What's Next? How Enterprises Should Approach Recovery

Understanding Megatrends to Future-Proof your Enterprise in the Recovery from the COVID-19 Pandemic

COVID-19 has and will continue to fundamentally change the world. Some of the megatrends that were used as inputs to business strategies will accelerate, while others will slow. This paper aims to build an understanding of COVID-19's long-term impact on these megatrends and propose strategies that can be adopted to create value for businesses, their customers and their partners. By understanding this confluence, you can help your company emerge from fallout of COVID-19 with a strategy better equipped to future-proof your enterprise.

new ventures & technologies

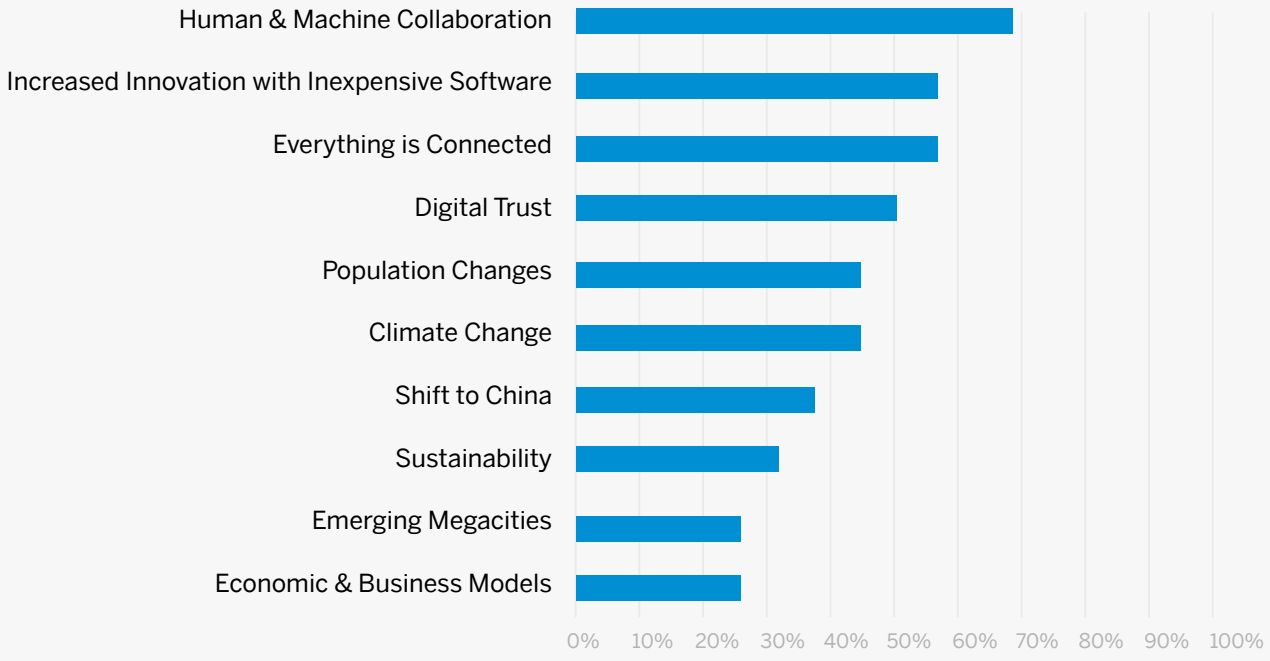
THE BEST RUN SAP

At SAP, our New Ventures and Technologies unit is charged with future-proofing SAP. A key element of achieving this mission involves understanding and addressing the trends that will impact our customers and the technologies they need to future-proof their own businesses.

By analyzing global megatrends that span business, technology, social and political areas, we identify and direct our attention to the most important forces that influence enterprises. These megatrends drive SAP's innovation and ensure we remain an important partner for the world's largest enterprises, governments and public institutions. We analyzed more than 16 different sets of megatrends put forth by a mix of global consultancies, systems integrators, think tanks, investors, and academics (see Appendix 1: Sources of Trends) prior to the global COVID-19 pandemic resulting in nearly 30 distinct trends. The chart below shows the top 10 trends.

The question we must now answer is: how does the pandemic influence the direction of these trends? Below is a description of these trends, along with our point of view on how they will progress in the new normal.

Percentage of thought leaders highlighting individual trends (top 10 of 30)



Digital Trust

Consumer digital trust will be increasingly important.

Complex personal information regulations and privacy tradeoffs are ever more present in both public and private decision-making as the "trust economy" emerges.

The impact of COVID-19:

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History has shown it is often hard to go back when technology is broadly introduced into society and many fear governments may not give up this new capability freely when this pandemic is over so it will be essential that technology corporations implement technologies in such a way that respect the privacy of those they serve. In the United States at least, people currently have greater trust in business than in government.

