# Communications, Information, Technology, and Management (CiTM) - From I3 Sytems and The I3 Consortium-

#### June/July 2021

## THE EDITOR SPEAKS - Thinking Through the G7 Summit



The leaders of the G7 (Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States) met in June to discuss issues of common concern. The G7 represents the wealthiest economies in the world which share a commitment to pluralism and representative government. These countries represent 10% of the world's population, about 44% of the world's GDP, and nearly 60% of the world's wealth. Because the members recognize their collective power, the group understands they have a collective responsibility to demonstrate leadership through actions to ensure global prosperity. This creates an environment where the G7 and the rest of the world will flourish. Topics discussed by the G7 included trade, security, economics, and any other issue where a collective decision can produce better results than isolated decision making.

Topics covered at the June meeting included efforts to end the Pandemic. The meeting also included conversations about how to better prepare for future health emergencies and how to reinvigorate the economy after the pandemic driven restrictions are removed. Such wide ranging conversations considered the need to create jobs, improve infrastructure, stimulate innovation, and reduce the divides that

segment societies and limit growth (e.g. gender, ethnic, age, and education divides). Discussion was also directed at topics such as fairer trade, taxes, and even cyber policies. A resonating point was that the world must shift from crisis management to leverage the crisis responses that create a better post-pandemic world. Making that leap forward requires harnessing technology to enable transformations for the common good. Given that technology is a tool that can be utilized for good or evil, these efforts must be actively managed to ensure these endeavors do not create difficulties for future generations.

Climate change was one of the topics covered during the July 2021 meeting. This topic can serve as an example of an issue that must be worked collaboratively with international partners. If one country commits itself to fighting climate change but the rest of the world is not aligned, the positive impact of that country's efforts are significantly diluted because global weather patterns do not respect geopolitical borders. Moreover, if the majority of the earth's countries commit to combat climate change but one powerful country holds back, that single country can thwart the intended benefits on a global scale.

Another example relates to efforts to combat COVID-19. The global Pandemic is not in control anywhere until it is in control everywhere. Because the disease is so contagious, countries that achieve some level of control over the disease in local populations easily lose control as people travel between areas where the disease remains a threat. Advances in technology allowed an unprecedented and effective response to the Pandemic, but it was and is also accepted that access to these technologies are not equitably distributed around the globe. There was a clear call for continued investment in the healthcare space to permit the population to be more resilient to future healthcare emergencies and there was a mandate to take action to make sure underserved populations are not left behind. Baked into these conversations was an acceptance that improvements in the way parties share and use data are foundational concepts that support continued progress on this front. In such a collaborative environment, unanimous agreement on each topic is not needed; while some countries might be passionate about the need for global action, less enthusiastic countries must accept the will of the majority to ensure the partnership remains viable and able to address other issues of global concern.

One thing that stands out in the meeting is the acknowledgement that our digital economy must be better managed if the desired outcome is to enhance societal prosperity while creating an environment that is sustainable, inclusive, transparent, and human-centric. Specifically, data flows between organizations are a crucial underpinning to future economic growth. This can be achieved but only if the data flows that shape information exchanges are conducted in an environment of trust and transparency. Our ICT legacy systems were not constructed to be equitable and inclusive but instead evolved based on the idea that data represents power and should be restricted so as to allow data to become a critical differentiator.

Other topics discussed at the G7 summit included the importance of climate and environmental issues. As a central component to any initiatives taken in this area, the conversations pointed to the importance of data as a means of coordinating activities within any geopolitical arena as well as between geopolitical entities.

Often, reports from meetings like the G7 are viewed as efforts by individual leaders to position themselves on the world stage. This does happen with certain individuals but that is not the goal of these global summits. Instead, these meetings often focus on the tangible manifestations of these discussions when the more significant impacts are associated with the fundamental changes that re-shape platforms that drive more systemic impacts. It is encouraging to see this most recent G7 meeting as a reflection of the global forces that tie everyone together as well as their appreciation of the fact that it is technology that is the factor that will encourage or stymie progress.

