

A Forecast That Was 80 Years Late, Or “Close, But No Cigar”

About 80 years ago, Leon Theremin was convinced he was on the verge of revolutionizing the musical instrument industry and the way music was made. While working in a Russian defense lab in the early 1920s, the physicist had discovered that proximity sensors could be used to control the frequencies of radio oscillators. Applying this knowledge, he developed what he called the “etherphone,” a groundbreaking electronic instrument that looked and sounded like nothing that came before it.

We take electricity for granted today, so it’s easy to forget that in the early 20th century it was a still a revolutionary technology that elicited awe and amazement. For the first time in all of recorded history, the general public had access to illumination at the flick of a switch, while appliances like washing machines, refrigerators, and fans reduced daily drudgery and enhanced comfort. And thanks to affordable radios from Radio Corporation of America, the general public could suddenly access music and entertainment in the comfort of their living rooms. Observing electricity’s transformative impact on daily life, Theremin concluded it could have a similarly transformative impact on the world of music.

In 1928, he demonstrated his new instrument to David Sarnoff, president of the RCA-Victor Corporation, and made a persuasive case for the coming age of electronic music. Sarnoff was convinced and promptly paid \$350,000 for manufacturing rights for Theremin’s new creation. (The equivalent of \$7.0 million in 2014 dollars). RCA radios and Victor Talking machines were sold in music stores at the time, so Sarnoff was confident that this strong distribution network would accelerate the inevitable success of the re-christened “Thereminvox.”

The official launch of the Thereminvox was greeted by breathless media coverage. Clara Rockmore, one of the few competent Theremin practitioners, enjoyed brief stardom as crowds packed concert halls to hear the revolutionary electronic instrument. However, the ambitious goal of a musical revolution failed to materialize. Even with RCA’s considerable marketing and distribution muscle, Theremin sales were miniscule. Once the novelty wore off, Theremins disappeared faster than the hula hoop and were relegated to creating sound effects for horror and sci-fi flicks. Perhaps the closest the instrument ever came to the mainstream was in 1966, when the Beach Boys used one for the intro of their memorable hit, “Good Vibrations.”

Leon Theremin and the brass at RCA obviously misjudged the demand for a monophonic musical instrument controlled by waving hands over a pair of antenna. However, they were on the mark about the potential of electricity as a musical tone source. In 1935, Laurens Hammond unveiled his now-famous Hammond Organ to immediate commercial success. And sub-

sequent decades saw a string of blockbuster electronic musical instruments: Casio’s CasioTone 201 (over a million units sold), Yamaha’s DX-7 (200,000 units sold), Roland’s D-50 (200,000 units sold) and the Korg M-1 (250,000 units sold) to name just a few. Unlike the Theremin, these top-selling electronic musical instruments owed their success to their capability to accurately reproduce the sound and feel of traditional instruments. Go to any m.i. store around the world, ask for a demonstration of a synth, and more often than not, the first words out of the salesman’s mouth will be “check out this piano sound.”

Given the current popularity of EDM, a catch-all phrase that encompasses numerous genres of electronic music, you could argue that Theremin’s prediction of an electronic music revolution wasn’t wrong, it was just seven or eight decades early. Thanks to inexpensive processing power and memory, and the development of what can best be described as “non-traditional” control devices, there is a current crop of mainstream musicians redefining the



tonal palette and how music is made.

This development prompts a few observations. The first is that musical instruments generally develop through evolution, not revolution. It took centuries of advancing technology and shifting musical tastes to transform the hammered dulcimer into today’s grand piano. Similarly, just because EDM is an important factor in today’s popular music, doesn’t mean it happened overnight. It’s the result of creative artists and engineers applying computer and software technology to musical ends over a multi-decade time-frame. Expect this evolution to continue in surprising ways in the years to come.

Secondly, wealth and prestige don’t convey infallibility. RCA-Victor was the 1920s equivalent of Apple or Google. It possessed cutting-edge technology that was in demand; it was feared for its potential monopoly power; and thanks to rich profits, it enjoyed a lofty stock price. Unfortunately, these enviable attributes didn’t help the legendary Sarnoff when it came to investing in musical instrument technology.

Finally, timing is everything. Theremin’s predictions were prescient; things just took a bit longer than he expected. Or, as the carnival barkers said in the day when a luckless contestant missed at an arcade game, “Close, but no cigar.”

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