

EXPECTATIONS OF JUSTICE/CORRECTIONAL TECHNOLOGY THROUGH 2021

An accompanying slide show can be found at the
ICPA website and at www.profsyseng.com

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Did you know that the world's second technology was security? The second technology includes tracking, trapping, and the training that goes along with it. This technology needs to be established after the first technology – tools to eat. This included sticks, scoops, reed bowls, and cutting and scraping and pounding tools.

Second, of course, to eating was not getting sick from what you ate. Men learned very early from primates that sticks with charcoal on the end for many provided a resource for killing bad bacteria in the gut from bad food. This he learned from the chimpanzee and other non-opposing primates.

Then came the second technology, again learned by observing animals in the wilderness, both their prey and their predators. While at once man wanted to learn how to track prey similar to animals, they wanted to also be able to trap their animals and at the same time, not be trapped themselves. This required training. Thus, tracking, trapping, and training were the three elements of the second technology, that being security.

Tracking involves following someone, alerting through a local threat, or finding an invader. Sound similar to law enforcement and detention facility security?

The Israelis commonly use the Bedouin to track suicide attack infiltrations behind the fence lines in addition to highly sophisticated perimeters.

Trapping first involved covering holes for prey to fall into, followed by tensioned branches and trees. Trapping later turned into the avoidance of being trapped by protecting one's self, creating citadels, forts, and morphing into detention and correctional complexes.

Training required the creating of a paramilitary structure. Long distance communication skills included smoke signals, mirrors, birds, and fire. With these skills and abilities, there needed to be standard operating procedures in the form of field orders to attack prey or defend or invade, which is equivalent to post orders when communication is indirect.

This practiced use of standard operating procedures in a forward, carnivore, food-gathering effort proved helpful in translating meeting the security needs of the community.

Policing, justice, and of course, establishing the next use of technology for security and, in the case food, to preventative measures.

Tracking turned into detection and surveillance of those penetrating perimeters.

Trapping turned into stopping individuals with stone and dirt barriers. Of course, the most famous barrier ever constructed which still stands today, was the Old City in Jerusalem. Dating to 828 ACE, some portions of the wall are 18 feet thick with many layers of construction being added as much as 1,000 years later.

The poor lad who got the commission to build a major portion ended up being found guilty of pocketing many shekles into his own pockets. A statue of the likeness of his own severed head in a “Picassoesque” form rests at the entrance to one of the few gated entrances. Again, these gates “trap” those from entering by keeping them on the outside.

Training stands a wide berth in being critical to survival from a security perspective. We’ve recently seen detailed social interaction of primate groups, and was no picnic under the beautiful trees in Tokyo. Defensive mates, animals, and children became a daily life or death security strategy.

SECURITY TECHNOLOGIES' GOALS

Security technologies' goals may not be as simple as specifying the best, fastest, and most expensive piece of equipment available. Add in operational support on a 24 hour/7 day a week/365 days a year plus shift changes, as well as information technology (IT) support personnel, and the best technology can be costly – especially to maintain.

We all know operating costs increase and budgets are often insufficient, so again we want operating, training, and maintenance costs low while system price should also be low.

Security Technology Postulates

Complementary to this paper are graphics which represent technology implications and concepts to be shared. The graphics are much more intuitive and representative of the concepts than that which appears in writing. Here are the postulate statements:

Security Postulate 1

- The most dependable system uses the lowest technology with the highest functionality.

Security Postulate 2

- The most efficient system needs the least operational support, acting essentially as the independent operator, while also needing the least support from Information Technology (IT) departments.

And for those who have to pay for the technology;

Security Postulate 3

- The most appropriate selection of a system is one with the lowest operator training cost at the lowest obtainable price.

Let's look at some examples. Does the most dependable system use the lowest level of technology with the highest functionality? A clear example is using real-time video matrix switchers instead of IP or virtual switch systems. IP switching has, at the moment, insufficient multiplexing capabilities. It has high latency, switching delay, and sometimes picture quality difficulties. While this is the case today, by 2021 accommodations should be available to provide for significant non-delayed switching and higher quality pictures. The availability and quality of such a system would be expected no later than 2016.

Does the most efficient system need the least operational support? Well, this should be obvious. If it takes as much IP support as it does for support to operate the system, it's not the most efficient system for justice or correctional environments, or community release environments where wrist bands, ankle bracelets, and other monitoring gear needs to be maintained on a daily or even hourly basis. Again, it should be almost "automated" in its monitoring analog.

And finally, is the most appropriate selection of system one with the lowest operator training cost at the lowest obtainable price? It would be nice if there was a universal, foolproof system for community release with monitoring that would instantly track alcohol use, drug use, and have built-in face recognition for those he or she cannot meet with. As this method of community monitoring will be more available with better compulsory technology for probationary sentence compliance, these features will surely be more available through 2021.

The Application of Generally Acceptable Security Practices Using Technology in the Justice System

There are several reasons why the application of generally acceptable security practices using technology in the justice system creates efficacy:

- It promotes the rule of law;
- It ideally separates and neutralizes criminal activity from the general public by being adjudicated to secure detention services;
- It is an immediate reflector of the country's Human Development Index in detention settings as represented by U.N. *Standard Minimum Rules of the Treatment of Prisoners* - the higher the index, the more social rights including education, women's rights, less political incarceration, less religious intolerance, and higher personal economic status as compared to other nations;
- Through accreditation or just through good fundamental non-punitive (but reward based) policy, it may encourage respect, societal repayment, behavior modification, and officer/inmate/volunteer/treatment service personnel greater safety;
- Finally, it provides a legitimate, incorruptible and indivisible boundary between enforcing the rule of law and the exceeding of one's authority – reaching into what amounts to criminal activity;

The use of generally acceptable practices and the integration of technology in our justice environments through 2021 will increase and provide better monitoring, application of equal justice, and prevention of what is considered by the U.N. to be human rights violations.

