hatever his mechanical genius, Thomas Alva Edison understood the power of publicity and communication technologies for getting his message across, and he used them in stunning new ways to en-

sure that he would corner needed

financial resources.

Many others had been working on electrical lighting since the middle of the century, and Edison did not seriously turn his attention to incandescent lighting until September 1878, after he had already established his invention factory at Menlo Park. But then he undertook a research and development project of great intensity and scope, requiring substantial resources from the beginning. He conceived the light bulb as the means to establish a comprehensive system of electrical power, an effort of extraordinary magnitude.

Aware of the social transformations already underway in the country and the further transformations electrical power would bring, Edison from the start enlisted the financial, industrial, and public support that such an undertaking required. He used all the personal connections he had made over CHARLES BAZERMAN

Publicity gave birth to Edison's system of light and central power. To fund his research, the inventor was able to parlay a burgeoning reputation into news splash—and capitalization of the Edison Electric Light Company.

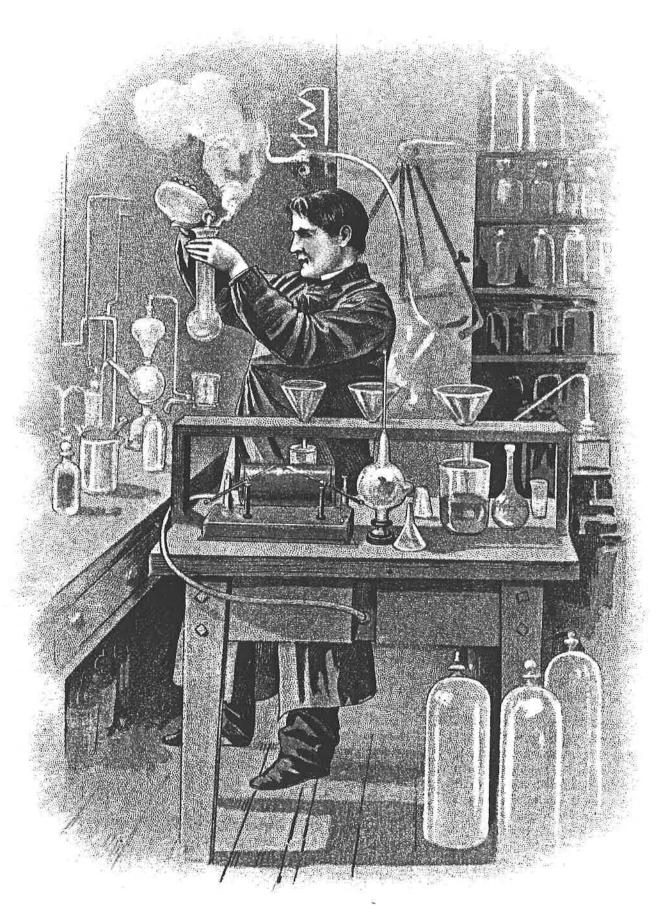
the years, all the public celebrity he had as a hero of the inventive age, and all the knowledge he had developed about how personal networks and journalistic fame worked. He brought the personal connection together with the public renown to clinch a deal that would provide the funds guaranteeing that he, of all the inventors working on the incandescent light, would be there first with a working technology that would lead us into the electrical age.

Networks of Information

From his youth, Edison learned how to get messages across in the new era. One oft-cited story, which he related when he spoke about his earliest adventures in capitalism, offers a good example of how well he understood the transformative power of the new technologies of the second half of the 19th century.

In 1861, the twelve-year-old Edison got his first job hawking newspapers and snacks on the Grand Trunk Railroad, which had just been extended

Charles Bazerman is professor of literature, communication, and culture at the Georgia Institute of Technology in Atlanta. He is currently working on a book, The Languages of Edison's Light.



THOMAS A. EDISON IN HIS LABORATORY.