Whether at the global or local level, successful collaborative partnerships are not a collective of self-interested individual participants. When striving to build such partnerships, the individual participants are agreeing to support a common agenda that produces benefits for the entire community.

#### **UPCOMING VIRTUAL EVENTS**

- July 14, 2021. Data Architecture Online. Key strategies and technologies you need to know in order to build and manage a modern Data Architecture.
- July 21-22, 2021. Smart Agriculture and Rural Broadband Workshop. Purdue University, West Lafayette, Indiana.
- July 26-29, 2021. <u>Future Cities</u>. A virtual event focused on smart cities technology and solutions.
- o Aug 30-Sept 3, 2021. IoT Week. A virtual event hosted from Dublin Ireland.

- Sept 7-10, 2021. IEEE Smart Cities Conference. A virtual conference hosted by the IEEE.
  - Sept 8-9, 2021. Smart City Expo Atlanta. Georgia World Congress Center.
- o Sept 17-19, 2021. Data Con LA. One of the largest data conferences in Southern California.
- Sept 21, 2021. I3 Consortium Meeting, A virtual meeting hosted by the City of West Hollywood on Data Policy and Governance.
- o Oct 4-5, 2021. <u>Dubai Smart Cities Expo</u>. Dubai International Flnance Center.
- Oct 26-28, 2021. Mobile World Congress (MWC) Los Angles. Significant trade show for wireless industry held in Los Angeles.
- o Oct 28-31, 2021. IEEE Symposium on Technology and Society. A virtual event hosted by University of Waterloo and University of Guelph, Canada.
- o Nov 2-4, 2021. The Infinity Festival Hollywood. A hybrid event (physical and vivirtual).
- Nov 16-18, 2021. Smart City Expo World Congress. A hybrid (physical and virtual) event focused on smart city technology.
- Dec 2-3, 2021. International Conference on Urban Studies and Internet of Things. Sydney, Australia.
- Dec 9-10, 2021. International Conference on Smart Cities, Big Data, and Machine Learning. New York City, New York.
- Dec 10, 2021. Connected Communities Conference, Raleigh NC
- o Dec 9-10, 2021. Conference on Urban Studies and the Internet of Things. London, England.

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

## THE I<sup>3</sup> CORNER

Release 1.0 of the I3 software will be released imminently. The system is currently undergoing final testing, once the test program green lights the software it will be released. Based on current progress, the development team expects the software will be released before the end of July. The development of the software has been completed and we are working our way through a test process to validate functions and operability. The software is now available for online purchase at <a href="https://i3-iot.com/shop-i3">https://i3-iot.com/shop-i3</a>. We have launched a partners program which provides an opportunity for integrators and distributors to incorporate the software into a larger systems solution or to resell the software to their customers. I3 Systems is currently working to create an educational license which should roll out in the next few months.

I3 Systems is currently building a release 2.0 feature wish list. While we have not finalized the feature enhancement to be included in release 2.0, we believe release 2.0 will be just as exciting as release 1.0. A well-earned round of thanks goes to the I3 development team as well as the I3 community at large. Moving I3 from what began as a contemplative question in 2016 into a commercially supported system has been an exhilarating journey. Efforts from the many members of the I3 community who offered the advice, encouragement, and suggestions have made it all possible.

The next full I3 Consortium meeting is scheduled for 11AM (PST) September 21, 2021. This virtual meeting will be hosted by The City of West Hollywood, and will focus on data policies and governance. If you want to be put on the mailing list to get logistics for the meeting, all you have to do is send an email to i3-join@i3-iot.org.

Currently there is an active I3 workgroup operating that is being championed by the City of Los Angeles Sanitation Department. The Sanitation Department has been installing video cameras on their trucks as a means of supporting their safety requirements. There is a plan to upgrade this technology but the Sanitation Department wants an upgraded system which will be able to provide valuable data to other City departments. As an example, the upgraded system should not only support the needs of the Sanitation Department, but should also be accessible by the Department of Transportation so they can utilize the system to identify emerging issues and plan repairs accordingly. In doing so, the Sanitation Department transforms what had been a Sanitation Department data asset into a City wide asset. The next working group meeting is being planned for late July or early August 2021. We expect to have some base system in place by then and we will begin planning to (1) to test the base system and (2) expand the base functionality.

