





## Let's Get Phygital

The rise of 'phygitalisation': where physical meets digital











What happens when digital disruption hits the supply chain? Since

teleportation is still a fantasy, expect to hear about 'phygitalisation' - the merging of physical and digital - which will ultimately change mobility for good.

"Mobility has always been a combination of physical issues and information issues," says Pierre-Olivier Desmurs, Managing Director, Mobility, Transport, Freight and Logistics at Accenture. "With the power of algorithms, we can imagine never-seen-before efficiency with phygitalisation."

Digitalisation of logistics began in the 1980s with the French online service Minitel, a precursor to the World Wide Web, which had a freight platform for exchanging cargo between logistics companies and for auctioning kilometres. Today, sensors allow visibility at every point along the cargo's journey, not just for location but also for conditions like temperature and humidity. The sensors can communicate that information wirelessly to the customer in real time. "Digital consumer behaviour is influencing how we service business-to-business (B2B) and business-to-business-to-consumer (B2B2C) markets. Looking ahead, logistics will be completely reshaped by phygitalisation as the industry adopts the use of new technologies such as Al, machine learning and powerful algorithms to meet the demands of customers who are increasingly seeking, real-time, transparent and added value services," says Emmanuel Arnaud, Executive Vice President, Sales and Marketing, for GEFCO, a leader in international logistics.

One example of B2C tactics spreading into B2B is dynamic pricing and tiers of services, similar to Uber where users can choose to hail a basic taxi service, share their ride with strangers heading in a similar direction, choose a larger-sized vehicle or upgrade to a luxury car. In logistics, that could mean regularly scheduled deliveries, those that piggyback on existing shipment if there's room – and thus receive rebates or a truck for exclusive use with expedited service. Already, Chronotruck, a recent GEFCO acquisition, is an online road freight marketplace that is merging the physical – trucks making deliveries – with the digital – an app that gives shippers access to instant price quotes and available trucks. For carriers, this means they can access additional business opportunities and optimise their trucks' capacities by picking up nearby cargo.

Phygitalisation is occurring up and down the supply chain and into the after-market of second-hand goods, creating new efficiencies, new customer experiences and new business models. Automakers are using artificial intelligence to forecast demand, which ripples out to the supply chain. How parts get from suppliers around the world to factories, and how cars get from factories to buyers, is being reconfigured thanks to phygitalisation.

With phygitalisation's greater efficiencies, automakers are allowing more granular customisation," says Timo Möller, Partner and Head of Future of Mobility at McKinsey.

Previously, identical cars moved from a factory to a staging point and then, when enough cars were assembled to fill a truck, to a dealer. Now, thousands of new, pre-owned and individually customised cars can potentially be delivered to each buyer's home, GEFCO's Arnaud says. "We need logistics not at the factory level, but at the individual customer level. The final customer is governing the supply chain. Only an efficient combination between a strong physical presence and the power of Al can face such a change of gear."

The Banks Report, which analyses the automotive retail industry, counts almost three dozen digital car companies, and new automotive e-commerce services are en route. For example, a trustworthy service provider will be able to appraise the car - the physical part - and enter it into a platform so buyers anywhere, not just in the same town, can see it - the digital part. GEFCO's Moveecar digital service platform can deliver one car or a fleet of them, with immediate inspection and repairs; all available 24/7. Under Moveecar's 'STAART' umbrella, (Storage, Transport, Appraisal, Administration, Repair, Travel Experience) the company is building a huge network of localised services that will cover a car's entire lifecycle no matter where the customer is.

For other consumers, the car is shrinking as a status symbol, which is leading to a range of sharing options. At one extreme are traditional buyers who assume all the maintenance responsibility. At the opposite extreme, e-hailing allows for single rides with no strings attached. Between those lie

leases and subscriptions that allow for changing models: SUV in winter; convertible in summer. The less that drivers are required to take care of the vehicles, the more there will be a need for services, from maintenance to cleaning to filling the tank. McKinsey's Möller predicts that a whole infrastructure will be needed to operate the vehicle.

Such infrastructure also includes storing vehicles when not in use and getting them to the next customer, as well as even doing last-minute customisation based on a customer's personal profile - putting a company logo on all the doors, perhaps. "In the future, services like maintenance, cleaning, body shop and repair will be associated," says GEFCO's Arnaud. "In the past, if I bought a car, I would keep it three to five years, minimum. In the future, I will probably rent it for three hours. Everything that happened every three years to prepare the car for its next owner will happen every three hours."

Players in the value chain used to consider data confidential information, a strategic advantage. "Now we have such an amount of available data all along the journey, it blows up these schemes. Accenture estimates that by 2030 \$170bn of profits will be unlocked for mobility products and services" Accenture's Desmurs concludes. "If the players don't team up and leverage technology to redesign services and processes, they won't have access to these new benefits."



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