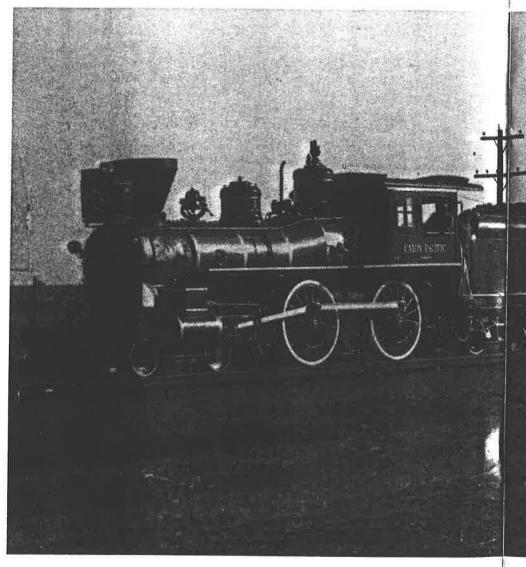
from Detroit to his hometown of Port Huron. The railroad and its stepchild the telegraph had given the news business a tremendous boost, allowing the instantaneous transmission of news reports across the country and the marketing of daily newspapers over an extended region. The railway newsboy was on the cutting edge of a new information age.

Edison quickly realized the power of fast-breaking headlines to sell newspapers to information-hungry consumers over a geographically dispersed

With the emergence of
the telephone
(acoustical telegraph),
Edison's inventive
ability became even more
valuable to financiers
who saw that the way to
wealth was through
control of technology.

market. Selling papers at each stop, as well as to the passengers, the young Edison noticed sales were directly related to the drama presented in the latest Civil War battlefield reports. He soon learned to gauge how many issues to stock by getting advance information about the day's headlines from a paper's type compositor.

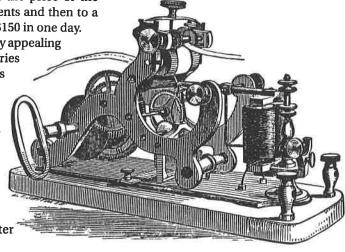
Upon hearing of the particularly gruesome first reports of 60,000 dead in the battle of Shiloh, Edison arranged credit with the owner of the *Detroit Free Press* and put in an order for 1,500

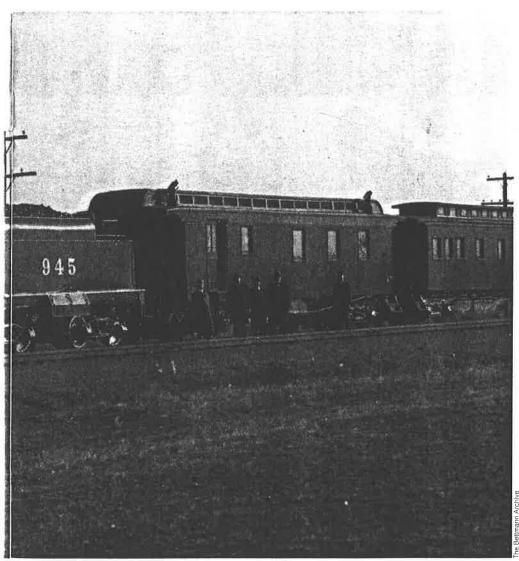


copies, instead of his usual 200. He then struck a deal with a telegrapher to wire news of the battle to be posted at each major stop on the train run. Increasing crowds gathered at each station to await the newspaper reports of the battle. Responding to the demand, the newsboy raised the price of the nickel paper to 10 cents and then to a quarter. He cleared \$150 in one day.

It's one of the many appealing luck-and-pluck stories from the inventor's childhood. It's also the kind of humaninterest tidbit a trained publicist of today would immediately highlight, and one which the intuitive publicist Edison shrewdly made known in later

Edison was steeped in communications and network systems. The idea for an electrical system and his use of media derive from experiences with the telegraph and railroad.





years. Nonetheless, the story shows that the transformative power of communications technology was not lost on him, for he claims that on that day he decided to become a telegrapher.

Networks of Influence

Working in the young telegraph industry, Edison learned about electricity, tinkering, and inventing, but he also learned about news, finances, stock markets, and corporate manipulation. And perhaps most important, he made the acquaintance of the era's power brokers. In the latter half of the century the railroads, and then the telegraph, created large industries, national markets, and a shared information network, and with those came a need for large capital markets. In fact, railroad stocks and bonds first fueled Wall Street's growth from a quiet collection of brokers in a coffee shop to a superheated world of manipulation and monopoly, dominated by figures such as Jay Gould and J.P. Morgan.

