinsey believes all decision-making will be data-driven. In many cases, decisions will be based on real-time data - data that is managed as a corporate asset and derived from data ecosystems.
- **Busting the five biggest B2B e-commerce myths**. The pandemic has disproportionately impacted B2B marketing/sales programs. B2B used to be based on personal integrations but overnight much of the activity has become virtual. Some touchpoints are still needed but much less so than in the past.
- **Deploying effective data governance to achieve key business priorities**. Many companies consider data governance a regulatory/legal requirement. When properly managed, it can become a competitive advantage. To do this, you have to implement data governance as a part of the data infrastructure and not as an application feature.
- **Big data is dead. Small AI is here**. AI is often viewed as a magic box. However, AI systems are designed to solve a class of problems based on rules. Different rules drive different outcomes. Therefore, companies should accept that they will need many AI systems running different rules.
- **Fitbit and Apple know their smartwatches aren't medical devices. But do you?**. Healthcare wellness technology is different. Healthcare tech has been certified and the data should be accepted by healthcare professionals. Wellness consumer devices that monitor trends to identify a potential need to talk to healthcare professionals.

## About I3 and I3 Systems

Originally founded under the guidance of USC, the Institute for Communication Technology and Management (CTM) was formed to support a deregulated telecom industry. I3 Consortium spun out of CTM based on the position that increased technology collaboration must be married to increased business and data collaboration. I3 Systems was formed to develop software tools and pursue commercial opportunities based on these concepts. This Newsletter was created as a vehicle to foster continued conversations about issues that transcend specific technologies and specific industries. When the CTM organization was shut down, support for this newsletter was picked up by I3 Systems to ensure these valuable conversations continue to occur.

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