Shift to China

Geopolitical and economic center of gravity shifting to the China.

As China continues to emerge and assert itself as a global power both economically and politically, geopolitical tension is rising, and existing institutions risk being undermined or reshaped.

The impact of COVID-19

Although COVID-19 does not discriminate by, nor recognize national differences, this has not prevented it from being a highly political event that may in someways accelerate the role China plays in the world, albeit for slightly different reasons than were put forth before. Even as the virus is believed to have originated in China creating some hostility toward the government there and questioning of what they knew when, China has also been able to flatten their curve and has begun reopening its economy earlier than the rest of the world. McKinsey & Co. predicts China's economy would regain its pre-crisis trajectory by 2021, much earlier than rest of the world, if not adversely affected by developments in the rest of the world.

Furthermore, the United States' withdrawal from the World Health Organization, following its withdrawal from the Paris Accords, can be viewed as retreating from global institutions, opening up an opportunity for China to step in to play a larger role going forward.

Emerging Megacities

Rapid urbanization will create more megacities and a new consumer class.

Large shifts in population density will continue as people continue to migrate to cities requiring focused interventions to both ensure quality of living and limit inequality.

The impact of COVID-19:

Population density is a key variable in the number of new COVID-19 cases in a given area. This is why megacities such as New York in the United States have emerged as epicenters of the disease. While quality of care and number of health professionals per resident are generally higher in urban cities compared to rural towns, these health systems have been put to the test

by the rapid spread of COVID-19. Furthermore, in these cities where consumers have more readily adopted sharing and gig economy practices, unemployment numbers have spiked and calls for stimulus have been the greatest. Maps of the outbreak have also highlighted dramatic disparities in infection rates and care by socio-economic status in cities like San Francisco, accelerating the need to address inequality and provide support for the most vulnerable populations such as the homeless.

These impacts have brought into focus some drawbacks of urbanization and when paired with the new normal of remote work enabling traditional city-dwellers to work from outside the city center, rapid urbanization into the city centers is likely to decelerate. Not to say we will return to rural living across the developed world but to say that suburbs and smaller cities will see more rapid growth long-term than further migration into existing cities. These shifts will cause companies to adapt to new operational realities and accelerate process digitization as it has implications for supply chains, workforce planning, consumer preferences, and more.

Climate Change

Climate change and other externalities bring the contributions of businesses to social causes into light.

The need to coordinate a global action plan to address climate change will become a matter of necessity and not of choice, calling on governments and business leaders to make concrete commitments to reduce carbon-emissions and other practices with negative side effects.

The impact of COVID-19:

The shutting down of entire economies and industries has dramatically reduced carbon-emissions and pollution even as oil prices have crashed, giving environmentalists and advocates a view into what the climate could look like if the global community were to align and coordinate a global response to climate change. The move to remote work and limitations on travel have resulted in dramatic changes in the climates around many cities including Shanghai and Los Angeles. While this provides optimism for the future direction of this trend, there is certainly concern that as economies reopen and get back to work with record low oil prices, the tradeoffs between economic growth and limiting carbon emissions may shift in favor of economic growth as countries try to restart their economies and recover losses in GDP and productivity. Whereas climate change was a top priority and concern globally prior to COVID-19, it is likely to be prioritized in the near-term but then will make a resurgence after gains are made in the global economy.

Sustainability

Strain of supply chains and scarcity of resources will drive a focus on sustainability.

Both globalization and hyper-localization coexist as supply chain traceability and transparency are promoted to optimize supply chain components and enable efficient distribution and use of limited resources.

The impact of COVID-19:

The fragility of our global supply chain is one of the trends that appears to have felt the largest impact from COVID-19. Overnight it seems, supply chains collapsed, and goods were either unavailable or unable to be transported to where they needed to be, when they needed to be. Where the focus prior to COVID-19 was on efficiency of global supply chains, we now see a greater focus on hyperlocalization and distributed supply chains. Issues around scarcity of resources are being further exasperated by problems in the supply chain, for example food shortages are being experienced in parts of globe while food is being disposed of for lack of available buyers in other parts of the globe.

Population Changes

Global population continues to grow and age depressing long-term growth.

Demographic headwinds will result in the end of plentiful labor and a less productive workforce that must support and care for a growing aging population.

The impact of COVID-19:

While the older generation has been more at risk and unproportionally impacted by the COVID-19 crisis, the demographic headwinds will likely persist going forward, though at a slower pace. In the short-term, global productivity will be further impacted as young children are now out of school with parents managing working from home and childcare and with some adults having to care for their aging parents and grandparents who are at risk. As this trend persists, it will accelerate the need for other trends on this list to accelerate at a similar pace – particularly when it comes to AI-human collaboration and automation to drive efficiency and productivity more than to eliminate human capital costs. Also concerning is the possibility that if a vaccine does not emerge in the future or these pandemics become more frequent, we could see life expectancy start to reverse trend and decline in the future.