Pioneer companies in telegraphy and telephony also became actively traded in the markets, and control of essential patents became a crucial investment issue. As an independent inventor and equipment producer throughout the 1870s, Edison worked for all the competitors, including Western Union, Atlantic and Pacific Telegraph Company, and the Automatic Telegraph Company. In the complex of litigation and mergers he produced patents for all sides and came to know the financiers, businessmen, and lawyers who ran the companies. Moreover, he came to learn, through a series of contractual disputes with his various employers, the power of litigation and the power of control of patents.

He started out as an individual employee of the new communication companies, but in order to deal on an even footing with the industrial owners, in 1869 he opened his own firm in partnership with Franklin Pope, which then sold its services and products to the other communications companies.

The stock ticker, a direct extension of telegraphy, became a crucial enabling technology, as information became a valuable commodity for the booming financial markets. By 1870 Edison had become one of the key inventors for the Western Union subsidiary, the Gold & Stock Telegraph Company, which dominated the financial information industry until the rise of the Dow Jones empire at the end of the century.



Edison's Universal Stock Printer, an invention that caught the eye of Wall Street.

With the emergence of the telephone (acoustical telegraph), Edison's inventive ability became even more valuable to financiers who saw that the way to wealth was through control of technology. In 1876 Western Union, rather than purchase Alexander Bell's patents, contracted with Edison to develop a competing system. This contract provided one of the major projects for his new laboratory at



Growing fame: Edison played recordings for President Hayes and posed for Mathew Brady.

Menlo Park. Technological invention created big industry, and patents provided monopoly control. Edison could create the technology and provide the patents.

By 1877, when Edison's invention of the phonograph made him an international celebrity, he already knew and was known by the leaders of the financial industry, including Jay Gould, J.P. Morgan, the Vanderbilts, and Marshall Lefferts. He had not only received the sponsorship of and established regular working relationships with the new industries' major powers,

but also developed close relationships with several-most notably Grosvenor Lowrey, attorney for Western Union, who became Edison's attorney, advisor, and friend.

A Newspaper Celebrity

Just as he was getting the inside track to the financial markets, his fame as an inventor brought him into close relationship with the press. He already understood much about the news industry from his experience as a newsboy, where he made contacts at all levels of the paper. He had produced his own newspaper, which circulated among the railroad workers, and sold a few hundred copies each

week. Later, as a telegrapher, he regularly transmitted news stories. And then when he set up shop as an independent inventor, he used the press to publicize his services.

While his early inventions in telegraphy got him occasional notice in the regular press and to a somewhat greater extent the emerging technical press, the phonograph brought him true celebrity. Feature stories and interviews about him appeared in major newspapers and magazines throughout the country and the world.

Changes in the world of journalism over recent decades had created the opportunity for such stories. The development of steam rotary printing

SAMELY RUNO TERRESIO

The new journalism found in Edison good material, and they made a special kind of hero out of him. Edison had gotten voice, voice as a personality in the newspapers. Stories were no longer dry reports of the inventions but presentations of a man of personality, vision, anecdotes, and good humor. He was someone worth listening to, someone who could tell us about

his future, someone whose down-home judgment you could trust, someone who grabbed headlines and appeared as a prophet.

The laboratory became the exotic locale where the great man carried out his strange adventures into the unknown. Story after story begins with a journey on a train or first entrance to the laboratory, much as an anthropologist would describe entry into a strange culture. In one of the first interviews, the New

Edison's exotic wonderland, Menio Park, awed many reporters, who wrote on the fantastic things they saw there and on the inventor's amazing visions of the future.

York World of January 12, 1878, comments that "Menlo Park is a queer-looking place; rather, it would be queer looking if it were not in New Jersey." In these interviews, the strange habits, activities, and occurrences were then recounted as though Edison and his cohorts were an unusual tribe of adventurers. The exotic machinery, laboratory, and inventions, often with people looking on in wonder, provided novel and exciting illustrations; even more dramatic illustrations were provided by Edison himself, whom the stories often placed in his exotic working laboratory or accompanied by the symbols of genius and magic.

One such interview appeared in the *New York Sun* of February 22, 1878, under a headline "A Man of Thirty One Revolutionizing the Whole World." The report opens with the characteristic pilgrimage story of the journey to an obscure corner of New Jersey. Lightning rods and telegraph poles stand sentry as the reporter wanders up dark stairs to find "an immense laboratory, filled with electrical instruments. A thousand jars of chemicals were ranged against the walls. A circle of kerosene lamps was smoking on an empty black forge. The chimneys were the essence of blackness...." In this strange land the reporter finds "Professor Edison."

