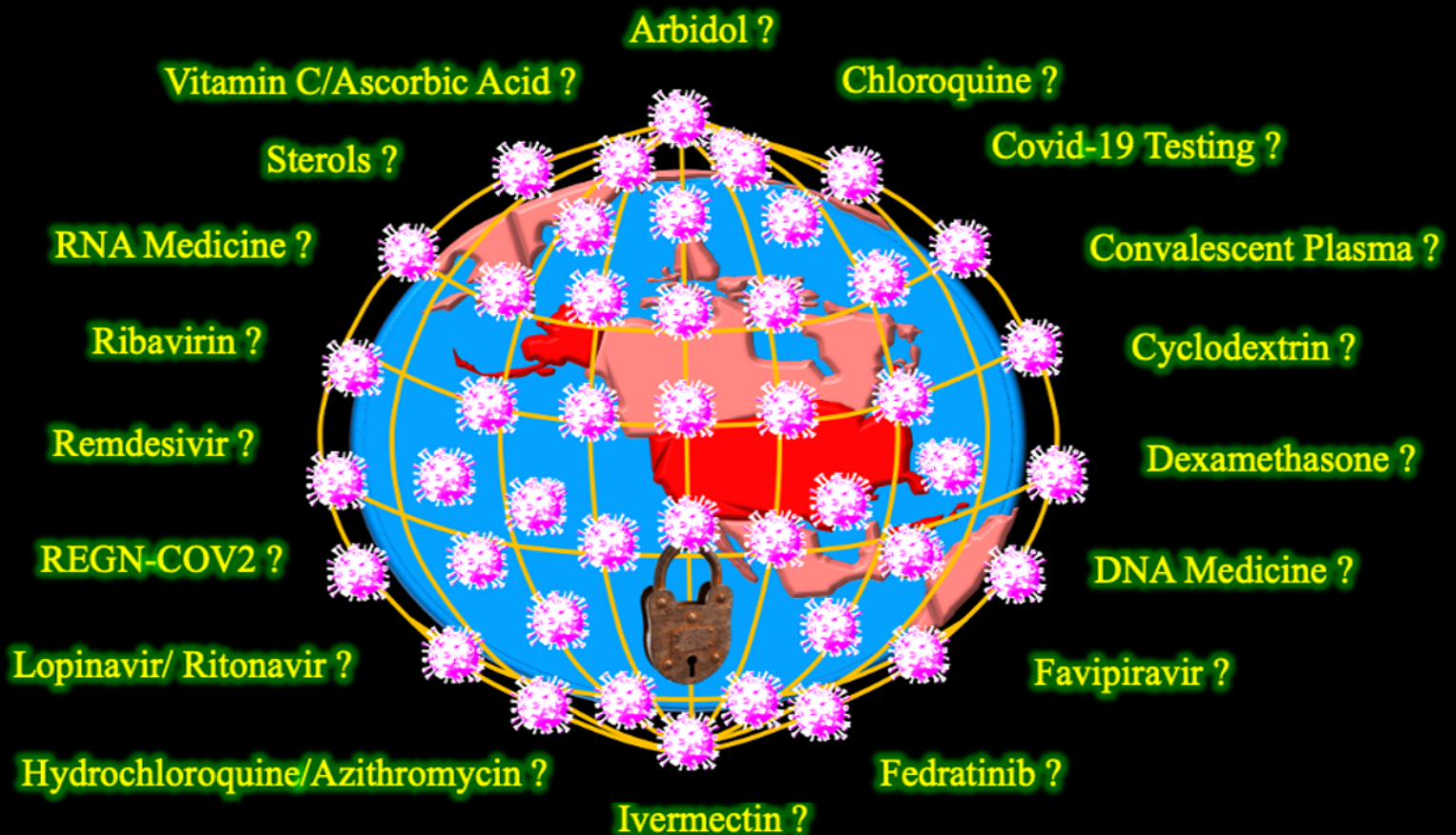# Science Documents®

Fear of coronavirus locks down the world
and resets activities on the earth

Impact of COVID-19 on Information Technology

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Two things have taken us by surprise during 2020. The spread of Covid-19 and the role of information technology (IT) in our lives. Covid-19 brought every business process & resource to a halt. But, IT redefined every business process, activated new resources behind it and kept the economy operating. We experienced how quickly humanity can come to a halt. And, we also experienced how resilient humanity could be in resolving the issues. And, IT was at the centerpiece in enabling the resilience for humanity. So, in this article, we are going to discuss some of the challenges IT faced during the Covid-19 pandemic and how it transformed itself to make the businesses succeed.

