

# ILTA: A True Story of Innovation, a Movie Star, and a Secret Weapon

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**T**he pressure to do more with less has never been greater. Indeed, the current economic climate has touched every corner of the legal market in ways not seen in at least 30 years. Whether we're running an organization on a shoestring budget or pounding the pavement to find a new job, we are all being stretched to our creative limits.

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Fortunately, in times like these, ILTA stands as a bright, shining light in an otherwise dark and stormy night. At the risk of sounding sentimental, please indulge me as I share some thoughts regarding the value of this organization.

## AN “I” FOR INNOVATION

When thinking about ILTA, plenty of ideas, concepts and buzzwords come to mind: peer networking, outstanding programs, bridge building, collaboration, community and so on. But what I keep returning to over and over again is the concept of “innovation.”

Of course, you will likely be hard pressed to find many in the technology world outside of legal who immediately think “innovation” when considering our sector. With a few notable exceptions, we are not exactly known for being “bleeding edge” when compared to other industries. In fact, some of our organizations even pride themselves on being as far from the “cutting edge” — or any “edge” — as possible.

To illustrate, I refer you to *Exhibit A: WordPerfect v. Word*. Try explaining the drama and anxiety caused by that transition to anyone who has not worked in the legal industry and see what reaction you get.

## A WHOLE GREATER THAN THE SUM OF ITS PARTS

So, what is innovation in the context of legal technology? Where does it come from? How do I get some? Do I really need it? If I need it, how much does it cost? Can I get it for free? Do I have to buy it? Can I make it? Does the other guy have it? How do I know if it is worth it?

Many people think *invention* when they hear *innovation*. For something to be innovative it has to be new, right?

Not necessarily. I have learned that innovation — true innovation — is about connections. It is about finding new combinations that result in something better than what was there before. It is also about encouraging people, process and technology to join forces in unexpected ways.

For example, it’s well known that Thomas Edison was both an inventor and an innovator. It’s also known that he began working with electric lighting around 1875; however, 30 years earlier, J.W. Star filed a caveat for an incandescent bulb patent, and in 1859, another bulb invented by Joseph Farmer hung in the front window of a Boston machine shop where Edison worked.

Despite what our history books taught us, Mr. Edison did not invent the light bulb. Instead, he combined existing concepts from known technologies — electric lights, the telegraph, gas lighting — into something totally new.

## A DAMSEL IN INTELLECTUAL DISTRESS

Another example of true innovation may not be as famous, but it’s no less fascinating. Let’s call it *The Movie Star, the Composer and the Origins of Missile Guidance Systems and Packet Switching*.

Hedwig Eva Maria Kiesler was born in Vienna, Austria, between 1913 and 1915 — no one is quite sure because she always lied about her age. You might know her by her screen name: Hedy Lamarr.

Ms. Lamarr was the premier German actress in the 1930s. Her most notorious claim to fame was running naked through the woods — the first screen actress to perform nude on film. Of course, the camera was about 500 yards away, and nearly everything was left to the imagination. Still, this was pretty racy stuff for the early 1930s.

In 1933, she married Fritz Mandl, a German arms dealer who was obsessed with his beautiful bride, rarely letting her out of his sight. The couple often entertained the “who’s who” of German society, including Adolf Hitler, Benito Mussolini and other similar characters. During these parties, the conversation often centered around the latest in military technology and, in particular, torpedoes. However, these new weapons lacked a guidance system. The best idea anyone had come up with involved tethering the bomb to the ship until detonation. It was generally agreed that this might not have been the most practical solution if they wanted to keep the German navy afloat.

Hedy listened to these conversations and took it all in, though the men looked right through her. At some point, she had an idea: Why not use radio signals?

The experts dismissed her immediately. Radio wouldn’t work. After all, what if the enemy detected it and discovered their position? Or, worse, what if the enemy jammed or redirected the signal and turned the bomb back toward them? No, it was agreed, radio would not work. And besides, what did an actress know about military technology anyway?

Hedy persisted. She suggested breaking the message into tiny pieces and sending it out over a variety of different frequencies. Then, when it reached the torpedo, the message could be reassembled. (For those of you with any network experience, this might sound hauntingly familiar.) The experts simply laughed and told her to leave the thinking to the generals and the engineers.

In 1937, Hollywood called. Hedy escaped Fritz and the Nazis and moved to the United States, where she became one of Cecil B. DeMille’s most recognized stars. She married Gene Markey in 1939 and stepped back into the role of mistress of the house and chief entertainer. Her dinner parties now included the “who’s who” of Hollywood and American industry.

During all this time, Hedy had not given up on her radio guidance system idea. In 1942, she found a kindred spirit in American composer George Antheil. Together, they were awarded U.S. Patent 2,292,387 for their “Secret Communication System.” This early version of frequency hopping used a player piano roll to alternate the signal between 88 frequencies.

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The technology went largely unnoticed until the late 1950s and early 1960s when Sylvania and the U.S. military began to explore its use. In 1979, spread spectrum technology, as it had become known, was officially declassified. By the 1980s and 90s, it was being utilized in cordless phones, remote controls, garage door openers, sophisticated military signal jamming and cryptography technologies. Fast-forward to the present day and you will recognize Hedy's idea as the basic concept that makes the Internet and networking technology as we know it possible. Take a signal — or data — break it into tiny pieces — or packets — and send it out and reassemble it at the other end.

A fascinating and largely untold story, but you may ask, what is my point?

## HEDY NAMED VP OF “SPREAD SPECTRUM” PEER GROUP

What if Hedy had access to a network of professionals from a variety of backgrounds — experts in their fields — with whom to share her ideas and seek out support? In other words, what if she had ILTA?

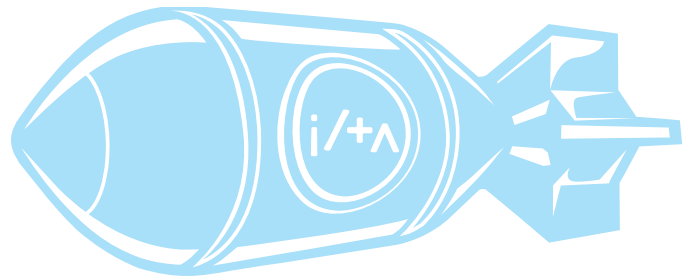
First, she would not have been dismissed simply because she was not a trained engineer. Second, her idea would not have languished unnoticed for more than 15 years. Instead, we would have created a Peer Group and added Hedy to its Steering Committee.

Combining ideas, technologies, processes and people in different ways to achieve something better — that is innovation. That is ILTA. Now, more than ever, expectations regarding what technology can do — and what we can make it do — are growing by leaps and bounds. Our organizations demand that we work smarter, with fewer resources and tighter budgets, while also improving the quality of service to our clients.

Rising to this challenge requires creativity. We must look, from different perspectives, at what exists today, and we must imagine what could exist tomorrow. Then, we must forge the path that will get us there by finding the combinations that solve problems in better ways.

ILTA — with its connections and wealth of resources — can be the critical link that makes this possible. There is great power in being able to post an E-Group message or make a few phone calls to instantly tap into the thoughtful, creative and innovative minds that make up the ILTA community. The knowledge shared through education opportunities such as webinars, podcasts, publications, local meetings and the annual conference is unparalleled.

The ILTA community provides you with the resources and support that Hedy didn't have. Ears willing to listen. Nimble minds willing to consider different perspectives. Most important, ILTA is where your voice can be heard and your ideas take flight. **ILTA**



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