Opinion **UK schools**

How a box transformed the world

Marc Levinson APRIL 24, 2006

It may not be printed in red on your calendar, but April 26 is an important date in economic history. Fifty years ago, the Ideal-X, a war-surplus oil tanker with a steel frame welded above its deck, loaded 58 aluminium containers at a dock in Newark, New Jersey. Five days later, the ship steamed into Houston, Texas, where trucks took on the metal boxes and carried them to their destinations.

This was the beginning of the container revolution. By dramatically lowering freight costs, the container transformed economic geography. Some of the world's great ports – London and Liverpool, New York and San Francisco – saw their bustling waterfronts decay as the maritime industry decamped to new locations with room to handle containers and transport links to move them in and out. Manufacturers, no longer tied to the waterfront to reduce shipping costs, moved away from city centres, decimating traditional industrial districts. Eventually, production moved much farther afield, to places such as South Korea and China, which took advantage of cheap, reliable transportation to make goods that could not have been exported profitably before containerisation.

Containerisation is a remarkable achievement. Perhaps the most remarkable aspect of its history is that no one foresaw how the box would change everything it touched, from ships and ports to patterns of global trade. Containerisation is a monument to the most powerful law in economics, that of unanticipated consequences.

The man who gave containerisation its start was Malcom McLean, a self-made road-hauling magnate. McLean was by no means the container's "inventor"; apocryphal tales recount an "Aha!" moment when, waiting to unload his truck at the docks, he conceived of a better way, but the truth is that transporters on three continents had been using small containers for decades. None of these efforts had reduced the cost of moving freight because they treated the container as just another piece of cargo to be stowed inside a ship. McLean, with no maritime background, understood what the old salts did not: that the container would improve efficiency only as part of a system to move cargo seamlessly among ships, trucks and trains.

No one saw McLean's idea for detaching truck bodies from their wheels and carrying the bodies on special ships as revolutionary. At best, it was regarded as a minor innovation, "an expedient", as one leading naval architect opined in 1958. Perhaps, the experts thought, containers might capture a small share of America's declining coastal shipping business.

The path from the Ideal-X to modern container shipping was littered with mistakes. Some competitors to McLean's Sea-Land Service bought containers that proved too small to be commercially viable. Others rebuilt ships to carry containers alongside traditional loose freight, misunderstanding the need for fast port turnaround to make containerships pay. Dozens of once-proud names in ocean shipping vanished from the scene, the victims of their own missteps as they attempted to enter the container age.

McLean himself erred badly. In October 1968, he ordered the largest, fastest cargo ships ever built, figuring that size and speed would help Sea-Land capture economies of scale. He failed to reckon with the 1973 oil crisis, which made his fuel-guzzling vessels into money-losers. In 1982, now at the helm of a different company, United States Lines, McLean reversed course, buying a fleet of even larger vessels meant to sail around the world slowly, to economise on fuel. Customers turned out to be uninterested in round-the-world service – and plummeting oil prices gave competitors with faster, less fuel-efficient ships the advantage. United States Lines plunged into bankruptcy. Governments misplayed containerisation as well. Between 1955 and 1966, New York City spent well over $1bn in today's money to reconstruct piers and halt the flight of ship lines to the New Jersey ports at Newark and Elizabeth. By 1970, almost all of those new piers were abandoned, unsuitable for containers. On the opposite coast, San Diego authorities bought a high-priced container crane to serve ships that never came. Political considerations led Taiwan's central planners to build not just one container port but three, two of which saw little traffic for years.

Labour leaders feared the container, but even they were unprepared for the speed with which it destroyed waterfront jobs. Teddy Gleason, New York dock union president, predicted that containerisation would eliminate 30 per cent of his members' work; in reality, 75 per cent had vanished by 1976. When union leaders in London protested against containerisation by mounting a boycott of containerships in 1968, they assumed they would win because the ships would need to call at London. They failed to realise that for containerships, London was not an essential port of call. The ships used the new, non-union port at Felixstowe, 100 miles east, and the union's power withered.

US railroads fought containerisation even harder than the unions, turning away container shipments lest they destroy the business of carrying manufactured goods in boxcars. The railroads came to regret their obstinacy. Not until the 1990s did they begin to recoup the traffic they could have captured in the 1960s – traffic that today, approaching 12m carloads a year, is the railroads' most lucrative business.

Most startling of all, absolutely no one foresaw the way in which the container would stimulate long-distance trade in goods that had hardly been traded before. When Harvard economists finished a study of freight in the New York area in 1959, they concluded that containerisation would barely affect the region because its products were not "transport sensitive"; the possibility that cheap transport could encourage imports that would wipe out New York's vast apparel industry was not remotely considered. The prestigious consultants who opined in 1967 that five containerships could handle every shipment between Britain and America had no clue how much more trade would be stimulated by the very fact that the cost of trading dropped.

This history should be humbling to fans of modern management methods. Careful planning and thorough analysis, those business-school basics, may have their place, but they provide little guidance in the face of disruptive changes that alter an industry's very fundamentals. Flexibility is a virtue in such a situation. Haste can be a vice. If container shipping had developed as everyone anticipated half a century ago, many of yesterday's venerable shipping lines would still be ruling the waves. Instead, the companies that lead the container shipping industry today are ones that came late to the game and survived long enough to pick over the bones of the pioneers.

The writer is author of The Box: How the Shipping Container Made the World Smaller and the World Economy Bigger (Princeton University Press)