

# Digital Workplace

Gen Z Thinks Digital. Does Your Organization?

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Krish Ashok

## IN BRIEF

Businesses are forced to reinvent their workplace to accommodate digitally savvy employees. Improving the email client or allowing employees to bring their devices to work does not make a workplace “digital”. A complete rethink of analog processes is called for.

This article outlines some ways in which an organization can make workplaces engaging and thereby boost agility, skill building, efficient project management and organic performance evaluation using digital processes.

I'll set the context to digital workplaces with a couple of comparisons. In its 2:00 pm online update on April 9, 2012, several publications including The New York Times reported that Facebook Buys Instagram for \$1 Billion. On that day New York Times' market capitalization was US \$0.89 billion, a tad lower than the acquisition price of Instagram, a “photo and video-sharing social networking service”. On November 20, 2015, Bethesda Game Studios released its video game *Fallout 4*. The game generated sales revenues of US \$750 million within the first 24 hours. On the other hand, the first movie to collect over a billion dollars, *The Titanic*, took several months to do so. Titanic had a cast and crew of over 2100 people, not counting crowd scenes. Bethesda Studios, at the time of this writing, employs about 400 people.

The public perception of time-honored, venerable, large institutions is often not proportionate to their actual size or history. Instead, their value is attributed to other qualities. Instagram democratizes information sharing. The video game *Fallout* is the output of a small creative team. The rewards for agility, creativity, immersive engagement, and peer networks are exponential. Welcome to the digital world.

### Reimagine, digitally

It is time workplaces recast themselves digitally, too. Applying technological lipstick on top of processes that were designed in the assembly line model simply won't work.

Let's take the case of emails. Making your email clients super cool is

## Fact File

**TCS Research:** Digital Workplace

**Outcomes:** Quantification of learning skills. Team Collaboration, mobile workplace, faster query resolution, Information sharing

**Principal Investigator:** Ashok Krish

**Academic Partners:** Yale University

**Techniques used:** Machine Learning, Cloud computing, microservices, devops, gamification, conversational chatbots, microlearning, Big Data analytics

**Industries benefited:** Industry agnostic

**Patents:** 3 applied; 1 granted

not really thinking digital. Email, as a method of communication is 40 years old! The truly digital have moved on to conversational apps like Slack, WhatsApp, and Facebook Messenger. In most enterprises, collaboration as a process is fundamentally broken, and demands a complete rethink.

Here's an industry-specific example: Big box retailers in North America are rushing to invest in robots for warehouses to not only cut personnel costs but also improve efficiencies. But they are realizing now that their warehouses was designed for humans, not robots. This means that the aisle spaces, the racks, the sorting, and much more needs to change to accommodate robots.

### The digital sphere of an employee

Most organizations have employees across different generations: Baby Boomers, Generation X (born between 1961-1980), Generation Y (born between 1981- 95), and Generation Z (born in 1996 and later). However, recruitment happens increasingly in the Y and Z space. Here are some formative

experiences that Gen Y and Z have gone through:

Exponential technology growth in terms of mobile, social media platforms, cloud computing; 3D printing, Artificial intelligence, and robotics, among others

The uncertain political climate following the 9/11 attacks, the invasion of Iraq, wikileaks, global warming etc.

Global connectivity – they are used to always being online, impromptu physical travel with one's own plan curated through social travel platforms, video hangouts in the palm of their hands.

Their world exemplifies the power of the consumer. It is the world of Uber, Fintechs and streaming media. They have grown up with the pay-per-use model, prefer to rent, not own. They network, and don't live in silos. They're accustomed to teams that work as swarms that can converge and disengage.

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with either experts or computer agents to complete the activity.

### The work-aloud workplace

The new workplace works aloud. By that I mean there is more transparency, socializing, and chatter across the organization as work happens. The employee in the tool room can chat with the guy in the IT department; the CEO can converse will all the employees in the company whenever they desire. There is 'ambient awareness' in the workplace and employees indulge in several activities simultaneously, exhibiting 'continuous partial attention', something that was frowned upon till recently.

Socially and technically, monoliths are crumbling. Hierarchy is flattening. You can bid for job, form project groups on a voluntary basis, and crowdsource problem-solving. 'Chat-ops' drives knowledge sharing and team work. The chat interfaces become a continuous stream of record and engagement. 'Dev-ops' decentralize the application development model. The IT department is not the only application builder in the organization, since apps in the enterprise store and API plug-ins can come from all over the organization.

### AI and the machine-first workforce

Robots sharing work with people is disconcerting but inevitable. AI concierges entered enterprises some time ago. Similarly software robots entered the business process automation space. At TCS we have used chatbots to service HR helpdesks for various queries around insurance policy, leave, organizational processes etc. This

is how a Gen Y employee typically designs their digital sphere:

**Workplace:** My workplace is my device(s); follows me everywhere, is widely connected, and highly secure.

**Set up:** I set up my workplace with a few clicks, connecting to ready resources on the cloud.

**Support:** My virtual personal assistant supports me instantly; it connects me to the nearest expert for quick resolution if needed.