## READER CONTRIBUTION: Innovation and the Baskin-Robbins Effect by Jeffrey Phillips, COO at Panaceutics



I'll start by noting that I like ice cream. In fact, one could say that I am a connoisseur of ice cream. I like to eat ice cream at home, and when I am traveling I like to sample the local styles and flavors. Wisconsin, for example, has a lot of custard shops. Italy has delicious gelato. And so on.

A childhood treat was a visit to Baskin-Robbins, which is famous for its range of 31 flavors. Every child dreamed of going to Baskin-Robbins, because they could choose from exotic flavors you'd never find in stores. However, when I became a parent I dreaded taking my kids to Baskin-Robbins, because there's nothing worse than a kid who has a product they love, but far too many choices to make.

Most corporations suffer from what I call the Baskin-Robbins syndrome when it comes to innovation - there are far too many options and flavors, and that makes choosing the right innovation activities and investing in the right innovation outcomes exceptionally difficult.

#### So many innovation flavors

The opportunity and problem with innovation is that it means whatever the speaker wants it to me. How this plays out in organizations is that one person thinks and says "innovation" and means continuous improvement. Another says "innovation" and means increased investment in product R&D. Another says "innovation" and means service models or experience improvement. Yet another person says "innovation" and means crowdsourcing and employee engagement systems. And so on.

What happens is that on the surface, all of this activity seems reasonably valuable. What could possibly be wrong with lots of small experiments all throughout the company on different types of innovation? In reality, what this leads to is lots of small projects, where many aren't focused on important new opportunities or markets that are vital for

the longer term success of the company. So, while there is a lot of activity, much of it does not address key challenges.

#### How to choose

This raises another Baskin-Robbins dilemma: how to choose across highly variable projects with uncertain outcomes. Many management teams are presented with a diverse range of "innovation" projects and potential outcomes. Forget about comparing apples to apples - this is often more like comparing apples to anvils - the entire classification and category is different. These are different tasks, for different outcomes, that in many cases don't solve or address interesting problems.

If you as a parent have experienced watching your child try to choose across 31 flavors of ice cream, and the agony that can create, imagine trying to understand and vet requests to fund innovation projects that range from incremental change to existing products to blue sky, disruptive innovation in new markets to creating an internal VC or accelerator.

#### The most important clarifying question

Perhaps the best, first question you can ask your kids before they go into Baskin Robbins is: what do you want? Get them to focus on one flavor or at least one category of flavors, to narrow the selection dilemma. The same is true for innovation.

Executives should make clear statements about what outcomes they want from innovation, and what they are willing to support and fund. With these bright lines established, innovation teams can decide to work within those constraints and align to what executives want and expect, and are willing to fund, which makes decision making easier.

This approach allows executives (if they are willing to do so) to align strategy to innovation activities. It allows them to signal which problems or opportunities are most important. It signals what kinds of innovation and what outcomes will be important or valuable.

This is kind of like saying to your kids: you can go to Baskin Robbins, but only focus on the chocolate flavors, and only in a bowl. By setting parameters and narrowing the focus to what is important, the options narrow but the selections and outcomes are more in line with the goals of the business.

#### When everything is equal

The alternative is that every alternative is equal and has equal merit. So that a small innovation to improve employee morale is as important as a new R&D project to discover new technologies, or a crowdsourced idea to create a new product. When presented with these varied options and not clear needs or frameworks, it's no wonder that executive teams simply throw up their hands and refuse to make a decision.

Like it or not, we have to create prioritization frameworks and identify the areas within the business that need the most help, or acceleration, or that have the best chances for new market growth. Defining where the opportunities lie, and establishing prioritization for projects is what executives should do.

Just like when your parents steer you to the chocolate ice cream and tell you you can't spend more than a \$1. Now, within those constraints, you'll optimize your choices. But far too often executives leave innovators with the Baskin Robbins effect - all alternatives are good, and none have preference, and there is no clear prioritization model.

