## **COVID-19 (Novel Coronavirus) Pandemic - Evolving Permanency**

**August 24, 2020.** The virus has required businesses to adapt and to seek alternate protections and safeguards while the country idles in neutral waiting for the pandemic to end. There is a general sense that everything is temporary and we will eventually get back to the way things have always been. Is that true or do we need to recognize we are in the midst of an evolving permanency; a new world of computer applications that will have vast social and business implications.

It is easy to see how Internet-based technologies, such as Zoom, have emerged and how they have been employed in a large, real-time test bed. This real life experimentation is helping businesses to consider the "stay-at-home" concept as an acceptable practice going forward. The same is true with medicine and online learning. What is common result of each experiment is that the players (teachers, students, businessmen, doctors, patients, etc.) have not been effective mainly because they are using limited tools and applications that were never developed for the world in which we are living.

As the Internet grew in use and importance, big cracks in the infrastructure were uncovered; such as computer viruses, phishing attacks, website hacks, ransomware, denial-of-service. As reliance on the Internet continues to grow security and privacy concerns have become a priority for all individuals and businesses. As a result, a whole new security industry has emerged and every large corporation employees a team of technology security staff.

A year ago if the US Congress proposed massive spending on cybersecurity, the bill would have likely received broad consideration. If at the same time legislation put forward to combat a pandemic, the bill would have likely gone nowhere. Of course a year ago no one could have perceived that a virus was going to put a stranglehold on the country. What next? Waiting a year or more for a vaccine can't be the long-term solution and virus research is going to need to accelerate.

But we can't put all our eggs in one basket and risk having a repeat of 2020. We need a new set of computer applications that make online interactions natural and useful instead of clumsy and ineffective. For example, stay-at-home instruction has generally been considered a failure, yet here we are heading into the new school year using the same insufficient tools and applications. We have a national problem and consequently there is a real business opportunity; one that will need to be part of the contingency planning for every school district in America.

What will these new applications look like and how will they work? We need permanent, specialized solutions that would build on top of video conferencing technology, not merely employ it. For example, the teacher's instructional application would include all the class material (e.g., lesson plans, reading exercises, practice drills, testing) and with video conferencing with the students being just one component of a complete package.