The massive shift to digital ecosystems creates brand-new business opportunities in the logistics space.

The logistics industry is in the midst of a massive shift towards digital ecosystems. The digitisation of the industry’s material flows is creating an abundance of data flows. This, in turn, gives industry players greater visibility on business processes and enables the creation of new business models. Before long, the logistics industry will move towards platform-enabled ecosystems involving multiple stakeholders.

Three key factors are driving the digitisation of the logistics industry and its shift to ecosystems.

First, distributed ledger technologies like blockchain are improving data sharing and coordination among industry stakeholders. Banks, procurement firms and logistics firms are working together to set up trading consortia. Members of these consortia agree to use blockchain, thereby creating a new infrastructure for collaborating as well as managing and coordinating trade.

Second, an increase in sensor-generated data and the digitisation of physical assets such as delivery vehicles and warehouses is giving stakeholders clearer visibility on the business processes across the logistics life-cycle.

Finally, firms are shifting to the enterprise cloud and adopting APIs – interfaces that allow software applications to communicate with each other – to interact with external parties. As more companies move to the cloud, increased information exchange through APIs will lead to superior coordination among industry players.

These three forces have led to the rise of new business models as firms scramble to create the picks and shovels for the proverbial gold rush in this new era of digitised logistics ecosystems.

**New business opportunities**

Five new business opportunities stand out as data drive greater coordination in the industry.

1. Logistics companies require better monitoring and management services for their newly digitised mobile fleets and distributed warehouses. Fleet management capabilities not only help firms manage their existing fleets better, they also foster growth by reducing fleet management costs. For example, Amsted Rail’s fleet management service can predict arrival times using real-time data. Its wireless sensors supply status information (e.g. empty/loaded) and shipment temperature. The firm also uses predictive analytics to determine asset performance and predict maintenance needs.

2. Increasing fleet management’s intelligence and
autonomy, including through the use of AI, builds on
the first opportunity. Brain Corp is one such firm
able to transform existing vehicles into intelligent
self-driving robots via algorithms that model the
nervous system's sensory and motor capabilities.
Neurala, another company, creates software
components that make robots, drones and self-
driving vehicles more intelligent and autonomous.

3. With the shift to logistics ecosystems, last-mile
delivery needs to be automated and better
coordinated via digital innovations. Amazon's drone-
based last mile delivery and Uber’s self-driving cars
are some well-known examples. Logistics start-up
Dispatch has built an autonomous robot that
automates last-mile delivery by travelling at the
pace of pedestrians on sidewalks as it delivers
items. Similarly, Matternet is creating a fleet-
management and orchestration service for last-mile
delivery drones.

4. As connected fleets create more data, continuous
automated monitoring helps the ecosystem perform
more effectively. Decision makers can gain visibility
on the processes, while analytics helps regulators
and watchdogs ensure compliance. Producers of
monitoring-as-a-service not only optimise
operations, but also create new value by enabling
track-and-trace. Data collected across the supply
chain provides information about product origin and
carbon footprint. Weft is one example of a company
that tracks shipping containers and analyses data
flows issued by these containers. The company
trains on historical route data to predict potential
issues and alert stakeholders accordingly.

5. Data from the logistics value chain combined with
other data sources improves decision making,
leading to more efficient logistics and more effective
trade. ClearMetal enables logistics players to make
well-informed trade decisions by simulating the
movement of every ocean container, combining
data on journeys with other third-party data like
currency rates, commodity trends and weather.

As these examples demonstrate, we are about to see
immense value creation in logistics as data and
interoperability increase coordination across
stakeholders and help them perform as fluid
ecosystems. We are only beginning to scratch the
surface of a whole new set of emergent business
models in this new era of logistics.

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