

Communications, information, Technology, and Management (CiTM)

April 2020 - Communications, information, Technology, and Management

THE EDITOR SPEAKS - Planning for a New Normal



As soon as the pandemic began, it was clear that we are facing an unparalleled crisis. Conversations initially focused on trying to quantify the magnitude of the impact with an eye towards a return to 'normalcy'. As the complexity of the situation and the significance of the impact to our physical and economic health became clear, the conversation shifted to include situational management and the idea that recovery would point us toward a new normal.

While not in our life time, world history has been periodically reshaped by global pandemics and economic shifts that served to reshape the world. Yes, we have always recovered from such calamities and thankfully the relatively rapid response appears to have side stepped the worst case scenarios. All the same, it must be assumed that after the dust settles, the structural shifts to society will impact the fundamentals of our behavior, our economy, and even the way we govern. Knowing that such change is coming provides us with the opportunity to shape these changes toward our benefit.

Harvard's Nancy Cohen recently wrote an article focused on how leaders are forged in times of crisis ([Harvard Business Review](#)). While Nancy's article is focused on leadership, there are parallels that equally apply to leading corporations. When someone looks at the leading corporations of any age and begins to trace the history of those companies, they were often formed at a time of crisis or disruption. Of equal interest, the rise of these companies often serves as a counter point to the demise of a legacy leader that were not able to sense and react to these major points of disruption and then found that they were replaced by swifter and more strategic competitors.

This is not to say today's market leaders will be necessarily be "swept away" as the market seeks to find a new normal or unicorn companies will topple the economic order by fiat. What it does say is that the needs of a company's customers will undergo significant change; priorities will be changing, and they will be open to new solutions that better fit their new environment. Customers understand they must adapt to a world that is changing in front of them and they accept that they have new needs and that the familiar solutions to established needs may no longer be the best option given the new conditions.

This, perhaps more than any other time in recent history, is a time for strategy and a focus on a rapidly evolving customer base. Be willing to let go of preconceived market assumptions that have been forged under vastly different conditions. Be open to experimentation; be adaptable, and remain flexible knowing that business conditions will continue to change for the foreseeable future.

As a final note, while it is important to focus on the changing customer, do not neglect the fact that the pressures and needs employees face are also changing this dynamic environment. Efforts to change the corporate culture to focus on an evolving customer base are difficult in the best of times, but when the employees are under their own personal pressure, the challenges can become exponentially more difficult.

UPCOMING VIRTUAL EVENTS

- **May 13, 2020.** [Managing the Digital Transformation Destiny of your Business](#) (7am-8:30 PT)
- **May 14, 2020.** [Designing for Change: Digital Transformation in the Time of Uncertainty](#) (7am-9am PT)
- **May 14, 2020.** [I3 Virtual Lunch](#) (noon-1pm PT)
- **May 18, 2020.** [MIT Sloan CIO Symposium](#) (7:30-9:00am PT)
- **May 27, 2020.** [ProductCon: The Product Management Conference](#) (9am-2pm PT)
- **June 3-5, 2020.** [Global IoT Summit](#)

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: A Report from "Down-Under" by Ric Clark, Director AgriFutures Australia



This is a 'sitrep' on the rapidly changing CV19 environment in Australia today and I will discuss a little the potential longer term impacts well after the pandemic is under control. From my years being based overseas I am an avid reader / listener to both NYTimes and BBC online so am in a reasonable position to also reflect on our situation versus that of other Western economies.

From a timeline perspective CV19 was first detected here at or just after the USA. In fact the majority of initial cases were from travelers to/from the USA and you would be aware of the high profile case of Tom Hanks who has since recovered. Australia benefits from its isolation and lack of land borders, but this is offset by our propensity to travel; far more so than Americans. My wife and I should, as an example, be in Uzbekistan on a "Silk Road" tour but that has naturally been called off. There are thousands of Australians stranded around the world caught by local prohibitions and reducing commercial flights. It is also the Southern Hemisphere cruise season. In March there were 11 cruise ships in southern waters with a further 19 in the Northern Hemisphere with Australians on board trying to negotiate safe harbor; 3 were anchored off the Perth coast in Western Australia awaiting a tourist island being converted to a quarantine center. A month later the last of them just departed for its home port. Most cases to date have been from those in contact with travelers although we are seeing some community transmission including cases among health workers.

