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ACCELERATED DIGITAL TRANSFORMATION AND THE POST-COVID REALITY

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The fourth industrial revolution may be underway, but most businesses are yet to properly leverage many of the innovations afforded by information and communications technologies (ICTs).

Business solutions and systems are typically designed and deployed using enterprise architectures across physical locations. Likewise, the digitisation of most end-to-end business processes is in various stages of completion and adoption. Organisational strategies such as coercion, forced adoption and the like have been used. These were the norms and traits prior to the COVID-19 Coronavirus pandemic. Now, it is the regime of remote work.

The concept of Place-to-Space was coined by Michael Vitale and Peter Weil who focused on e-business models as organisations migrated from traditional brick and mortar structures (place) to digital (space). The movement of a business from place-to-space involves different aspects such as technology architecture, the business processes and the people.

In this article, I will discuss some considerations on the state of our IT systems and the transition from place-to-space.

Pre-COVID Era

The first stanza of the Beatles song, 'Yesterday' reminds us of the role our workplaces and co-workers play in our lives. After only three days, some are already reminiscing Yesterday!

Yesterday was the Pre-COVID era where I will start this discussion.

Typically, businesses have focused on building and designing their internal enterprises to cater to employees working within the business network. Hence, they have deployed centralised architectures, equipping one main location with a data centre and high-end servers, high-speed communications networks and a variety of access devices. Efforts to maintain continuous business operations warranted hot backup (mirror) sites at alternative locations, most of which require some degree of manning.

Business processes are related activities working together to create something (output or outcome) of value to customers. In many of my LBS classes, I play the devil's advocate and pronounce "products and services as the by-product of processes" and further infer that "the process is the product".

From this viewpoint, business processes are critical to any business function and their digitalisation was encapsulated in the automation era (where

enterprise systems and other business applications were used to automate the majority of the core functions and activities). Yet, some other internal operational processes escaped the automation era. As such, organisations have bridged this gap using collaborative tools and workflow applications. However, these collaborative workflows are not the missing middle. First, we find that some organisations bridge this with traditional paper-based files. Second, the handoffs between these workflow applications and business applications are non-existent, i.e. manual.

The effective use of technology resulting from employee adoption is a cause for concern. While organisations have acquired and deployed various technology systems, the rewards of enhanced productivity are often masked with physical presence rather than outputs or outcomes.

The New Normal: COVID

Business activities have slowed and employers have announced that the lion share of their employees are working from home. There are some realities that confound this initiative. The first is that the Nigerian economy still relies on a high proportion of low skill (blue-collar) workers. The second is that not all work activities are digital and thus digital workers are not universal, especially in the public sector. This reality is somewhat daunting considering the term 'digital economy' was coined as far back as 1995; hence, the reality that some workers will earn and yet be unable to work.

On the other side of the spectrum, the productivity levels of very senior executives, predominantly digital immigrants, that are accustomed to a retinue of assistants will certainly decline. The quality of critical infrastructure like power is all the more relevant in this era. If employees are to work at home, how much grid power is available? Likewise, working remotely requires peer and team connectedness and this requires the variation of the new oil – data! Without quality access to broadband, data will replace transportation as the main employee cost. However, the throughput and quality vary from provider-to-provider and location-to-location. Furthermore, some business applications were designed to be processed from high-speed enterprise networks, not shared home connections.

The Emerging Reality: Post-COVID

While I cannot effectively predict the outcome of COVID-19, I can say things will not be entirely the same. However, it presents a clarion call for changes in our enterprise designs, the level of integration of our systems and business processes, and the nature of work and the workers.

Traditional enterprise architectures need to be redesigned, especially considering that business locations now extend to the homes for all personnel roles and functions. In the information systems (IS) discipline, Zachman's framework is an enterprise architecture design tool detailing IT's support of the business. The framework is an ontology that describes the IS enterprise across two dimensions – classification names and audience perspectives.

Going forward, to what extent should enterprises adopt centralised versus distributed architectures? Or hosted versus cloud systems? Should organisations employ public or private clouds or a hybrid? Or a mix of processes and systems that is accessible remotely? What network architectures and communication systems will effectively support the hardware systems and their distribution? What connection speeds are required to facilitate this work?

The focus on systems integration should prioritise our thinking about organisational business processes. Given the deployments of disparate business applications across the enterprise, how best can the handoffs between systems function. To what extent do we integrate the systems – data, software, applications – for seamless work?

Remote working has highlighted the digital divide between analog and digital roles. The reality for analog businesses and governments is that work is no longer a place, but an activity that can be conducted in space. However, that space requires repurposing the work tools and the work environment.

Conclusion

The million-dollar question is what aspects of work will revert to the pre-COVID era? Schools are able to deliver content digitally; however, are students able to learn? Workers are able to work remotely but is the work of good quality? These are questions we still need to address amidst the reality that digital is upon us and we need to embrace it with a sense of urgency.

The Government recently launched two technology strategies – the Nigerian National Broadband Plan 2020 – 2025 and the National Digital Economy and Policy Strategy 2020 – 2030. Their implementation is all the more critical. The new Broadband Plan aims to deliver a minimum of 256 Mbps download speeds in urban locations and 10Mbps in rural locations.

While the infrastructure is critical, the redesign of work activities across the organisation (bottom and top) and repurposing and design of enterprise technology to ensure access and support are mandatory. Finally, and in my

opinion, the most difficult – reskilling and retooling workers to become true knowledge workers.

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