At the same time Edison appeared as a magical exotic, he was also portrayed as an interesting, homey, informal, loquacious man, only too willing to share his amusing anecdotes and great ideas with other Americans excited by the new technological

professor, and reminded me of a boy apprentice to an

iron molder."

At the heart of the mystery is a plain and open simple man—the extraordinary common man.

The reporter goes on to describe Edison as garrulous and playful. He demonstrates the

phonograph at first with gravely intoned versions of nursery rhymes, then with whistling, coughing, and sneezing. He soon demonstrates pranks created by recording one voice on top of another. As he describes uses of the instrument, he slips into the fantastic and comic—playing *mad dog* in reverse and scheming about giving the Statue of Liberty a voice that could broadcast advertisements over Manhattan.

future. He was portrayed as such a great man, doing such important and exotic things, that he did not have to take himself seriously, even as he seemed almost to dabble in the

occult. His accomplishments and even more his promises for

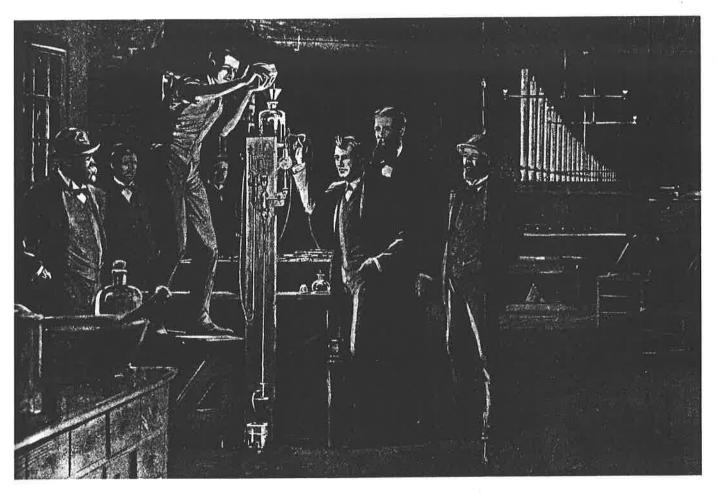
invited a kind of humor, a humor he participated in. That same

the future seemed so outrageous, yet so believable, that it

New York Sun interview that found Professor Edison at the

wizard's forge continued that he "looked like anything but a

Edison played the prophet. He was only too aware of how people were likely to use his invention to take his visions too seriously. Edison's comic hijinks indeed stood directly behind many of the comic stories published in *Punch*, *Puck*, *Frank Leslie's Weekly*, and the *New York Daily Graphic*. For example, just one month after this interview, the *Graphic* ran a full frontpage cartoon of "Awful Possibilities of the New Speaking Phonograph," that elaborates on Edison's previous jokes about his invention.



Edison publicized himself, attained research funding, and created products that lived up to the publicity...which ensured more publicity.

technology by 1860 allowed 25,000 impressions an hour to be made, up from just a few hundred copies at the beginning of the century. Cheap, mass-produced daily newspapers could serve growing urban populations. Telegraph and rail allowed the communication of distant news to fill the pages. And rail allowed the rapid distribution of the papers over economically expanding regions. Boosted by the news hunger generated by the Civil War, newspapers became substantial businesses, independent of the political parties that had previously provided support and readership. In 1830 there were only 65 daily newspapers, with a total combined circulation of perhaps 100,000. By 1870 the number of dailies mushNewspapers were
inventing new kinds of
writing, with the
New York press leading
the way. The papers
giving Edison the most
play were the most
advanced and innovative
in recreating journalism.

roomed to 387, with a total daily circulation of 3.5 million; and by 1900 there were more than 2,300 dailies with a circulation of 15 million. Early in the century the best selling paper sold perhaps 2,000 copies daily, but by the 1870s the top New York papers sold more than a 100,000 a day and by the turn of the century over half a million.