Population density is confusing here. We have a vast underpopulated island continent of which the 24.5 million inhabitants are among the most urbanized in the world! Almost 80% of the population live in or south of Brisbane along the East Coast with both Melbourne and Sydney housing around 5 million each (both larger than Los Angeles!) in sprawling suburbs of mainly detached homes. Add Adelaide and Perth's sprawling metro areas and we are almost 90% urbanized! This is obviously working to our advantage in comparison to say New York or the industrial north of Italy. We have many remote towns and settlements in the 'outback' and their best defense has been isolation to date.

The island state of Tasmania implemented an early travel ban from the mainland but even this hasn't stopped them having a 'cluster' of cases, mainly among health workers, who were in contact with a passenger from a cruise ship. About 10% of our cases (and deaths) are linked to one mis-managed disembarkation of a Princess Line cruise ship in Sydney alone. Ironic for a conservative government that prides itself on turning away refugee boats; our Mexican border wall, but that is another complex story!

Having said that our "curve" is tracking more like South Korea than say Europe or the US, mainly because of our early lock down; more so than overt prophylactic measures after the event. As I write this our total nationwide infections are at 6650 (22 reported yesterday from a daily peak of nearly 500 3 weeks ago) with deaths at 75. Our state recorded only one new infection yesterday despite/because of best practice testing. Repatriating Australians overseas has become a major logistics exercise and key risk for infection. Once empty city hotels are now being repurposed as quarantine centers for them. As community transmission is reasonably under control, fairly effective manual contact tracing is still possible although a Bluetooth proximity app may be rolled out as part of loosening the lock down; with understandable privacy concerns.

All of the above comes on top of 3 years of drought for most of the east coast then the recent horrendous fires that burnt the equivalent area of Belgium. January seems a long time ago. Our economy is/was solid but this will precipitate our first recession in over 30 years; we dodged the GFC largely because of mining exports to China; our largest trading partner. Our other enemy is the season. We are in our autumn / fall and heading into winter. Whilst our winters are mild compared to Europe and Nth America it will be regular flu season which will further draw on resources and confuse diagnosis. Early indicators are showing however that with heightened CV19 hygiene awareness, regular flu will also be somewhat suppressed.

Our governmental response too has been handicapped by our federal system, although party politics is nowhere near as polarized as in the US and UK. The ruling party here is determined by who can get to the middle ground first. In the OECD index of political stability, we are usually in the top 3; it's not that we don't change governments or prime ministers it's just that it doesn't materially matter that much in the global scheme of things when we do! A national emergency cabinet of state and federal leaders representing both major parties has been formed and all governments and oppositions both at state and federal level have acted largely in a bipartisan manner; perhaps because it was well practiced during the recent bush fires. Where it has come unstuck a little is poor coordination and messaging between the levels of governments with multilevel initiatives being confused by definitions (e.g. "Essential Services" was variously interpreted) and some state premiers (your governors) went harder, eg Melbourne's state, Victoria, is being a little more aggressive than say Sydney in the state of New South Wales, which is further confusing the federal messaging and response. But they are improving.

Whilst we like to think of ourselves as rugged "Crocodile Dundee" type individuals we are a pretty obedient lot when it comes to lock down and the CV19 remains a health crisis here and has not (yet) become a moral dilemma over lives vs economy like parts of the US. We have been so prosperous since the 80's, it feels like a recession is overdue and fortunately no federal general election is imminent. Federal and state assistance has been rolled out amounting to about 10% of GDP which will plummet government budgets into deficit for decades. Focus has been on subsidizing wages to keep people employed even if stood down and reinforcing normal social security and universal health provisions. Business benefits will be launched upon recovery. There is even a novel initiative from the federal government, who run the tertiary education sector, to offer free online graduate diploma courses in allied health and networking / security given they are skills now in great demand. Perhaps because of the generous government assistance the moral dilemma has not been politicized with some informed / balanced comment on social media (!) https://www.linkedin.com/posts/ricclark_cv19-coronavirus-mediacoverage-activity-6653236123986419712-bFA1

Whilst we have been fairly successful in "flattening the curve" with there is also a realization that the flatter the curve, the longer the isolation awaiting a vaccine / treatment. Containing CV19 is only half the challenge; defeating it is the next. In the meantime, with or without lock down loosening, people will get sick and die, encounter ICU shortages and hundreds of thousands will face unemployment and hardship both here but more so in our less wealthy Asian and Pacific neighbors. Ironically, we observe the cases spiking in once 'best in class' Singapore upon loosening the lock down with growing agoraphobia.

