



1850–1890: Rewiring the Goods Network

The Network: Physical Distribution

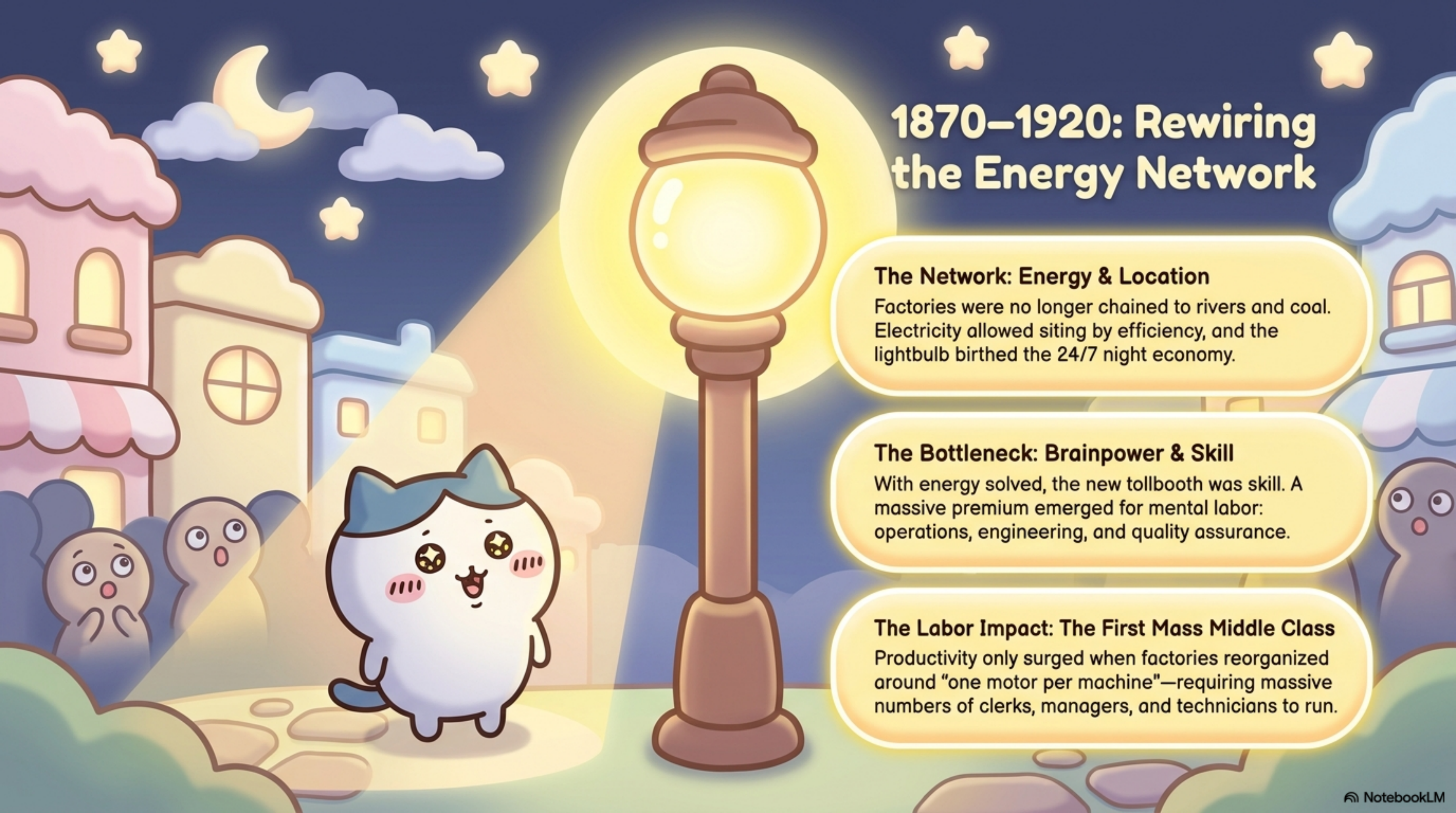
Before rail, markets were isolated by a 10km cart radius. Rail fused regions into a national market, drastically dropping ton-kilometer costs.

The Bottleneck: Junctions & Scale

Pricing power shifted to where rails crossed. Managing this heavy-asset, long-cycle capital birthed modern finance and investment banks.

The Labor Impact: Building the Middle

The immense physical scale required armies of ordinary people to build, operate, and manage, kicking off a broad redistribution of wealth.



1870–1920: Rewiring the Energy Network

The Network: Energy & Location

Factories were no longer chained to rivers and coal. Electricity allowed siting by efficiency, and the lightbulb birthed the 24/7 night economy.

The Bottleneck: Brainpower & Skill

With energy solved, the new tollbooth was skill. A massive premium emerged for mental labor: operations, engineering, and quality assurance.

The Labor Impact: The First Mass Middle Class

Productivity only surged when factories reorganized around “one motor per machine”—requiring massive numbers of clerks, managers, and technicians to run.

1990–Present: Rewiring the Information Network



The Network: Global Information

The space-time constraint vanished. Customer flow, goods flow, information flow, and capital fused in real-time global exchange.

The Bottleneck: Attention & Network Effects

The new tollbooth is the platform entry point. Whoever holds user attention monetizes the data, matches the goods, and takes a cut.

The Labor Impact: Light-Asset Winner-Take-All

Expanding at near-zero marginal cost, platforms monopolized wealth, yet their massive reach created a vast, flexible employment layer for creators, couriers, and merchants.



Present Day: The AI Infrastructure Shock

The Heavy-Asset Reality

Unlike the internet, AI is a heavy-asset, capital-intensive race. Every single inference burns compute, power, and physical depreciation.

The New Tollbooth: Compute & Energy

Data-center electricity demand will double to ~945 TWh by 2030. The wealth code flows directly to those providing the physical infrastructure.

The Capital Trap

It is a trillion-dollar capex railroad. A few cloud giants are paying the bill now, but who finally settles it—consumers, labor savings, or debt—remains unanswered.



Will AI build a new middle class?

The Dispersive Force

Labor isn't replaced whole; jobs are unbundled into tasks and repriced. Execution and generation depreciate; judgment, liability, and real-world perception appreciate.

The Historical Break

First 3 Eras (Rail, Power, Net):
Needed armies of ordinary people (engineers, clerks, creators) to operate.

The AI Era: Highly dispersive. Small teams do the work of thousands.

Result: Concentrate wealth, then broaden the middle.

Result: Extreme concentration, potentially skipping the "broaden-the-middle" phase entirely.

The Final Verdict

Technology sets the initial shock of distribution.
Institutions must set the correction.