Information Technology (IT) had operated silently as a backbone for storing the data digitally and enabling the applications that consume it. The humans created a number of operations around commerce and enabled the economy. An initiative has always been to digitize the operations as much as possible. However, all of the digitization was catered towards recognizing the repeatable tasks and enabling them via compute intensive systems. And, as such, IT was focused on enabling these systems in a secure and appropriate manner.

With Covid-19, we all expected that since humans were not performing the business operations and interactions were shut down, the IT would be defunct or minimized, since the operations did not really need the apps to be running and available for them.
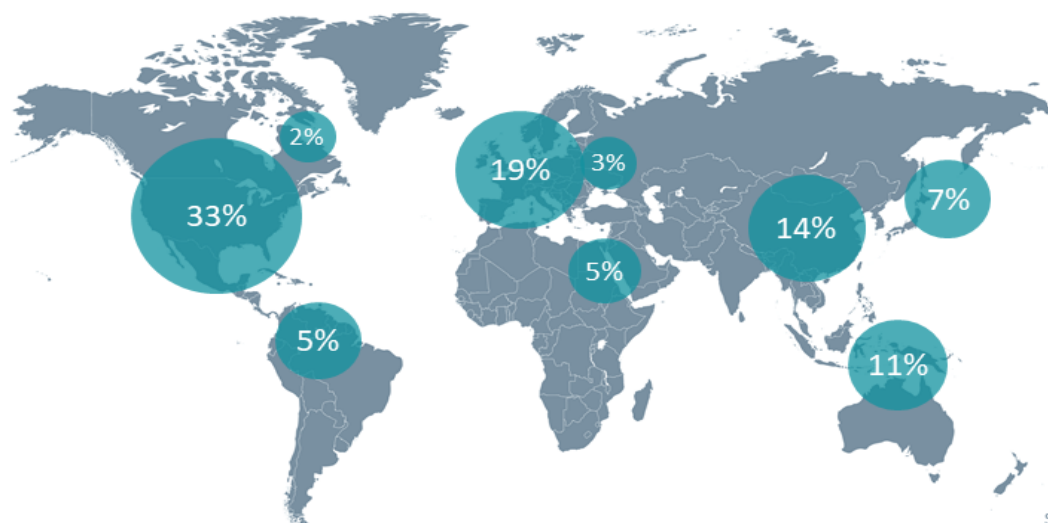
However, low and behold, the businesses started using digitized applications with the known gaps in the business processes, but remotely. The businesses were asking for gaps to be fixed as quickly as possible so that the operations can resume. The economic viability of the businesses was at stake and companies could not afford to let the businesses go down. And, for that they objectified the IT to springboard into action and solve the business gaps as quickly as possible.[1]

IT went into full gear. The technology professionals behind applications of business processes started reviewing the gaps with full urgency and initiated themselves to solve them. This forced the technology work to expand many folds and also attracted the

The Global Technology Industry: $5.0 Trillion

Estimated 2021 spending at constant currency | Encompasses hardware, software, services and telecommunications

