LECTURE 1 – FUTURE TECH, AND ID/A

FUTURE TECH – ORWELL, INTERNET, KURZWEIL

OK, so we took a look at where we are and how we got here. And we talked about where we were going and where we wanted to go. But that only got us a decade or maybe two into the future, with not very much seeming to change. So now, LEARNED TRAVELER, let's see if we can **do better** than that. Let's just look around us and see what some people are predicting about the future. George Orwell's totalitarian government view of "1984" turned out in reality to be – drum roll, please - the early part of the Community Policing Era! A bit off the mark, I'd say – more **tweaky** and **wussy** rather than **jack-booted,** as I indicated earlier. But we should be able to do better than that **-** **'cuz** we're smarter and **better-looking**. So let's just for kicks jump 100 years ahead of 1984 into the 21st century and try to figure out how the police criminal investigation process might look around the time of 2084. That's probably **twilight zone-y** enough.

So the Internet was started around the 1970s, and the World Wide Web around the 1980s. Desktop computers proliferated in the 1980s and 1990s, e-mail became available in the 1990s, and laptops were popularized shortly after that. In the first decade of the new millennium we were introduced to **Twitter** in 2006, the Apple iPhone in 2007, the iPad in 2010, and the Google eyeglasses in 2013. I can hardly wait to see what comes next, but it seems we're moving along at an **increasingly faster pace** with all these **whiz-bang** new devices.

Ray Kurzweil, K-U-R-Z-W-E-I-L (born in 1948 -), is a fairly well-known computer scientist and futurist who was born just about the time Orwell wrote 1984. Coincidentally, Kurzweil has also written a number of books and made numerous predictions about the future, many of which have come to fruition. [119]   He currently talks about things to come that make me wonder about how they might impact the criminal investigation process. He said that **Moore's Law** (which essentially states that the speed of computer chips will at least double, or increase exponentially, every two years), that law applies to much of technology, wherein the rate of change in a wide variety of systems tends to increase exponentially. He calls this the "**Law of Accelerating Returns**." He also says that in 20 or 30 years we will be shooting "millions of blood-cell sized devices, known as **nanobots,** N-A-N-O-B-O-T-S, inside our bodies to fight against diseases, improving our memory and cognitive abilities." [119]   **Wow.** That wouldn't quite get us to 2084, but mid-century is pretty good for **starters.**

So now I'm thinking of the **three investigative techniques** I talked about earlier in Module 2 (that would include ID/A, S/S and I/I), and I'm just wondering how these new developments might be affected by all the new technology.

HOW WILL IT AFFECT ID/A?

We know that most crimes reported to the police are closed as unknown subjects because of insufficient information to develop the identity of the offenders. But let's just consider **cameras** – we talked about them a little previously. The police now have cameras in cars, on streets, at traffic stops, and even on police officers lately. Businesses have cameras both inside and outside their facilities for security purposes. Private residences also have security cameras to protect their property and nanny-cams to protect their children. Many even have cameras mounted in their vehicles to monitor activities as they drive. Just about everyone who carries a cell phone has the ability to take a photo or a video or audio anytime or anywhere they want, and then post them on YouTube or Facebook or wherever on the Internet. So we as individuals are having greater and greater percentages of our lives, activities and personal conversations documented digitally, whether we want to or not. And whether we are aware of it or not. And the number of cameras in all areas are increasing, some would say increasing exponentially. And even today we often hear of police tracking the whereabouts of persons of interest through cell phone towers, street cameras, personal videos and similar devices.

So without any rules or law changes, camera technology is becoming more and more of a help to police in investigating crime. A person can be identified on a camera at the crime scene, or actually substantiate an alibi by being identified on a camera away from a crime scene, at the time a crime was committed. And as cameras increase, they give every indication of becoming increasingly more valuable to police.

Once you are on video, you can often be identified through the application of increasingly more powerful **facial recognition** software programs. These things are springing up everywhere, driven by the effort to identify terrorists in airports and crowded areas and such. But the power of these programs is increasing exponentially, and now I understand that **Interpol,** the international crime organization, is preparing guidelines and standards for its 190 country members for the implementation of facial recognition programs

on the international scene. [120]   Imagine, virtually any country port of entry that you travel through in the world will eventually have the capability to video record you and even identify you if necessary.

