

The Future of Wireless

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AT the present state of the art, Wireless can be sub-divided into three classes:

1st. Wireless Telegraphy or Radiotelegraphy.

2nd. Wireless Telephony or Radiotelephony.

3rd. Wireless transmission of Power. The latter we may term as *Radiokinetics*.

As is well known, the first two are already in everyday use, all over the world. The third is as yet undeveloped, but already it looms large above the horizon.

Like all great things, Wireless has had its share of trials and tribulations. It takes time to develop an entirely new art. Moreover, Wireless received a black eye in its earliest infancy in this country. As will be recalled, a number of unscrupulous individuals unloaded millions of dollars of worthless stock on a credulous public, before the art had sufficiently advanced to make possible a successful commercial exploitation.

Practical commercial Wireless Telegraphy is not much older than ten years today. Commercial Radiotelephony has but made its appearance during the past one or two years, while Radiokinetics does not exist at all as yet.

But let us consider how the three classes of Wireless line up as far as their ultimate usefulness and commercial practicability are concerned. Let us look the problem square in the face and let us see what we shall find.

It is our opinion that a purely Wireless Telegraph Company can never reach such immense proportions as our wire telegraph companies. The reason is obvious. The wire telegraph companies are too well entrenched to be driven out of the field; it is quite certain that wireless telegraphy can no more hope to supersede wire telegraphy, than the telephone superseded the wire telegraph. Aside from this it seems hopeless for any one large central wireless plant to send out and

receive within a single hour, 8,366 separate messages, as is the case for instance with one of the New York offices of the Western Union Telegraph Company. Wireless will probably never lend itself to such exploitation. Its greatest use will always be long distance transmission of intelligence, either over land or water or both, and between land and ship or vice versa, or between ships. This is its true field and here the wire companies cannot compete. This naturally limits its possibilities. Thus, while the future of Wireless telegraphy does not seem too rosy, we need not feel discouraged. The young man who embarks in radiotelegraphy to-day, will use it only as a stepping stone towards something infinitely greater. This was the exact case of T. N. Vail, the present head of the American Telephone and Telegraph Co., popularly known as the Telephone Trust. Vail was originally a telegraph man when he was called in by Bell and his associates; had he not known all about telegraphy he probably would not be the president of the huge corporation to-day.¹

This brings us to Radiotelephony. To us there does not seem one field in the entire electrical industry that is destined to a greater and speedier development than this one. We venture to say that within the next fifteen years, Radiotelephony will become one of the greatest electrical industries, for it supplies one of the predominating wants of the times.

The radiotelephone can be used by anyone, just as easily as the wire phone. To operate the instrument it is only necessary to take down the receiver and talk. But three months ago it was demonstrated that it is eminently practical to catch the wireless voice—on the wing as it were—and connect it with an existing wire telephone line. Vice versa, President Vail talked into a wire telephone at New York, where his voice was transmitted to Arlington; here it “took wings” and was wafted without wires to Honolulu, some 4,000 miles distant. This accomplishment more than anything else has opened the public’s eyes.

We prophesy that in less than 15 years every automobile, whether pleasure or commercial, will carry its small radiophone outfit. Its occupants will thus be in constant touch with their homes or offices and vice versa, a convenience much needed to-day. Imagine the immense usefulness of such a device. Nor is this an idle dream. There is at least one company in existence to-day capable of filling an order to equip autos with radiophones having a 20 mile range. Nor will there be much confusion of voices becoming mixed up in transit; our tuning apparatus

¹Theodore Newton Vail (1845-1920) presents a good example of the translatability of technical expertise across numerous fields. Before becoming president of AT&T in 1885, he worked as a telegraph operator in New York and railway mail service clerk in Nebraska. Further, he came from a long line of machinists. Theodore was the cousin of Alfred Vail (1807-1859), an employee of Samuel Morse who was responsible for some of the most intricate aspects of the earliest telegraph receivers and transmitters. Alfred Vail received his technical education in his father Stephen’s machine shop, the Speedwell Iron Works. For more on the gradual nineteenth-century evolution of machine shop culture into telegraph manufacture and operation, the latter represented by trade publications like *The Telegrapher* and *The Operator*, see Paul Israel, *From Machine Shop to Industrial Laboratory: Telegraphy and the Changing Context of American Invention, 1830-1920*, (Baltimore: Johns Hopkins University Press, 1992), 24-86.

is becoming more accurate each day and it will be an easy matter to tune out unwanted voices. It will take considerable capital and a host of trained men to turn out enough radiophones to equip several million automobiles, aeroplanes, motorboats, yachts, and large vessels, but it will be done nevertheless and soon at that. Every farmer will have his Wireless Telephone to talk with his neighbors. Every train will have its radiophone enabling passengers to talk to their homes or offices. The radiophone will link moving humanity with the stationary one, the same as the wire telephone linked humanity together before. To us there is nowhere a brighter future than in the vast possibilities of the Radiophone.

As to Radiokinetics, this will surely follow the Radiotelephone in due time. Its future is probably even brighter than the latter. Already Tesla speaks of transmitting energy by the thousands of horsepower wirelessly. Who dares predict what this branch of wireless will bring during the next twenty years?²

²Despite the fame of Nikola Tesla's plans for the World Wireless System, which would enable the global distribution of electricity without wires, the technology never materialized. Ghislain Thibault uses the example of Tesla's inventions, which circulated largely in the form of visions or promises, to explore the question of how the history of technology can incorporate discourses that explain, support, precede, and sometimes overshadow material machines: "debates on the ambiguous notion of invention in science and technology in the fin-de-siècle expert community and popular science narratives created a space of undecidability for the materiality of invention, a space that Tesla's controversial discursive inventions occupied." Ghislain Thibault, "The Automatization of Nikola Tesla: Thinking Invention in the Late Nineteenth Century," *Configurations*, 21, no. 1, (2013): 27–52, doi:[10.1353/con.2013.0004](https://doi.org/10.1353/con.2013.0004).