Human & Machine Collaboration

Technology and data will create more harmony between humans and machines.

For the better part of a century, humans have increasingly worked with computers. Advances in natural language processing, computer vision, augmented reality, and the like will allow humans to truly collaborate with machines.

The impact of COVID-19:

COVID-19 forced a dramatic change in how we interact with technology, from remote work, to delivery services, to entertainment. Many of these services rely heavily on technology such as machine learning and natural language processing – even if it is not immediately obvious to the end user. Increasing usage of these services will likely increase demand for tools that enable better collaboration between humans and machines. As such, this will remain an important trend, but significant acceleration or deceleration is unlikely.

Everything is Connected

More and more devices will be connected and this will change where data is processed and stored yet again.

Technology advances, such as 5G, will hasten the already rapid proliferation of connected devices. This will require further changes in how and where data is processed and stored. In combination with evolving security requirements, this will give rise to a complex combination of edge devices, public cloud and private clouds.

The impact of COVID-19:

With little direct impact from COVID-19, this trend may face investment headwinds until economic recovery begins. That said, COVID-19's impact on how people view digital trust (trend 5) will have a far greater impact on the longer-term trajectory.

Increased Innovation with Inexpensive Software

Speed of innovation will rapidly accelerate as the cost of software development plummets.

Development platforms, open source software, and a growing global community of developers have dramatically reduced cycle times for innovation. Enterprises that are not able to leverage these tools to bring innovation to market more quickly will fall behind.

The impact of COVID-19:

The economic fallout from a massive reduction in demand will force enterprises to do more with less in the short term. COVID-19 has been a catalyst for companies to attempt rapid adjustments in how they operate, with mixed results. Companies that have developed a competency to build fast and iterate are poised to capitalize on the opportunities that will be presented post-COVID-19.

This trend will accelerate, with the strongest companies building best practices for constant innovation that will eventually be accepted throughout a vast array of industries. This will also force an increase in the adoption rate of enabling technologies – particularly those with a commercial models that encourage experimentation with low up front costs.

New Economic & Business Models

Emergence of new economic and business models.

Businesses that have aggregated demand and leveraged the resultant data and customer relationships have fundamentally reshaped society over the past 20 years. Increasingly, businesses will look to adapt new business models to compete.

The impact of COVID-19:

While COVID-19 has the potential to significantly change the types of new business models that will define the next decade, it is undoubtable that businesses will need to be able to accommodate changes at an increasingly rapid rate. It's likely that retail has changed forever. In just one month, some segments have seen 100% growth in ecommerce. COVID-19 has supercharged the shift to online retail and the change in business model is likely permanent.

Across all industries we're seeing a shift in business models pre-pandemic and a similar stress test is likely. Further, as consumer spending recovers slowly, there will be an increased demand for cheaper products and services, increasing the likelihood of experimentation with disruptive entrants.

This will create significant opportunity for innovative companies looking to aggregate demand with loss-leading models. Lastly, pre COVID-19, the gig economy in the USA was expected to increase nine percentage points to 43% of the labor force. While this increase may be larger in 2020 as people return to work post-pandemic, the magnitude of the economic downturn could also result in longer term policy changes that offer gig workers additional protections – which would likely slow the shift to the gig economy.

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Based on these megatrends and the impact of COVID-19, the businesses that will thrive on the other side of this global pandemic will be those that adopt the following strategies:

Innovation is Embedded in Business Fundamentals

Prior to 2020, the need to embrace innovation was self-evident and COVID-19 will force businesses to double down on this effort, often with less capital availability. To emerge as leaders in their respective industries, enterprises must begin to lay the ground-work for embedding innovation capabilities throughout their businesses. As recovery strategies are developed, three main pillars must be considered to ensure innovation is embedded throughout organizations:

- **People:** the large-scale disruption of the employment market will result in significant job changing in the recovery from COVID-19. Hiring and retention strategies should identify talent with the skills and experience to develop continuous innovation capabilities. Embracing an increased proclivity for remote work without stifling collaboration will be a key to this.

- **Systems:** COVID-19 has exposed gaps for many enterprises in quickly responding to uncertainty in supply chains, customer engagement and the like. Learnings from this experience are key in creating a mechanism to quickly test and validate new ideas. Similarly, there is likely to be increased scrutiny on simulation and planning in supply chains – with companies who are able to pull in data and from a variety of sources take advantage of arbitrage opportunities. Flexible software, access to data and agile workflows are all key to ensuring systems are capable of sustaining increased innovation capabilities.

- **Business Models:** digital transformation has resulted in a proliferation of new business models. The cash flow disruption caused by COVID-19 also presents an opportunity to experiment with these business models such as aggregating demand through loss leading products. Nurturing the capability to experiment with new business models is an important component of competing in an increasingly innovative business environment.