RECOLLECTIONS – THE US, KOREA, VIETNAM, IRAN, EUROPE, AND BACK TO THE US

But now let's go **beyond cameras -** and bear with me a little bit here, OK? I remember my mom telling me the story of how her **younger brother** had joined the US Army during World War II, and was killed in action on an island called Saipan, somewhere in the Pacific. Over a year later the Army sent his remains to her, casket unopened, and she laid them to rest in a cemetery next to her mother and inscribed his name on the tombstone. But who knew what or who was in that casket? But she accepted the word of the Army and treated the remains to a proper burial. It's been almost 70 years since his death, but I still remember.

I remember when I was in **Korea** in 1965, I was walking across an open field and the ground under my foot suddenly gave way. I fell into a shallow hole full of human skeleton bones. They turned out to be South Korean soldiers who had been killed during the Korean War in the 1950s, but their names were unknown.

Then in **Vietnam** later on in the 1960s, I stumbled across a small plane crash site out in the jungle boondocks and saw several human skeletal remains at that site. I don't know if they were ever fully identified. And just shortly after that I was called to the shoreline of the Mekong River where a local Vietnamese child had found the floating body of what looked like a male Caucasian in civilian clothes. The cause of death and his identity were never determined, to my knowledge, because adequate facilities were not available to process his body at the time.

Then in the 1970s, I found myself walking down a crowded street alone, in **Teheran, Iran,** after the Shah had left, the Imam Khomeni took over the government, and the fundamentalist Islamic movement was first being popularized. Our families had been evacuated from the country on Christmas Day, and my military co-workers had also just been evacuated. But I had to stay behind to try to wrap up a few loose ends. I remember as I walked down that street, thinking about my uncle, the Korean soldiers' grave, the plane crash and dead body in Vietnam, and I wondered what might happen to my remains if I somehow met my demise while alone in Tehran. Needless to say, I'm happy to report that that didn't happen, but it did give me pause to wonder.

Later on, in the 1980s, I toured a number of **US military cemeteries in Europe**, and was literally stunned to see so many graves, so many head stones, row after row upon row, of US soldiers with the word "Unknown" inscribed on it – on foreign soil.

Each one of these times I remember thinking to myself **how do the families** of these unknown soldiers feel? How do they cope with that? Their parents, siblings, spouses, children – all they knew was that their military person was MIA, missing in action, presumed killed, or something, and maybe buried in a grave with a head stone bearing the word "Unknown" on it. Maybe unknown, but not forgotten.

Then one day in the late 1980s, I remember sitting with my family and talking about getting one of those **new-fangled** little **identity chips implanted** into our frisky new little puppy dog, so if he ran away or got lost, we might be able to track him down somehow. And I quietly thought to myself, "Hey, that's a good idea, maybe a **big puppy dog** like me needs one of those, too." It had always been a worry to me that if something happened to me, my family might not immediately (or maybe even ever) know what happened. Aside from the devastating psychological impact of that happening, they might also have some delay or problem in receiving all the survivor benefits that I had made sure that they were eligible for, just in case. And I know I wasn't the only one bothered by that. But, as I was only a couple of months away from retirement at the time, I never followed through with the idea.

Now I know we can identify people through fingerprints and DNA, etc., but sometimes even that doesn't work if a **body is never found.** And I think the military may be collecting DNA from soldiers, and experimenting with implanting chips into soldiers' bodies nowadays. But that stuff still may not help to find bodies. So I was just thinking – what if all those nanobots we're **gonna** get filled up with to fight diseases and such could someday also actually **give off or reflect a signal** or something. Seems like we can already do something like that with radar bouncing off an object, or using a metal detector to find coins or gas pipes buried underground. So maybe we could just sweep areas with electronic beams, or even use satellite GPS systems, to locate people's bodies filled with nanobots. We do something similar to this concept already with GPS locator devices for elderly or infirm people to prevent them from getting lost, and with convicted felons wearing ankle bracelets while out on parole to keep track of their activities.

