The telegraph monopoly
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*Abstract: Three monopolies dominated the early history of the telegraph: Western Union, the Associated Press, and Marconi's Wireless Telegraph Company. Each built strong foundations of the US telecommunications system, but each stunted the system in various ways. The Associated Press held back competition in the newspaper business and the Marconi radio telegraph monopoly was a major factor in the Titanic disaster of 1912.*

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We tend to think of the telegraph as a one-to-one form of communication, allowing rapid transmission of messages between people in distant cities. But equally important was its use as basic infrastructure, linking newspapers and financial institutions together via the Associated Press wire service, starting in the 1840s.

Mark Twain joked about the AP in a 1906 talk. He said:

“There are only two forces that can carry light to all corners of the globe — Only two — The sun in the heavens and the Associated Press down here. I may seem to be flattering the sun, but I do not mean to do so." (Baltimore Sun, 1906).

The reason that the AP was the ONLY force that could carry light down here on earth was that it was a monopoly with an exclusive contract with another monopoly -- Western Union telegraph company. This bilateral monopoly operated in close cooperation and even shared headquarters offices in New York. The AP protected Western Union from disparagement in the nation’s media and Western Union kept AP telegraph rates much lower than any possible competition.

Histories of journalism and of technology tend to focus on AP’s high standard of reporting while omitting the issue of monopoly. However, in the late 19th and early 20th century, the AP – Western Union arrangement generated a storm of controversy. Between 1870 and 1910, Congress considered 96 bills and resolutions along with 48 committee reports about the Western Union / AP monopoly. The most frequently proposed remedy was to nationalize the telegraph under the post office, which was the policy adopted in Britain and Europe.

Critics of the AP–Western Union monopoly pointed to abuses that were typical of monopolies at the time: secret rates, refusal to deal, knock-off products, fake competitors, non-disparagement contracts and manipulation of information to drive competitors out of business.

The leader of the AP-Western Union nationalization movement was Gardiner Hubbard, a Boston attorney. Hubbard financed technical experiments that he hoped would undermine Western Union’s patents. Instead, the experiments led to the invention of the telephone by Alexander Graham Bell in 1876. Not coincidentally, Hubbard became the first president of the Bell Telephone Co. (and Bell’s father-in-law.)

So here we have a classic example of a technological circumvention to get around a deeply entrenched monopoly. The telephone was invented specifically to get around the telegraph monopoly. Within 30 years, however, Bell Telephone itself became a monopoly and then later combined with Western Union under AT&T.

After the Sherman Antitrust Act was passed in 1890, Western Union and Bell defended themselves with the theory that the telegraph and telephone were “natural” monopolies whether they were run by the government or a corporation. That theory was accepted by the Justice Dept. under the Kingsbury Commitment in 1913, with the tradeoff that AT&T would be more closely regulated by the government.

AP defended its monopoly in similar terms, claiming that they were also a natural monopoly serving everyone, and if anyone wanted a competing service, they would establish one. Since no one did, the AP service must be satisfactory.

 Actually there was a lot of criticism of the AP system. In 1911, for example, a young journalist named Will Irwin wrote a 14-part series about American newspapers for Collier’s Magazine. He thought the press “wonderfully able,” but it did not speak to his generation: “It is the mouthpiece of an older stock. It lags behind the thought of its times. .. speaking … with a dead voice, because the supreme power resides in men of that older generation.”

Irwin put the blame squarely on the Associated Press. No one could start a newspaper without telegraphic news services, and the AP members could block membership for new start-up newspapers. “Until something happens to break the . . . AP monopoly, the way to journalism will be barred . . . for the young man of brains, enterprise and purpose.”

Criticism of AP was especially fierce in 1914, when the socialist magazine, The Masses, published an article charging bias against the labor movement in the Appalachian coal fields. This was to be expected under the AP system, since it only accepted reports from member newspapers, and in West Virginia, the newspapers were owned by the coal companies. AP sued The Masses for libel, and magazines like The Atlantic said that if AP was a natural monopoly, it ought to at least admit new members on equal terms, as was the case with the Press Association of England. (Atlantic, 1914). AP later dropped the libel suit.

Eventually two competing wire services were established — EW Scripps' United Press in 1907 and William Randolph Hearst's International News Service in 1909, and the Justice Dept. forced Western Union to carry their news reports at equal rates. The wire services combined to form UPI in 1958, but they never amounted to a serious challenge to AP.

The AP monopoly stubbornly fought change for many decades, and AP membership tended to distinguish the leading newspaper in cities with competing dailies. In 1945 the Justice Dept. finally brought an antitrust case against AP, and the Supreme Court opinion said that the wire service’s structure was not protected by the First Amendment. “The fact that the publisher handles news, while others handle food, does not … afford the publisher a peculiar constitutional sanctuary in which he can with impunity violate laws regulating his business practices,” the court said in its decision.