The economic fallout is also likely to create an extremely dynamic, competitive environment in many industries. Competition will be more innovative. Retail is a good example of this concept. Early casualties shared common traits – they had failed to keep pace with the market and were unable to adapt as commerce moved online. We're likely to emerge from COVID-19 in a retail landscape dominated by companies who have already developed significant innovation capabilities – for example the ability to provide a personalized experience both in store and online, or adapt new technologies like augmented reality to provide a comparable experience to those in store.

Most importantly, embedding innovation throughout business is the best way to prepare for the most pervasive megatrend – an increase in human-AI collaboration. Innovative companies will be best positioned to develop products and services that leverage artificial intelligence, and help employees work more effectively with computers.

Supply Chains Evolve to Address Uncertainty

The resilience or otherwise of supply chains has been in sharp focus through the early stages of the COVID-19 pandemic. This has given businesses across the globe cause to closely inspect the journey from raw materials to customer value. While these efforts have focused on meeting short-term demand, future-proofing businesses requires viewing these challenges with an eye on pervasive secular trends. The businesses that emerge from COVID-19 in the strongest position to deal with the trends will have a strong understanding of the following:

- **Cross-border dependencies and how they are impacted by shifting economic power.**

  While the short-term implications of a globally distributed supply chain in the wake of global travel restrictions are well understood, businesses should take this opportunity to build mitigation plans for similar events. The rise of nationalism and shifting global economic power base will increase uncertainty in costs and availability of supply. Building flexible systems and diverse bases of supply will be essential to success over the coming decade.

- **Adaptability in everything – business models, planning and execution.**

  As mentioned above, businesses will increasingly look to innovation in product and business models to remain relevant to customers. Ensuring supply chains are ready to implement these changes is imperative. Rapid changes caused by COVID-19 were a good initial test for these models, and key learnings must be implemented on an ongoing basis.

- **Resource scarcity and readiness for the circular economy.**

  While the investments required to build truly sustainable products will likely be delayed as a result of limited capital pools as the economy recovers, leaders reviewing their supply chains should be making steps to better grasp the challenges providing transparency to customers on the provenance and sustainability of their products. This will incorporate things like resource scarcity.

Building Digital Trust Is Not Just a Business Imperative but Also a Business Opportunity

COVID-19 has accelerated the need for businesses and governments to develop programs and implement controls to permit widespread collection and sharing of information related to individuals across various networks of stakeholders. Apple and Google are investing in contract tracing APIs that will allow relevant stakeholders to track the spread of the corona virus while also promising their end consumer that they will not violate their privacy. Although this is the latest investment into privacy technologies by these large technology companies, it is not the first. Apple has already shown its willingness to stand up for privacy in past disagreements with governments over encryption on the iPhone. People are being forced to trust that the new technologies and systems they use are built in a way that respects privacy. The technological innovations, established standards and digital trust built up during our fight against this global pandemic can persist long after COVID-19 has been contained.

Businesses and governments alike have an unprecedented opportunity to build trust with their stakeholders through the COVID-19 recovery. Open dialogue

that aligns stakeholder needs with the data that is collected is essential to building and nurturing this trust. By doing so, they will gain a leadership position in implementing new business models built on secure data exchange, an expansion of business networks, and greater transparency and cooperation to tackle the world's largest problems.

Embrace the New Normal

COVID-19 has forced a change in approach to remote work and virtual engagement. This will quickly transform into a rethinking of how humans interact with technology and our approaches to solving global social and macroeconomic issues. It is clear businesses of all shapes and sizes have been impacted by COVID-19, however it has not been uniform. "We are in the same storm, but not in the same boat" has been a common refrain. While some businesses have adapted quickly to things like remote work, digital commerce, and technology-enabled services; others have buckled under the pressure.

For the companies that survive, leaders must adapt their strategies to the new normal. The businesses that make the choice to not simply revert back to their old ways – old ways that to their credit worked for a long time – but make the choice to instead embrace the new ways of doing business and the engagement models that thrived under the shelter-in-place ordinances across the globe will find themselves the winners in the long-run. They will not only win in their markets financially and economically by embracing this new reality; but socially and environmentally as well by continuing to carry forward the gains made during this temporary slowdown.

Companies that embrace the new normal, can discover and unlock new ways of addressing societal issues such as rapid urbanization, climate change, and sustainability that although they may not reappear as visible priorities in the near-term will undoubtedly make a comeback before the end of the decade.

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Authors

Ryan Van Dyk
Head of Entreprenuers-in-Residence
New Ventures and Technologies

Luke Nixon
Head of Business Strategy
New Ventures and Technologies

www.sap.com/contactsap

new ventures & technologies

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