Let's review some examples in civilization how the application of better acceptable practices and technology has improved human rights and conditions in detention facilities, correctional settings, and in community-based enforcement.

Examples of How Better Security Practices and Technology Have Improved through Time

Prisons and jails of the late 19th century included bar stock for cells, brick and mortar construction, hard reverberant furnishings, large locks and keying pilasters with, more often than not, little regard for gang release in the event of an emergency. Also, bathing and bathroom facilities were marginal at best, and cleanliness of institutions were less than palatable.

By the 1940s, prisons had evolved to concrete and, in many cases, marine construction using individual steel cells as the building material in developing countries. This “unitized” construction provided prototypical development of cells and management of difficult inmate populations. But again, gang release was not universal, being highly complicated gear and wire rope retrieval systems for gang cell door movement.

Electricity in cells with lighting was not universal, and often exposed guards to attack with hot electrical wires or even cords stripped of their coating. In fact, many architects became involved in providing electricity on their drawings and in their specifications without the aid of an electrical engineer. Simple line drawings showing a physical light bulb in each cell “looping” in each and every cell were not uncommon - one string of lights being connected to one, round, screw-in fuse.

Improvements in site and facility technology such as walls, doors, windows, cells, and ceiling, correctional building systems, life safety systems, communications systems, and finally, community-based monitoring systems have all improved in the last 80 years.

Wall construction can be everything from a hardened gypsum wallboard material to a super strong, pre-stressed concrete monolithic pour with a virtual “impossibility” of defeat.

Even high security caulks and fireproof penetrations have made the modern correctional and detention facility much safer while increasing the ability to keep clean, prevent mold, and help in the long term use of the facility.

And we must remember that detention and correctional facilities are 7/24/365 facilities which see 30 years of equivalent service in a 10-year span. Its 24 hour use puts tremendous strain on facilities and the built infrastructure.

This is why sprinklers and fire/smoke detection is so important in many countries to provide that level of life safety and human rights. Just one incident with the injury or perhaps death of multiple inmates can seriously detract from the concept of providing United Nations compliant detention, let alone public outcry and demand for retribution.

Without technology, the move toward generally acceptable practices of house detention and restricted monitored movement would not have been available unless superior GPS and wireless monitoring were available.

Certainly internet-based equipment to monitor alcohol, drug use, and to provide monitoring is an improvement for 24 hour/day compliance, but just as mobile applications have taken hold throughout the world, it is expected that more mobile devices for monitoring detainees will become available with the detainee absorbing the cost. Unfortunately, this puts an economic stranglehold on the monitored individual by their being forced to pay when economically they may not be in that privileged a situation.

By the same token, having health providers available by the web, as well as social services for mental health and job monitoring have provided such technological innovation to community-based monitoring that these concepts were dreams only 10 years ago.

By 2021, the application of web health, social services, location denial by monitoring of restricted travel, and drug monitoring will all be available and commonplace.

OPERATIONAL AND ECONOMIC ASPECTS OF SECURITY TECHNOLOGY

Operational aspects reflect the effect of technology on justice business practices. Five (5) categories are identified and include the maximizing of staffing assignments, creating business model efficiencies, compliance with U.N. models, bringing structures and policies up to date, and attainment of accreditation by a standards group. These five aspects are listed in the table below.

The Effect of Technology on Justice Business Practices

| Maximizing of Staffing Assignments | Creating Business Model Efficiencies | Compliance with U.N. Models | Bringing Structures and Policies Up to Date | Attainment of Accreditation by a Standards Group |
|--|--|------------------------------------|--|--|
| Good detention practices | Command, Control, Communications and Intelligence improvements | Positive human rights observations | New buildings bring new infrastructure and new technology | International organization compliance with NGO's and others. |
| Good life safety practices | Riot, escape, and emergency response team preparation | Provides safety | New technology brings new policy, procedure, and post orders | Government authorities |
| Promote hygiene while increasing monitored movement | House detainment | Promotes dignity | Promotes self-actualization | Other member based organizations |
| Good treatment practices reduce communicable disease | Alcohol/Drug monitoring/disease case management | Promotes health | Better civilian practices | Support and confirmation by NGO's |

The economic aspects are justifiably represented as return on assets utilizing security technology. Return on assets is a better definition of buildings, infrastructure, and technology as it applies to a government funded installation. As a government, funding of property and equipment through the purchase of bonds or other revenue streams, and the greater the efficiency of the use of the capital with reduced risk, the better the investment and the outcome on an economic avenue.

The return on assets in utilizing security technologies is summarized in the table below with expanded enumeration that reflects the same five (5) practice strengths mentioned above.

The Return on Assets in Utilizing Security Technologies

| Maximizing of Staffing Assignments | Creating Business Model Efficiencies | Compliance with U.N. Models | Bringing Structures and Policies Up to Date | Attainment of Accreditation by a Standards Group |
|--|---|--|--|---|
| Less staff turnover | Hardened and technology enhanced safety tension lowers risk | High human development index increases country's stability and investment appreciation | Better operations | Staff control |
| Greater policy compliance lowers physical assaults | Reduction of incarceration by returning sentenced to monitored supervision in the community | Reduction in U.N. and NGO complaints | Reduced waste/disease and sick time-off control | Case management/ Less assaults/ Stronger image |

A Power Point slide show represents the current state of technology, its possible 2021 path, several ratio diagrams to impart the actual effect of technology, and three (3) case studies including a re-entry program with technology support considerations.