To attract and keep this widening readership, newspapers were inventing new kinds of writing, with the New York press leading the way. In fact the papers giving Edison the most play—New York's *Tribune, Sun, Herald,* and *Daily Graphic*—were the most advanced and innovative in recreating journalism. The *Tribune,* first under Horace Greeley and then Whitelaw Reid, helped pioneer the popular press. The *Sun,* under the editorship of Charles Dana, opened journalism up to colorful human-interest stories—

PUBLICITY IN THE 1990s

By Anna West

an the same combination of Edison's knacks for sales, finance, and invention, with a heavy dose of publicity, work to fund ideas today as they did in the late 1870s?

Yes, but with some differences. Some of the same approaches apply: a desire for promotion, a sense of timing, and a sense of your audience are all important. Other approaches are irrelevant. Today, for instance, we could not as easily work with a handful of pliant reporters and investors to accomplish our goals.

The real constant is substance—there must be something real to attract media and financial interests. The real difference is clutter. There is much more information clutter, news clutter, erroneous claims and people clutter, out of which the real substance must break through.

While Edison worked from an almost instinctual knowledge of publicity, he applied what we have since learned through public relations research and experience to be a successful approach. He built an interest in his ideas and persona before his technical achievements:

- He built relationships with financial leaders and reporters.
- He created stories reporters wanted to cover.
- He reinforced perceptions of his reputation through multiple means.

While these approaches still apply, there are some critical communications differences that are important to consider when we compare public relations approaches during Edisons time to today's.

Today's media is generally more skeptical and expects news or substance. With our information overload today, reporters are more critical and selective of potential stories. You must have a clear idea of the news value for a specific reporter's audience.

With many more people and increased communications clutter, targeting the right audience is critical. Market segmentation is a necessity. You must know much more specifically whom you are trying to reach and how to reach them. No longer are a few reporters covering the story adequate. Instead, success requires conscientious planning that includes not only

general media coverage, but also specific, personal contact, endorsements by credible experts, and other activities. These communications, combined and focused on a specific market segment, might persuade someone to act.

Indeed, because of today's clutter, publicity alone is not likely to be enough. Here are some communications steps that can make new ideas successful in the 1990s:

- Define clear objectives. Too often, people assume they need media coverage without considering the objectives and, therefore, the purpose, message, and communications means that would be most effective. The clearer you are about the objectives, the more focused and successful the campaign.
- Conduct market research. You must define and understand your audience and how you fare in a competitive context. Our clutter suggests that we need to understand carefully whom we are trying to reach, what their interests and preferences are, and what their perceptions are of other, competing ideas. Only with this knowledge can you develop an effective campaign.
- Develop effective messages. Often thought to be a very simple process, this is one of the keys for success. Well-crafted messages that appeal to target audiences demonstrating the benefits in terms meaningful to them can help establish the desired positioning and reputation.
- Determine communications vehicles. Because targeting is so important, you need to evaluate the full array of communications options and determine several ways to convey ideas. Media coverage alone will not suffice. You have to consider such avenues as direct mail, advertising, and special promotions.
- Implement coordinated communications programs. The devil is often in the implementation details.
- Evaluate results and adjust plans. Learn from past experiences, pause to assess what went well, what was persuasive and credible, and revise plans accordingly.

Edison is certainly unique in our history, a person for whom we might say no rules applied. Perhaps it was pure luck and personality that led to his success. Maybe it was just hard work. But in any case the elements of substance, relationships, and reinforcement applied then are applicable now to address the new challenges of cutting through the clutter and targeting communications.

Anna West is a parmer with Kearns & West, a public relations firm in San Francisco.

the only rules Dana imposed were that writing be lively and interesting. The *Graphic*, edited by David Crowley, devoted almost half its pages to illustrations and specialized in high-interest, dramatized stories, often written in a breezy style, seeking out subjects that lent themselves to visual drama and emotional appeal. The *Herald*, lead by James Gordon Bennet, Senior then Junior, developed exotic, adventurous stories that often stretched over many months, taking the readers to unusual places and people. These adventures

were at times in fact directly sponsored by the newspaper to produce circulation-building stories, such as the Stanley expedition to find Livingston, stretching over two years in the early 1870s.

At the end of 1877 Edison's work on the phonograph became known publicly, first through a series of articles in Scientific American and then more widely through articles and demonstrations that winter and spring. Scrapbooks in the Edison Papers contain clippings of more than 70 stories about

Edison and his phonograph from American newspapers between January and April of 1878. Early descriptions of Edison's inventions in January turned into interviews and biographical sketches that appeared throughout the spring, beginning in February with a six-page character study in *The Phrenological Journal*.

