

"Uberisation" of mining needed

By [Lorenzo Tencati](#)

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It is critical that mining houses embrace the technological revolution sweeping the world if they are to overcome the barrage of challenges they are facing, which include lower commodity prices, rising labour costs and increased regulatory pressures.

The storm in the mining sector has been brewing for some time. When commodity prices were booming, most mining houses put off plans to innovate and streamline, enjoying the blue sky opportunities and reaping the rewards of the market peak. Then, when the clouds gathered and prices plunged, innovation was again put on the back burner as keeping the lights on – let alone making a profit – became the number one priority.

The clouds are now growing increasingly darker as government regulations add pressure on mining houses to not only make profit but to ensure job sustainability in the sector and, at a greater level, drive transformation.

But it's not all doom and gloom, just yet. The current climate highlights that the more constraints the environment presents, the more mining houses need to optimise the remaining variables – and technology is the key to achieving this.



Disrupting the mining industry

We desperately need to see an "Uberisation" of the mining sector in South Africa. This involves a collective drive toward the combination of technological advancements and big data that made ride-sharing company, Uber, so successful and revolutionary.

While Uber and the mining sector may not be immediately comparable in our national conscious yet, there is nothing stopping the latter from taking inspiration from how the former disrupted business as usual in its industry.

Uber's software changed the way people across the world move, with the power to catch a taxi almost anywhere, at any time and at the touch of a screen. Most importantly, though, it is powered by big data. In just one example, the company's "surge pricing" approach uses predictive modelling of all drivers and customers at any time to adjust its price structures to meet supply and demand constraints.

In the same way, big data has also made it possible for Uber to efficiently match drivers and clients, reducing waiting time and increasing car utilisation, real-time information can empower decision makers at mines.

Technological revolution

The mining sector needs the same technological revolution and it needs it urgently. We've already seen advancements to mining equipment in the form of automated machines that test the levels of harmful gasses following a blast and in wearables that monitor the vital statistics of mine employees.

While these types of innovation are crucial, mines need to take the next step and monitor as many variables as possible in order to be able to accurately predict what is coming. For example, a system of monitors across a mine's fleet would provide enough data for predictive modelling that would indicate when each machine or vehicle would need maintenance, providing enough planning time, avoiding downtimes and ensuring continuous operations.

Luddite fallacy

However, this is not only about the improvement of mining processes. The technological revolution in mining is also about the improving the level of skills. Will there be resistance to technology in the mining sector due to the perception that it will result in job losses? Yes. For centuries there has been a fear that innovation equals job cuts, yet history has taught us time and time again that, in fact, this is not the case. The [Luddite fallacy](#), the economic observation that new technology does not destroy jobs but rather changes the nature of work for the better, comes to mind.

We have already seen how advanced sensors provide live information and rather than replacing operators, this technology is actually training and empowering them to make better decisions.

To overcome the mindset that technology will endanger jobs, there needs to be a shift in this perception by government, mining houses, labour and the public in general through the use of data and studies to show that technology can actually lead to more jobs, greater skills transfer and more importantly upskilling of people with portable skills.

It is technology, not subsidies, that will add value to the mining sector in South Africa. This industry needs to compete globally and subsidies are not a sustainable method to encourage healthy competition. An increase in productivity is what can make a real difference to boosting our activities in the global market, but we need the technology in order to be ready to do so.

The time for the revolution is now. What the mining sector needs is enlightened companies that recognise that technology and innovation are the best ways of surviving the stormy situation they are facing, which will only entrench their positions as market leaders when the commodity cycle turns.

ABOUT THE AUTHOR

Lorenzo Tencati is an executive director of Bryanston Resources and he heads the company's operations in Africa. The company is a management consulting boutique and investment house focused on emerging markets, specialising in natural resources, energy and industrial sectors with operations across global emerging markets. Lorenzo is a former member of Bain & Company's Natural Resources Practice & Private Equity Group with over 10 years' experience advising and investing across four continents. He is passionate about Africa where he has spent the last four years focusing on management consulting and investing in the resource productivity technology space. He now calls South Africa home.

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