2%
19% 3%
33% 7%
14%
5%
5%
11%

Source: IDC

need for many skilled professionals to focus on enhanced solutions. What started as a need to solve a single gap in the process, ended up with many new steps to be added to business operations to achieve it without human interaction.[2]
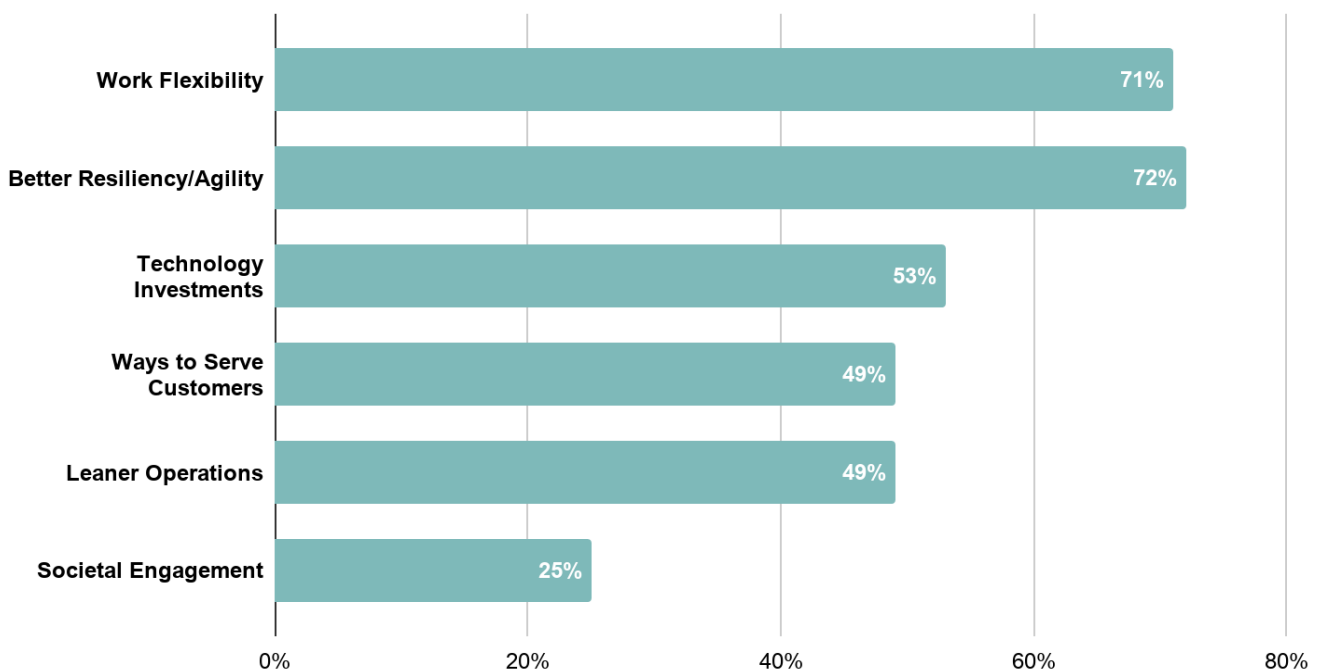
This new digitization of the business process was far more complex than the original human intensive process. It requires a full review of objectives to make it resilient to operate without flaws. Attempting to achieve this is not a small feat. However, technology professionals kept at it and achieved far greater results than expected. This has resulted in a boom of technology sector jobs. Technology professionals are needed in every single industry to fix the business process gaps. And, the current pool of professionals are not enough to build these digitized systems at warp speed. According to PwC, the organizations reformed themselves to provide various options for the technology workers to achieve digitization. Based on various sections of surveys at different times and demographics, we find the below.

Another very interesting phenomenon we witnessed is the technology transforming itself to become

highly digitized to support the intense reliance of humans on technology for daily health and living needs. During Covid-10, humans have to rely on the internet to order or buy food. Humans have to rely on technology for health services and needs.[3] Humans have to rely on video instead of just audio for communication with others. Humans replaced all of the physical interactions over to the digital world. And, IT enabled all of it. Even the common layers of management. governance, compliance etc. across all industries and sectors were transformed by IT. The world of governance changed. New controls were added to ensure the operations were running with right approvals and reviews. The world of compliance changed. New rules were added to ensure systems and operations meet the required acceptable policies. The world of security changed. New methods were added to audit all actions of operations and reported in a timely manner. And, the list goes on.

