AI and Global Trade

SUMMARY

As technology has matured, businesses in all aspects of transportation and logistics are working hard to develop applications for artificial intelligence that will boost their productivity and improve their operations.

BACKGROUND

Artificial Intelligence (AI) first appeared on the scene in support of blockchain technology. Since then, the potential applications have grown exponentially. It is important to clarify what AI means. Developers differentiate artificial intelligence into two categories: narrow AI, which covers translation services, chatbots, and autonomous vehicles, and general AI, which is "self-learning systems that can learn from experience with humanlike breadth and surpass human performance on all tasks." General AI raises broader existential concerns, such as how to align the goals of such a system with our own to prevent catastrophic outcomes. However, general AI remains a technology still to be developed in the future. In both categories, AI outperforms humans in handling repetitive tasks and processing complex algorithms.

To better understand the potential significance of narrow AI for trade, consider its core parts. Narrow AI is based on machine learning, which uses large amounts of data and powerful algorithms to develop increasingly robust predictions. The data used for machine learning can be either supervised—data with associated facts, such as labels—or unsupervised—raw data that requires the identification of patterns without prior prompting. Unsupervised learning includes reinforcement learning—where machine-learning algorithms actively choose and generate their own training data.

CURRENT STATUS

The international trade sector has quickly caught on to the artificial intelligence trend. With the data companies generate, there is ample opportunity to improve trade processes with artificial intelligence. Here are four ways international trade is beginning to benefit from the technology:

1. Enabling more proactive supply chains - These programs can provide various benefits to supply chains. They can anticipate supply chain disruptions and formulate plans to compensate. They

can support demand planning to regulate stock, preventing order shortages or overages. They can also calculate the fastest and cheapest shipping routes and foresee customer cancelations.

2. Enhancing time-saving compliance software - Companies should know who they are doing business with and watch for clients, suppliers, or business partners who violate trade restrictions. With those restrictions constantly evolving, compliance can pose a time-consuming challenge to international businesses.

3. Creating more intelligent contracts - Contracts take time and money to formulate, review, and comply with; they are often neglected unless a problem arises. AI can transform trade documents, often entangled in legalese, into valuable documents that can help businesses operate more easily within the contract's parameters and even reduce the risk of legal issues. Legal-based AI programs can catalog contracts, ensuring they are correctly implemented throughout the business.

4. Increasing access to trade financing - An estimated 80% of businesses in international trade take advantage of financing, but it can be hard to come by. Many banks are hesitant to lend to traders due to concerns about trade regulation compliance. While banks have traditionally required a legion of compliance officers to review loans for international businesses — the expense of which can add onto financing fees — AI can now shoulder the burden of compliance analysis.

IMPACT

AI is having an impact on the future development and management of global supply. Businesses can use it to improve predictions of consumer demand and augment communications between the factory, the freight forwarder, and the distributor to enhance the accuracy of just-in-time manufacturing and delivery. Robotics can increase productivity and efficiency in packing and inventory inspection. Tools like the Internet of Things (IoT) improve overall supply efficiency by allowing businesses to manage production and risk better. A national change in interest rates can impact global economies. AI adds to these impacts by having the ability to take interest data and predict outcomes of changes in international interest rates on a country-to-country level.

Specific applications in areas such as data analytics and translation services are already reducing trade barriers. Artificial intelligence is being hailed as the future of business, from how companies manage their supply chains and deal with legal issues to how companies anticipate and meet consumer demand.

RESOURCES:

- Global Trade is Powered by Artificial Intelligence (Forbes)
- 4 Ways Artificial Intelligence is Transforming Trade (Trade Ready)
- How Artificial Intelligence Will Impact International Trade (Techavy)
- The Impact of Artificial Intelligence on International Trade (WITA)
- How AI Will Remake the Rules of International Trade (Advisor Perspectives)
- Europe Reaches a Deal on the World's First Comprehensive AI Rules (NPR)