

## **“CAN YOU HEAR ME NOW?”**

**Michael S. Williams**

*“Great discoveries and improvements invariably involve the cooperation of many minds. I may be given credit for having blazed the trail, but when I look at the subsequent developments I feel the credit is due to others rather than to myself.”*

-Alexander Graham Bell

If Alexander Graham Bell were alive today to see how his simple device has developed into an international communications system I think he would be amazed. How he must have toiled for hundreds of hours to develop his “electrical speech machine” in 1876.

Hot on the telephony development trail was Elisha Gray who was also working on a voice transmission device. Gray filed his patent application just hours after Bell’s application. As the story goes, Bell used some of Gray’s ideas to finalize what would become the first telephone.

By 1884 telephone long distance networks had been developed between Boston, Massachusetts and New York. These new voice networks started the move from the telegraph that had been around for over 30 years to the digital age we have today.

The first transcontinental telegraph lines were established by Western Union in 1861 along railroad right-of-ways. Railroads had been dispatching trains via telegraph since 1851 utilizing electromagnetic sounders invented by William Sturgeon in 1825. Today, trains are dispatched from central operation centers covering thousands of miles of track utilizing satellites, GPS and digital two-way radio technologies.

Just nineteen years after Bell’s history making invention, Guglielmo Marconi built the first wireless device better known as a radio. Telegraph, telephone and radio were soon to shape a rapidly growing world.

It did not take long for the next big step forward in communications with the invention of the first functioning television in late 1925 by Scottish inventor John Baird. His invention was based on the research and experiments of many inventors that dated back to 1873 with the discovery of photoconductivity.

True to the American way, people who developed many of these inventions headed to court for extensive litigation. Who invented what and when made for great early day case law for the legal world that had to catch up with the physical world.

Western Union was not impressed by the development of long distance service so they sued the start-up telephone networks. This trend is with us today as satellites replace hard wired systems, fiber optics replace satellites; wireless replaces hardwire systems and digital replaces analog.

Radio was on the heels of early telephony with equipment available for transatlantic shipping lines by 1907 utilizing Morse Code. By 1933, two-way radios had been developed for use by growing police departments. Handheld portable radios made their debut during World War II with both the Allies and the Nazis improving radio and radar technology. Today those bulky radios have been replaced by lightweight digital radios with amazing capabilities.

Great moments in commercial broadcast radio include countless speeches by world leaders and veteran broadcasters during World War II, Korea and Viet Nam. Other famous news events include the Hindenburg Disaster, the notorious Orson Welles War of the Worlds, Martin Luther King's – *I Have a Dream* speech, Gandhi's *Soldier of Peace* speech, President Kennedy's Cuban Missile Crisis and Sylvia Plaths' famous poem *Daddy*.

American politics changed forever on September 26, 1960, with the televised Kennedy-Nixon presidential debates. Television was not new; after all, programs such as the Ed Sullivan Show, I Love Lucy, Gunsmoke, Dragnet, The Honeymooners, Have Gun - Will Travel and the Danny Thomas Show had strong followings in the 1950's and 60's. However, it was the presidential debates that showed the real influence and power of television.

Nothing captivated the world like the events of July 20, 1969 when astronauts Neil Armstrong, Edwin “Buzz” Aldrin, Jr. and Michael Collins arrived at the moon in Apollo 11. The world watched in amazement as Armstrong and Aldrin landed their lunar module in the Sea of Tranquility on July 21<sup>st</sup> as one of the greatest human achievements of all time.

Other significant television events include the McCarthy hearings, President Kennedy's assassination, 9-1-1 and the first invasion of Iraq. Who would have thought people from around the world could participate in the real-time invasion of a country?

Recently in Paris, I called KZSB to give my Monday morning update. I grabbed my iPad which was wirelessly connected to the Internet. I activated the “Line 2” program and dialed the station. Within a couple of seconds I was talking to the studio with crystal clear audio with no latency issues. In some ways it was better than a conventional telephone. Best of all, it was free.

Today's telecommunications technology has reached a point that it is ahead of us. We have communication solutions to problems yet to be identified. Indeed, yesterdays small black and white television with only a couple of channels has been replaced by large screen laser and LED groundbreaking technology with newer flexible screens on the way.

We now have access to more television and Internet media channels than ever. Many broadcast radio stations are now simulcasting on the Internet. Web based social networks such as Facebook, Twitter, Google+ and LinkedIn are just a few of the free on-line free services used throughout the world.

Blogs have become another source of information and communication for millions of people. While conventional journalism is shrinking, no one can deny the profound growth of citizen journalist worldwide.

The lust for information is ever expanding and the demands to fill it are profoundly challenging. Two tormenting questions are how to best satisfy this challenge and who is going to pay?

The on-demand nature of today's society for information becomes problematic during emergencies. The nature of emergencies is such that prepared people and businesses do better than those who are not. This includes access and dissemination of information.

Storms, floods and unrest come with some warning. However, fires and earthquakes are sudden events that occur without warning. Either way, it takes time for events to unfold and be translated into words.

The electron highway moves at the speed of light. Locations, names, and even specific words mean things so they must be checked and confirmed to be correct. This takes time. The meaningful development of quality information will never be able to catch up with today's ability to disseminate it. Thus, our never ending quest for more and more on-demand information is never going to be met with total satisfaction.

In Southern California 85 public-safety agencies covering over 4,000 square miles supported by 34,000 first responders are building the Los Angeles Regional Interoperable Communications System. The system will provide analog and digital transmissions as well as broadband wireless networks utilizing Long-Term Evolution technology. This wide-area communications infrastructure will support public-safety needs for over ten million residents and 26 million annual visitors to the greater Los Angeles area.

How will you get your information in an emergency - local radio, Internet news, Blogs, email from friends, Facebook accounts, Twitter, word of mouth or telephone? All of these methods work, but which serves you best will depend on many factors most of which will be outside of your control.

In the end, it may well be back to basics with what works, the AM/FM radio in your car and a good old hardwired telephone that does not require electrical power - simple and effective. Are you ready?