The global technology industry is a massive $ 5T industry. And, it is on pace with a continued growth of 5% each year. US is the largest share with 33% on IT spend. Co-incidentally, the Covid-19 is also infecting a huge number of populations across US,
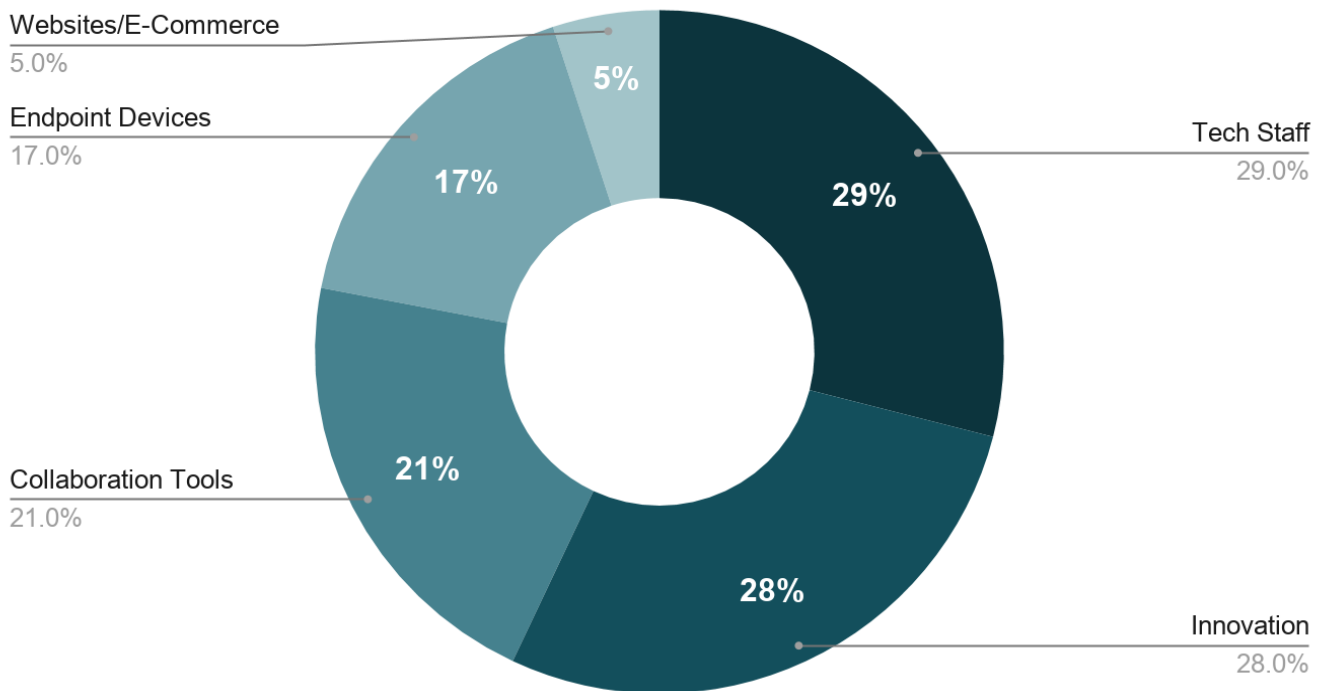
Options Offered to Tech Workers

Europe and Asia Pacific regions., with the highest infections in US region. With the above changes mentioned in the world of compliance, governance, security and relentless innovations in health services and natural resources, US is poised for the highest future growth for IT in the near term.

efficient with right collaboration tools. The below graph details the primary budget allocations.

Majority of the projected growth is a result of what we have learnt from Covid-19. The need for more innovation and redefining the processes to do business. IT is now rebuilding a society for the future.

Primary Budget Needs

Websites/E-Commerce
5.0%

Endpoint Devices
17.0%

Collaboration Tools
21.0%

Tech Staff
29.0%

Innovation
28.0%

5%
17%
21%
29%
28%

Many of the organizations already started planning for the future growth and built their budgets accordingly. Nearly 1/3rd of the budget is allocated for innovation. With almost equivalent percentage in hiring technology staff. A sizeable budget is also spent in ensuring that workers are productive and

With Covid-19, the impact on technology was so intense, that humans have now completely redefined the way they work and interact and achieve business goals. And, this impact is permanent. And that is going to have a lasting effect of increased growth in technology jobs and skills for many years and decades to come.

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