The articles became more laudatory, so that by April 1878 he was regularly described in supernatural terms. In the first two weeks of that month, articles appeared under the headlines "Edison

the Magician" (Cincinnati Commercial), "The Wizard of Menlo Park" (New York Daily Graphic), and "A Wonderful Genius" (Boston Herald). On April 1, the Daily Graphic published a long April Fool's story with the headline "Edison Invents a Machine That Will Feed the Human Race/Manufacturing Biscuit, Meat, Vegetables, and Wine out of Air, Water, and Common Earth." The following day they published a slightly less hagiographical interview under the title, "The Papa of the Phonograph." The same month more measured but equally laudatory accounts

He was the perfect media star of this era of American progress: an uncommon common man, informal and democratic, yet partaking of magical genius, so near to home in New Jersey, but so far into the new age.

of Edison and his inventions appeared in Popular Science Monthly and Scribner's Monthly. He and his phonograph had so entered the popular mythology that on April 20 the New York Weekly published a short story called "The Phonograph as Detective," in which a deceived wife discovers her husband's infidelities through an inadvertent recording.

While these news stories generally treated Edison with great awe, reports of interviews all indicate that Edison was down-to-earth, congenial, expansive, and even light-hearted with the interviewers. He discussed grand possibilities for his inventions in music and business and education; he played tricks by making comic recordings and juxtaposing incongruous pairs of recordings; he mused about fishing and told anecdotes; he provided biographical details that confirmed his life as an

Horatio Alger achieve-

ment; and he endlessly and patiently demonstrated his machines. He invited the publicity, doing everything he could to provide good stories for the reporters. While the reporters sought him out, he never seemed to turn any away. (See the sidebar, "A New Kind of Hero.")

He was the perfect media star of this era of American progress: an uncommon common man, informal and democratic, yet partaking of magical genius, so near to home in New Jersey but so far into the new age. This exotic hero was exactly the person representing the hopes of a country moving into a technological corporate future, led by industrial inventors, with Edison as the foremost exemplar. And he played the part well, endlessly inviting them into the laboratory, never turning the uninvited away. He fostered the publicity, seeming to know very well what he was doing: his coworkers later told stories of how he would fall into poses as journalists came into the room.

Publicity and Finances

Within a few months Edison had established a celebrity far beyond the other inventors of the age. In May and June of 1878 he became the object of new stories and interviews concerning his new light-measuring device, the tasimeter, which was to be used on an expedition to Pike's Peak to observe a solar eclipse. Stories of this expedition kept him in the public eye throughout

the summer, under such headlines as "Edison Whips Old Sol" (which expanded the comic apocrypha of his genius by having him invent a device to overcome perspiration). The trip also provided a personal escape, allowing him to develop new thoughts and projects in the company of scien-

> tists, including his friend George Barker, a professor of physics at the University of Pennsylvania, who urged Edison to work

on incandescent light. Upon seeing the enormous water-power available for industrial development, Edison realized that electrical power would be the way to transport this power to where it was needed. And he focused on incandescent lighting as the initial project on the success of which the infrastructure for an electrical power industry could be created.

In order to beat to market the many competitors who had been working on both arc and incandescent lighting, Edison needed to mount a major effort-and needed major funding. Arc lighting had reached a workable technology and was being installed on the streets and public buildings of a number of cities. Moreover, incandescent lighting, once the problem of the filament burning out had been solved, still needed to go against the expanding and highly profitable gaslight industry.

To get that funding he used the opportunity of the series of interviews granted to him on returning East from the solar-eclipse expedition. Within two days of his return to New Jersey, the New York Tribune, Herald, Graphic, Sun, and World all ran interviews, in which Edison told of his western adventures and his plans for new projects. A few days later, when he traveled to the laboratory of a fellow inventor to examine an electrical generator, he brought along with him a reporter from the Sun, who reported how excited Edison was.

PR FOR ELECTRICS

By Gloria Quinn

As in his day, a good product alone is unlikely to succeed in the market without publicity. If Edison had gone directly to the Wall Street financiers, the newspaper reporters, and the public and simply announced his vision of an electric-utility system and all it would entail, he wouldn't have gotten very far. When it comes to the mass imagination, you can't stimulate it with just an abstract idea, no matter how good.