From a communications perspective it has been interesting to watch how this crisis has been managed compared to the bush fires. Key messaging and the single point(s) of truth were the state based fire commissioners who told it like it was good or bad; and it was mainly bad as evidenced daily on our TV screens. Politicians were there but general as a support act. With CV19 we have reasonably consistent but poorly coordinated messaging fronted by our political leaders, supported by federal and state chief medical officers with differing emphasis. Single point of truth has been sought elsewhere by the public and, in my view, the bar has been set by the medical reporter for our ABC (Australian Broadcasting Commission) Dr Norman Swann. Years of media experience has taught him to cut to the chase, use data carefully/appropriately and avoid conditional statements. Despite this we haven't all shown the best side of humanity with fights over toilet paper and panic buying of beer!

Probably a little unfair to compare the performance of the fire commissioners to the communication of CV19 crisis. CV19 is a new and invisible enemy. Wild fires are an annual fact of life here and the processes and the commissioners are well known and practiced. We probably should, and no doubt will now be better prepared for pandemics too. Our chief medical officers are now reluctantly honing, by necessity, their profiles and credibility.

From a communications industry perspective and for industry in general, this will clearly change our ways of working in the future. Especially being based out of Australia, many of my sales and marketing colleagues spend their lives on airoplanes (as I once did). With the universal provision of broadband, grounded friends are all working from home (as noted by their CFO's too!). One excellent improvement since our early days of audio and jittery video conferences is encouragement to use them also for social catch ups among work teams. Lots of focus on telecommuting, internet performance and security / privacy given 'online' will be our way of life, both work and social, for the foreseeable future.

On a more philosophical level I would hope it also resets our values. The cult of global celebrity and social media all enabled by our technology will now be compared to the real heroes of this crisis. Doctors, nurses, cleaners, emergency service workers, teachers, utility technicians, delivery drivers and supermarket workers are now far more important to ongoing civilization than "Likes" and the dangerous, non-fact-based decrees on prevention by self-important "influencers".

As our Australian Government Chief Medical Officer (the equivalent of your Anthony Fauci) said last week, "there is no other country in the world I would rather be". This is through the benefit of good luck, leadership and the opportunity to observe and learn from both good practice and tragic outcomes from afar. My heart goes out to those dealing with the latter. As I said at the start, things can change quickly and I can / will be proven wrong. What is certain is it may get worse before it gets better, but it will get better. Stay safe until then.

THE I³ CORNER (i3.usc.edu)

The Stay-at-Home orders and limits on Group gatherings have had impact to grass-roots consortium programs like the I3 Consortium. For anyone who has not attended an I3 Workshop, the presentations and demonstrations have been both interesting and insightful but the true value of these events has been the interchange and conversations that happen between the attendees. It has been difficult to recreate that kind of dynamic exchange in a virtual world. Another complicating factor rests in the fact that the I3 Community includes a number of government and university personnel who are currently focused on Covid-19 related issues and these efforts must take priority. In the spirit of moving forward toward a new normal, rather than trying to recreate an I3 Workshop experience on-line, we would like to try something new – something different. The idea is to invite everyone in the I3 Community to join us for a VIRTUAL LUNCH. We have lunch in front of our computers with other members of the I3 Community. We can talk about what we have been doing, successes and problems, and other ideas that might be worth bouncing around. No agenda but if the conversation indicates the need for a dedicated session on a topic, that can be accommodated. Since I3 has always been driven by the conversation between community members, let's try to embrace that spirit.

The first I3 Community virtual Lunch:

Noon-1pm (pacific time). May 14, 2020

[Click Here to join the Zoom Meeting](#)

Meeting ID: 975 0118 9081

Password: 384807

Alternatively, you can dial into 669 900 6833 US (San Jose) or use a [different Zoom dial-in number](#).

And, as a reminder, if you are looking for the I3 opensource code, it can be found at <https://github.com/ANRGUSC/I3-core>.

The Need for an Information Infrastructure by Jerry Power

The Covid-19 issue is an immediate crisis situation that we are struggling to manage. Without casting blame, there are many lessons that will come from these experiences that must be on-boarded if we hope to be prepared to deal with similar issues in the future. Throughout the process, many leaders have stressed the point that our reactions must be guided by science and data. Such statements suggest that as we move forward, one of the questions we should consider is whether we should have been doing more with respect to science and data beforehand. The need for advancement in science and the need to encourage additional STEM investment is understood but perhaps these efforts should be funded at greater levels. In contrast, questions about the importance of better leveraging data has not been a topic of discussion it should be.