This article was originally posted on Jeff Phillip's blog, "Innovate on Purpose" where you can find more of Jeff's work.

## The Data as a Strategic Enabler by Jerry Power

Think about technology as a leg of a stool. A stool with one leg is unable to stand up but when you add two additional legs it becomes a functional tool. A platform that can be utilized for sitting or for a number of other purposes. The other two legs of this stool are strategy and organization.

Ten years ago, IT departments were set up as a centralized group of specialists who supported other departments who utilized technology to improve the business. It was a true support function where IT staff did not need to understand the workings of the business as long as they could make things work. However, over time, company employees started becoming much more technically literate. They had access to technology at their homes and younger employees grew up in a tech enriched environment. These forces of change are impacting IT departments, both their mission and their organizational structures.

What has happened is that a lot of the services that historical IT departments were expected to provide has actually been shifted to the operational departments. A modern IT department has taken on a much more strategic role for the organization where the functions of the IT department determine what the organization can and cannot do. The IT task has essentially shifted. Instead of IT providing support for other departments, IT has become the determiner of what the other departments can and cannot do. This shift has made it critical that the IT department staff understand the business fundamentals of the organization.

This same shift has also changed the organization structure of companies. It is imperative that all departments in a company become accustomed to supporting their own tech needs – within the guidelines established by the IT department. It has also made IT representation a critical issue for any conversation about corporate strategy. Furthermore, these same winds of change have also changed the way companies are organized and the desired skill mix that is expected from IT staff and for that matter, the tech expectation of every organizational employee.

These evolutionary pressures on an organization's structure have not ceased. Many companies have established data analytics departments and named a chief data officer or possibly a chief data security officer. The departments and individuals demonstrate the growing importance of data for any organization. It is expected that over time, every employee within an organization must have some familiarity with the data analytics field in the future. Children who are currently in school have grown up in a world where data shapes the nature of the way life is lived. As these children mature and make their way into the workplace, it is expected that they will take their appreciation for a data driven world into the future workplace. And, like the emergence of technology served to redefine the IT role, the growing importance of data will change the role of today's data analyst to become a strategic organization. There will likely be a day when any strategic shift begins with a question about whether the organization's data assets will be able to support and inform the transformation shift needed to activate such a strategy.

Any organization must adapt as conditions in the market change or as their employee resources change. The most challenging changes are those that require changes to the needed employee skill set or changes to the organization. These changes are so difficult to navigate because they are not isolated and impact the entire organization. If the organization knows and accepts that the need to change is fast approaching, they can prepare for the change well before the competitors have embraced the issue and put the company at a strategic disadvantage. Companies must plan for their own data driven organization transformation today, knowing that their future survival may depend on it.

#### READINGS FROM THE EDITOR'S DESK

- How Wearables, IoT and Data Paint Healthcare's Bright Future Conversations about tech in the healthcare industry often focus on data producing devices or applications that use this data. More focus on the data architecture that links data production to data use is needed for scalability and efficiency.
- What Makes an Exceptionally 'Smart' Hospital? Technology is critical to any hospital for diagnosis and treatment. Patients expect their healthcare providers to take advantage of these tools. These are table stakes what makes a provider great is their focus on the patient's healthcare experience.
- What Is Governance and Why Does it Matter for the Digital Workplace? Data governance is an important aspect for any digital enterprise. At present, IT is usually responsible for governance but that mistakenly pushes the responsibility from those that create and use data to facilitators that are supporting the exchange.
- <u>Data governance strategies for Today's Evolving IT Landscape</u> Data should be managed as though it has its own lifecycle. And, just as there are product managers that manage a product's life cycle, perhaps there should be data managers that drive the data lifecycle (protecting the data, advocating its use, etc).
- Automate for People, not for Processes. Many automation projects begin with the goal of streamlining a process that was developed to be a manual process. Better results can be achieved by focusing on how that process contributed to a larger system that people needed.

#### 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 <a href="mailto:admin@i3-iot.net">admin@i3-iot.net</a>. 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 13/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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