The outcome was exactly what had been suggested in the Atlantic thirty years beforehand: Open membership on equal terms.

A more tragic story about entrenched telegraph systems and the refusal to change involves the Marconi wireless telegraph in the first decades of the 20th century.

Guglielmo Marconi of course introduced the spark telegraph in the mid-1890s. In 1900, after tests by the British Postal Service, all ships were required by Lloyds of London to have a radio telegraph. British Marconi was immensely profitable, but the technology was frozen at an early stage, and its radios could not be tuned. There was only one possible signal that could be sent or received with the Marconi sets in use at the time. It was not the modern system in use today.

The modern system was invented by Reginal Fessenden around 1904, and the idea was to embed signals inside a continuous radio wave. The signal would be carried via amplitude or frequency modulation ( AM and FM ). Fessenden’s system could carry many different signals, not just one. But he could not get the Marconi company to adopt his technology. And that proved fatal.

When the Titanic sailed in April of 1912, its radio system was said to be the most modern in the world, but actually that was not true. The Titanic used the Marconi spark wireless that could only hear or send one signal at a time.

Because of this, Titanic radio operators refused to listen to warnings about ice fields from nearby ships because they were transmitting personal messages from mid-Atlantic to Newfoundland. The Titanic radio operators told others to “get off” the air.

One ship, the Californian, was only five miles away and could have easily saved everyone on board the Titanic, but the radio operator was so insulted by the Titanic’s operators that he shut down his radio and went to bed an hour before the Titanic hit the iceberg. The crew of the Californian was unaware of the disaster until the next morning.

Two major inquiries were conducted in weeks after the disaster, one by a US Senate Committee and the other by the British Board of Trade.  Both focused on safety issues, the impact of the iceberg, the lack of lifeboats and other issues surrounding the physical disaster.

Yet the possibility that loss of life might have been prevented had radio been used correctly intrigued both commissions, and radio operators testified extensively at the hearings.  The fact that the Californian’s radio operator, Cyril Evans, had been told by Titanic radio operators to get off the air, and had done so, seemed to compound the tragedy.

An incredulous British Solicitor General asked Evans:  “Do I understand rightly then that a Marconi operator . . . can only clearly hear one thing at a time?”   Evans one word answer was: “Yes.” Evans was also asked by a US Senator: Can you take more than one message at a time?  The answer was: “No.”

The fact that the Marconi system had performed so poorly did raise some questions, and the US Senate inquiry expressed disappointment.  “Had the wireless operator of the Californian remained a few minutes longer at his post . . . that ship might have had the proud distinction of rescuing the lives of the passengers and crew of the Titanic.” The New York Times noted on May 2, 1912: “Sixteen hundred lives were lost that might have been saved if the wireless communication had been what it should have been.”

The American and British inquiries absolved the Marconi company. Yet it was still perfectly clear in the summer of 1912 that something had gone dreadfully wrong with the radio itself.  Within months, Congress passed the Radio Act of 1912 to stiffen the requirements for radio safety at sea.

The Titanic disaster illustrates the short term damage that monopolies can inflict, especially in the early cycles of technological adaptation when consequences of complex problems are difficult to foresee.  The long term impact of these three monopolies -- the AP, Western Union and Marconi – was to stunt the technological diversity of the American telecommunications infrastructure in its formative years.

American Marconi became Radio Corporation of America and was known for its technical conservatism that would monopolize the structure of commercial radio in the 1920s and 30s. Like the Associated Press, it also had to be broken up with antitrust litigation. (NBC v US, 1943).

The AP and Western Union monopolies decreased competition among American newspapers in the 19th and early 20th centuries, and this contributed to the monopolization of daily newspapers later in the 20th century. This monopoly structure, in turn, was one factor making the newspaper industry less resilient when challenged by new digital technologies in the first quarter of the 21st century.

Notes:

\_\_\_\_ “Mark Twain’s Plea,” *Baltimore Sun,* Sept 23, 1906, p. 8.

\_\_\_\_ “The Problem of the Associated Press,” *The Atlantic,* July 1914, p. 132-137.

\_\_\_\_  “To Call Bruce Ismay in Congress Inquiry,” *New York Times*, April 18 1912, p. 3.

\_\_\_\_  “New wireless rules America’s demand,”  New York Times, May 2, 1912, p. 1.

Aitken, Hugh. Syntony and Spark: The Origins of Radio. Princeton University Press, 1992.

Associated Press v. United States, 326 U.S. 1 (1945)

British Wreck Commissioner’s Inquiry, Day 8, line 9000. Titanic Inquiry Project.

 <http://www.titanicinquiry.org/BOTInq/BOT01.php> accessed July 2, 2023.

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National Broadcasting Co. v. United States. **319 U.S. 190** (1943).

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 Commerce,” Washington: US GPO, 1912. p. 735.