**Updates:** Auto-heal services monitor and maintain my Workplace proactively.

TCS has implemented and is evolving a platform called Prime, that incorporates these principles. Platform Prime implements systems of engagement (Geoffrey Moore<sup>1</sup>) in an effective way. As a platform, Prime bridges the gap between our knowledge management, transaction, and collaboration systems. It proactively uses machine intelligence and learning to provide the information needed to perform the tasks, without being bogged down by mechanical processes and tedious, unchanging workflows. It also enables effective collaboration

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1 <https://info.aiim.org/systems-of-engagement-and-the-future-of-enterprise-it>

was a disruptive move for us. As a part of the service industry, a segment of our billing happens on the basis of the number people we employ for tasks (time and materials model). In proactively embracing a 'machine first delivery model', we free people from doing memory-based, repetitive jobs that can be efficiently replaced by an algorithm – a move that does not benefit us in the short-term. But TCS believes if it does not embrace automation, the risk is greater, and we could well be history.

### Learning – the T factor

With AI taking over certain kinds of jobs, technology professionals have to groom themselves for new roles with new skills. The skill profile of the near future is a combination of depth (in a few areas) and width (in a lot of topics). It is at the intersection of business and technology, of art and engineering, and of design and development.

There is literally no room for narrow specialists in a world where specializations either become obsolete or automated on a weekly basis.

If you have depth in a particular digital technology, that's nice. It means you have an 'I-shaped' skill profile. But unless you start gaining a good amount of knowledge in

a wide range of areas, stretching all the way from adjacent technologies, to user experience design, to DevOps culture and agile leadership, you are setting yourself up for obsolescence. This is what we call 'The T Factor' at TCS.

The T-factor is calculated based on current competencies (from formal learning programs) and signals, including hackathon participation, IP creation, and actual project experience. It is a measure of both the depth and width of your digital skills. The more specialized you are in a given topic, say data processing platforms, the longer the vertical length of the T. The horizontal bar of the T is expanded by continuously learning adjacent skills such as cloud technologies, visualization, DevOps. TCS' newer way of mobile learning, 'Fresco Play' uses learning journeys that are designed to help build both width and depth.

TCS' social platforms – Knome and Fresco – enable chat-ops, formal and informal learning. We abide by our belief that in a truly digital workplace, information should be free.

### The quantified self in the enterprise

Gary Wolf and Kevin Kelly from *Wired* magazine, drew the world's



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attention to 'the quantified self' or an understanding of a person built through data generated by them. Data like health parameters, behavioral triggers, and social interactions. Within the enterprise, employees create so much data about themselves - their competency gains, knowledge sharing, customer interactions, project outcomes, and their participation in various activities related to health and society. Enterprises should make available channels where the employees' data can be captured and used in a meaningful way. Filling a form a few days before an appraisal seems obsolete, when live data is available from so many sources to automatically capture employee performance.

**Play at work**

The Gen Y mindset is youthful and playful. Learning, training, problem-solving with code had better be more like play than work. Immersive experiences, gamified applications, and competitive problem-solving will catalyze original output and make for a

creative virtuous circle. For this to work, teams need to be connected through chat, voice, and video for impromptu discussions and online collaboration. Even big projects should get a cohesive closeness like 'two-pizza teams'. Large enterprises need to create start-up garage like environments to take risks, try new things, and keep abreast of merging technologies.

These observations and recommendations may seem antithetical to other developments in organizations. On the one hand, with regulations and professional hacking, enterprises are growing secure and rigid; on the other, with digitally-savvy, young recruits who want an invigorating workplace, they are forced to be nimble and entrepreneurial. This can lead to a 'two speed' organization - the large institution that adopts agile for legacy in an incremental way, and the zippy start-up that disrupts as it works.

Designing the modern workplace requires the intersection of design, technology, and behavioral science. At TCS,



the workplace has continually implemented new ideas, based on its research and innovation outputs. These include a social media platform with interactivity meters, conversational systems, 'nudging' of employee behavior, data analysis of digital footprints, redesigning digitized processes based on observing customer journeys, and design thinking (not formal 'requirement documents' that was the basis of building software applications in the traditional waterfall model).

Many large enterprises take pride in having a long history of leadership. And while that is great, I advise them to show how 'young' they can

be. To get the best out of digital, they have to rethink their paper-based processes, such as elaborate form-filling for every request, mandating formal documentation and sharing, classroom instructions, and appraisal by confession. I believe that young creative people who will make up an increasing part of the work force, are entrepreneurial, multi-faceted and *think* digital. They need to stay connected, work nimbly, experience immersive environments, and have fun at work. If large enterprises are not able to meet these requirements, then they will have to deal with troubling levels of attrition and the lost opportunity to infuse the workplace with fresh, creative energy.



## Krish Ashok

Head- Business Unit. Digital Workplace.

As the head of the Digital Workplace practice, Ashok helps customers imagine the future of work for their employees. He also leads Digital Workplace Reimagination initiative within TCS, designing, building and implementing social collaboration, HR apps and Microlearning platforms for 400,000 associates. His team works at the intersection of design, technology and behavioral science and helps conceptualize and implement modern, persuasive and immersive intranets, collaboration and learning experiences. Ashok is an Open Source enthusiast whose specializations are Digital Reimagination, Social Collaboration, Persuasive Design, Knowledge Ecosystems. He has a B.E. Degree in Electronics and Communication Engineering from Delhi University.



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