


Transformation to the Digital Mine:

Unearthing value, safety and insights





Businesses across all sectors that leverage this age of disruption may capture value through process improvement, reduce risk and boost operations and business performance.

The mining sector is not different.

Digital transformation in mining has witnessed the introduction of new technologies such as plant control systems, GPS technologies, mobile broadband and automated haulage.

COOi Studios has carried out research to understand the various pain points across the mining value. Over and above solving business challenges, through technology we can support mines in the journey to reach zero harm, zero loss and zero waste. We look to further partner with mines through our developed emerging technology solutions that will cultivate safe, sustainable and profitable ways of working, connecting their most important assets, people, equipment and data to gain valuable Insights across their value chain in the mining industry, from pit to port.

We are living amid accelerated digital transformation, where business is no longer in a straight line.



Ensuring your initiatives are deployed, embraced and scaled for maximum ROI.

Masterplan Automation

Intelligent automation, like RPA (robotic process automation), natural language processing and virtual agents, can help you improve efficiency and mining productivity. But it doesn't stop there. Self-learning processes can help you empower employees and open new ways to innovate. Most AI and automation conversations focus on technology—that's the easy part. Not only will COOi help you identify opportunities for automation through interactive design thinking within the mine, but we work holistically across people, process and business functions to ensure your initiatives are deployed, embraced and scaled for maximum ROI.

Mine Plant of the Future powered by Big Data and Artificial Intelligence

Using Big Data and Artificial Intelligence, we are able to consolidate all the relevant information from CCTV, Dispatch, Fleet Management, Historians and other connected systems onsite to produce an easy to read and understand platform indicating planned versus actual KPIs, accessible on mobile devices. This will enable faster decision-making across the mine, while using existing MES and advanced analytics can make the process plant more efficient, and increase the functionality as part of a new digital strategy for growth and process improvement.





Learning in Immersive Environments enabled by Virtual and Augmented Reality

We develop immersive environments (i.e. conduct training) in a simulated environment using virtual and augmented realities to improve safety. Virtual reality allows us to use the power of computers to simulate real-world and imaginary environments and situations with a high degree of realism and interactivity. Experiential learning, gamification and just-in-time reinforcement – digital-enabled – are more effective in supporting competency development and measuring impact.

Drones and Artificial Intelligence for Inspection

Increase productivity by using drones for inspections and automating mobile and fixed assets throughout the site. This will help in collecting valuable data to be fed in the advanced analytics program and generate valuable insights that can be used to improve productivity while additionally using sensors with a combination of emerging technologies to achieve automation.



Digitally Connected Employees

Using the Internet of Things (IoT) and wearable technologies, supervisors can monitor safety, send notifications and have access to employees locations across the site in case of emergencies.

Effective Stakeholder Community Engagement using 3D printed objects

Increase productivity by using Communicate efficiently and effectively with real life 3D printing of water and/or waste management practices and other issues that need to be addressed with the community. Integrate a CRM platform to maintain stakeholder engagement efficiently and effectively.

Digital permits and work orders

We support organisations in transitioning from paper to digital. Complete the entire work order maintenance and operations process flow digitally. Foster a spirit of collaboration by creating a seamless experience with digital records of safety checklists and schematics to maximise efficiency. In addition to completing and visualizing all work permits, and checklists to ensure adherence to safety, health and operations standards. Keep records on the cloud, without risk of losing the information and/or submissions of incomplete documents.



COOi Studios is an Open Innovation Studio that helps large enterprises move from a strategy refresh, to rapidly solving a problem to a tested solution using design thinking methods and emerging technologies. Our studios can also come to you as a pop-up, creating memorable experiences for your employees at your internal meetings. Other services include strategic business advisory services, project management, process and customer journey mapping. We also offer Masterclass sessions to educate leaders of corporations about 4th industrial revolution technologies while providing immersive learning experiences with technologies such as Artificial Intelligence, Internet of Things, 3D printing, Virtual Reality and Augmented Reality. COOi has built the relevant technologies ready for implementation in the mining industry. AI & IoT park - which the same concept can be used for predictive maintenance for equipment onsite, AI & Drones - which can be used for plant and equipment, slimes dams and leaching ponds, and stockpiles and quarry inspections. Virtual Reality (VR) which can be used for Health, Safety and Quality Training.

We look forward to hearing from you and partnering with you in this exciting, innovative journey.

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