Specifically, only recently has the broadband communications network been treated as part of the national infrastructure. Inclusion of broadband as a key infrastructure element is imperative and the incremental strain placed on the network demonstrates the need to increase investment in this infrastructure to improve performance, reliability, and access for all. However, the conversation cannot afford to stop there. Broadband networks are needed to move data bits from a source to a destination but without context, the significance of those

bits are lost. While all government entities, research centers, and businesses are all connected via the internet, it has been a Herculean task to compile the data from different sources in order to grasp the situation. Data, as it is collected, should be easily integrated into composite data fabric, which can provide decision makers with a real-time view of the crisis.

We have the technology necessary to create a regional or national data infrastructure. Such a framework would allow those with data to contribute their information, in real-time, to a common information fabric that cuts across organizational structures. This information framework, a level above a communications network, serves to inform and guide leaders in their decision making process. Such an infrastructure avoids current situations where it appears that different leaders are attempting to make decisions based on different facts or making decisions without any facts.

If the technology exists to create an information infrastructure, why does this not already exist? There are several open issues impeding progress on this front. First, many cities have open data portals (you can find the Los Angeles Open Data Portal at data.lacity.org), no organization or funding has been identified to begin linking these systems together. Second, for such an infrastructure to be effective, it cannot be a government-focused effort. The vision must include participation of academic and private entities. As an analogy, consider that the Internet itself began as a government driven effort, evolved to include universities, and only once private entities began to participate, did it become a utility that we all rely upon.

A second infrastructure lies in the concept of data ownership. Who owns, manages, and is liable for the information contained in such a participant sourced information infrastructure has to be considered but these issues are no different from those faced by the early Internet pioneers. When social networks emerged to allow sharing of opinions, such issues could be avoided but are not under open debate given that many people have come to rely on these networks for their news. In contrast, an information infrastructure that aids in the decision making process cannot side step such issues. There are other issues associated with the construction of such an infrastructure such as the economics behind creation and maintenance but none of these issues are insurmountable.

One of the major lessons that should come out of the Covid-19 experience is the need to build upon our data infrastructure to create an information infrastructure that better serves future decision makers. While there are some groups working on components of what is undoubtedly a large undertaking, the Covid-19 conversations around the topic must be expanded, the active groups brought together, and an action plan must be established to ensure we can better respond to future crises.

READINGS FROM THE EDITOR'S DESK

- [How to Implement Process Improvements for Your Small Business](#). Process improvements are not accidental. Start with objectives, map existing processes, seek team inputs, fill in gaps, test the system, obtain buy-in before scaling, monitor progress, eliminate variation, and optimize.
- [Great Depression Economics 101](#). Economics is complicated as there are so many moving parts. Covid-19 makes economics even more difficult given that there is no precedent that can be used as a reference point. An article from H. Shefrin does a great job explaining the cause and effect of Covid-19 on the economy while painting a picture for what to expect during recovery.
- [One Approach to Repeat Business: "Customer Success Managers"](#). Successful companies must work to ensure their customers are successful. This is true when a company utilizes a subscription model but it also applies in a world where social networking is prevalent. Delivering a great product is no longer sufficient.
- [Coronavirus Will Change the World Permanently. Here's How](#). An interesting collection of 34 opinions highlighting how Covid-19 will have long lasting impact to the world. Key points include Covid-19's potential to impact individual and societal behaviors, changes to regulatory/legal policies, accelerated adoption of conducive tech, increased emphasis on science and data, different government structure/services, and changes in consumption and entertainment.
- [How chief data officers can navigate the Covid-19 response and beyond](#). Chief Data Officers play a pivotal role in responding to the Covid-19 pandemic in that they must manage the data that drives the organization's response while at the same time preparing the organization for the new normal.
- [Digital Strategy in a Time of Crisis](#). Transformations must be driven from the core (not a bolt-on) as they impact business models, products, employees, partners, and processes. Good transformation programs are rewarded. And, current crisis accelerates the need to take decisive action.

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 to us. If you have suggestions, topics you want to see included in future newsletter updates, or other general inquiries, feel free to email me 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 other member of our community of interested people.

ABOUT 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 opensource software that was released in December 2019. Operational management of the I3 program is spun out of USC in 2020 as the I3 Consortium to allow the university to focus on research while the consortium supports the operational needs of the I3 community. The CTM newsletter evolved to become the CiTM Newsletter in order to continue the conversation even further.