But what if we could **track everybody**? How many times have we heard about people breaking parole, escaping from law enforcement custody, having warrants put out on them, while they wander amongst innocent civilians and maybe commit further crimes? How many times have we heard of serial killers who confessed to killing so many people that they could hardly remember where they buried them all. How often have you heard the term "lost at sea," or "kidnapped," or "young college coed reported missing," or other words used to describe people who could not be found, like after airliner crashes, earthquakes or other catastrophes? And 9/11 – have we identified everyone there yet?

THE 90,000 "UNKNOWN PEOPLE" AND NANOBOTS

It's estimated that, on any given day - **now get this** - that on any given day there are between **80,000 and 90,000** active **missing person cases, in the United States**! And incredibly, about 40,000 human remains that have been recovered but not identified. [121]   This is inside our country! That takes my breath away. I mean, we all love our puppies and other pets, but **we're talking** people here. That's more than the population of most towns in the US! And what about finding and rescuing downed pilots and other people still alive, who may be lost in the woods or floating around in the ocean or buried under an avalanche or something? We use tracking and rescue dogs for some of this stuff, but is that the best we will be able to do 50 years from now? So wouldn't it be great if these nanobots that were designed for health purposes could also help us do that, especially if they gave off or reflected some sort of signal or something that would help us locate the living and the body parts as well as identify them? **How hard could that be**?

Well, if we can track people, and some of those people turn out to **be crooks**, maybe we can track them, too. Cameras can only go so far, but don't you think we will eventually be able to track everybody everywhere? Or at least have the capability to do that? Like what the NSA is doing with our phone calls, emails and stuff. There's records of them all, but most of them can only be accessed through a court order. Just think - illegal border crossings, tunnels used for smuggling in the US and Israel, human trafficking, drug trafficking, you name it, the possibilities just for tracking criminals seems limitless.

If we wanted to **identify the whereabouts of an individual secretly**, and cameras didn't help, we could get a court order to access GPS tracking data for certain periods of time and at certain locations in the past to see if

we could find the nanobot trail of our subject. We could use the results for counterintelligence surveillance, or to determine whether or not the subject was at a crime scene. Think FUCHS, HALL, AMES and HANSSON here, for starters. I wonder what the name of the next guy will be.

Man, this stuff **would be great**!! Don't you think so? Imagine how much **fuss and bother** and **wasted shoe leather** and time and dollars that would save. We might even cut into the trillion dollars in losses that crime costs us every year. And it might even be admissible as evidence in court for prosecution, or even for exculpation so we don't convict the wrong guy. Now that would be - **awesome!**

So people who **might voluntarily have nanobots** in them might be less likely to be falsely accused or convicted of a crime. And they might be deterred from committing a crime because they would know they'd likely be more easily identified and brought into the CJ system for prosecution. Plus, they would have the added advantage of being tracked and found in the event they became lost or hurt, or even killed. And those who did **not** have nanobots implanted in them – well, they'd just have harder times being found or verifying their alibis, unless their whereabouts could be determined from cameras and face recognition software. And, if we can eliminate the people with nanobots, then we can focus on the people with no nanobots. Or would that be nanobot profiling or something?

So if you haven't guessed by now, **I'm for every man,** woman and child (and pets, too) on Earth having implanted chips or nanobots for their own protection, and for the protection of society if they commit crimes. And I think (or at least hope) we'll have the capability to track almost everyone by the year 2084. Now **I get that** this stuff has to be properly controlled (checks and balances, **check the checker,** etc.), and there's always risks in that. But I personally, based on my own experiences, am more concerned about the risks to the safety and welfare of me and mine than I am about the threats to our security or the rights of crooks!

OK, all you "**disagree-ers,"** I can see you lining up against this great idea, already! Long line, too, by the looks of it. But wait, I'm not finished yet. Let's do the S/S and I/I and other stuff in the next lectures, and then see what you think.