People respond to concepts that affect their daily lives; reporters try to find something that will have immediate interest to the greatest number of readers; and financiers look for (among other things) a concept's popularity with buyers and investors.

So, instead of the rather unwieldy and imposing idea of an interconnected electric generation and distribution system, Edison used the simpler incandescent light bulb to spark imagination and develop acceptance of the system.

In today's electric utility industry, we're in a somewhat similar situation. We may understand that replacing direct energy use with electricity results in greater productivity, improved energy efficiency, and a healthier environment. "But going to the public with the idea that using more electricity is good," says Mary Kenkel, director of media relations with Edison Electric Institute (EEI), "well, at best, it seems illogical. At worst, self-serving."

Furthermore, it can be a difficult concept to grasp. Many electrotechnologies promoted by electric utilities—infrared paint-drying and medical-waste pyrolysis, for example—have excellent commercial and industrial applications but are not technologies about which most people are going to get excited.

So what do you do to illustrate that using more electricity, instead of other fuels, can be a wise thing to do?

Spreading the Electrotechnology Word

In the summer of 1992, EEI and its member companies announced a cooperative research agreement with the Environmental Protection Agency (EPA) to measure the airquality benefits of electric lawn mowers. The member utilities offered free cordless models to selected customers.

"We used the project not to sell lawn mowers and not to sell electricity," says Kenkel. "We wanted to sell the idea of electricity as an environmentally benign power source." And 18 million households have lawn mowers. The mower, like the bulb, is a technology to which most people can relate. It's a hook that Edison would have appreciated.

But broadcasting the message to the public took a great deal more strategic planning than the few reporter contacts Edison would have made.

"Here in Washington," says Kenkel, "a story is not a story unless a Congressman or Administration official is involved. We wanted a press conference to announce the agreement but had to reschedule it several times because we considered EPA Administrator William Reilly's participation to be critical."

Lawn mowers need lawns, so the press conference had to be held outdoors. "The potential problems were bad weather and the nuisance of getting permits to use the lawn outside EEI's offices, right on Pennsylvania Avenue," says Kenkel. "But we also knew that we wanted to have a noisy, smelly, gasoline-powered mower for contrast."

Also, à la Edison, they wanted to give reporters the opportunity to play with the mower: First-hand experience of the outof-the-ordinary is a great enticement to a writer, after all.

"Most important," says Kenkel, "we knew that having Bill Reilly use the lawn mower would provide great footage for television." And in fact, CBS dubbed the event "one of the most unusual photo-ops" staged in Washington.

Ultimately, the press conference generated stories in a number of newspapers, including the *Chicago Tribune*, *Houston Post, Miami Herald, New York Times, St. Louis Post Dispatch, and San Francisco Chronicle*. It also played on the CBS "Evening News," as well as CBS Radio and NBC/Mutual Radio News.

And so, the public knows more about electrotechnologies; the reporters got a good story (and, one hopes, look forward to more); policymakers learn about environmental benefits; electric-equipment manufacturers see new buyers; and electric utilities, with their continuing efforts in promoting the lawn mower and other electrotechnologies, forward the message of electricity use and it advantage over other fuels.

And all from the image of the nation's head environmentalist pushing the cordless electric lawn mower. One can imagine Edison coming up with the image himself.

Gloria Quinn is a media relations representative for Edison Electric Institute.

Six days later, Edison announced to the *Sun*'s reporter that he had solved the problem of incandescent light. This story produced an extensive outpouring of mail and other contacts, and almost immediately led to a set of meetings between Edison and major New York financiers, including representatives of the Vanderbilt, Western Union, Morgan Bank, and Gold & Stock Company financial empires. The deal was brokered by Grosvenor Lowrey,

Edison's attorney, whom he had met through negotiations with Western Union. Within a month of Edison's publicized announcement a deal was struck, capitalizing the Edison Electric Light Company and providing \$50,000 for research.

There would be many more newspaper stories about Edison and his light, as the research continued, the working system was demonstrated, and the light was installed in city after city around the world. All these stories, however, were built upon this remarkable publicity coup of the early days—taking advantage of Edison's celebrity as inventor of the phonograph, but feeding the press the necessary stories to make nuture the image of Edison as the hero of the new age. Once established as that hero, he could gather the resources he needed to make that new age real through electrical power.

He was a true self-made man. >