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The futures of policing: Going beyond the thin blue line

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ABSTRACT

Is proactive and predictive policing possible? Based on an examination of drivers and emerging issues related to law enforcement, this article explores the alternative futures of policing. Four scenarios are posited: (1) Policing that is unable to adapt but no one cares, (2) Policing value in question, (3) Policing fragmented, and (4) Prevention in Policing. The essay concludes by linking general policing futures with the 'Pearls in Policing' action learning process as one way to move policing from reactive to preventive.

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1. Popular culture and the futures of crime and policing

What are the futures of crime and policing? One way to understand the futures of crime and policing is through popular movies. In the 1976 American movie *Logan's Run* living past the age of 30 was in effect a crime. Population and resource consumption were maintained at a steady state through policing. At 30, individuals ended their lives, though they were told they were "ascending". Demography was the primary issue in *Logan's Run*, and remains so in the real world. As we rapidly age [1]—throughout the world though far less in Africa than in OECD countries and China (there are likely to be over 480 million people over 60 by 2050) [2][1]—criminal activity towards, and by, the ageing will likely increase and new crime categories, unthinkable today, will be created. Along with ageing is the youth quake. As the Age quake moves towards Asia and Africa [3] (in the 60s it impacted upon the USA and Europe, and now it is impacting upon South Asia [4] and the Arab world), we can forecast major political uprisings or dramatic increases in crime as young males, generally those who are unemployed, search for work and purpose. Civil conflict will certainly increase as political authority is challenged [5]. And there is also the possibility of a dramatic demographic dividend, which would allow for the development of a middle class [6]. Demography, after all, is not destiny.

In the 1982 film *Blade Runner*, the criminals were replicants—biogenetically engineered individuals who performed tasks humans found distasteful. They were banned from Earth, and if they secretly returned were hunted down and "retired" (permanently deactivated) by "Blade Runners" (specialist police). Crime was associated with the undesirability of co-existing with a new species (one that, ironically, we had created). As the explosion of science and technology continues, new crimes associated with out-of-control robots and vicious digital viruses are likely to increase, becoming far more serious threats than they are today [7,8]. Policing will need to adapt to this new AI-roboticized world. Certainly robots will damage humans and nature. Who will be liable? Corporations who own them, geeks who design their software, or, as robots become learning machines with some degree of intelligence, will they develop some level of "rights" [9]? Will police be called on to track, monitor, arrest, and disable artificial intelligence entities? Or can we imagine even stranger futures? Already there are legal debates on human–robot marriages [10].

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[1] China will move from six workers for every over 60 in 2000 to two in 2030.

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While technology will certainly challenge current policing, making the world far more risky, the science and technology revolution also provides new tools to address crime. For example, new forms of lie detection, based not on anxiety but on brain scanning, are likely to enhance the likelihood of apprehending and convicting criminals. In 2008 a woman in India was found guilty of murder on the basis of brain scan evidence [11,12].[2]

The 2002 movie *Minority Report* takes this much further when a number of psychics gain the ability to predict crime. Police appear at a crime scene just *before* the criminal act is actually committed. However, and not surprisingly, mistakes are made. Eventually this programme (except 'program' in computers) of policing must be abandoned, but not before considerable harm is done. Increasingly, we can expect varied attempts to intervene *earlier* in the crime cycle. These will likely be in the form of enhanced surveillance technologies: from cameras in the sky (mounted on drone aircraft) to bio-monitoring cameras in the body. Prevention will certainly take on a new meaning. As a first step, prevention oriented policing is focused on data crunching leading to models of areas where crime is likely. This allows for a wiser use of resources. Colleen McCue, a behavioural scientist with GeoEye, a firm that works with US Homeland Security and local law enforcement on predictive analytics, writes that "studying criminal behaviour [is] not that different from examining other types of behaviour like shopping. . . ."People are creatures of habit". "When you go shopping you go to a place where they have the things you're looking for . . . the criminal wants to go where he will be successful also" [14]. The psychic of *Minority Report* is now the artificial intelligence geo-statistician. Overtime, these AI systems will continue to gain in complexity, even becoming adaptive as criminals attempt to predict the strategies of "predictive policing."

Movies like *The Day after Tomorrow* (2004) focus not on future crime, per se, but on the importance of factoring climate change in to our predictive models, though certainly the reality of Hurricane Katrina demonstrated the critical importance of police leadership in creating security and safety in disaster situations. As climate change continues to disrupt the planet—creating droughts, floods, tidal waves, and typhoons, to begin with——the move towards sustainability will no longer be merely a 'feel good,' 'green' option; rather, it will become mandatory and need to be policed. Environmental crime—crimes that make an eco-system more vulnerable, at national, corporate and personal levels—will grow. As regulation thickens and expands, police and other branches of law enforcement will be called onto ensure compliance. Unfortunately, given the tendency of policing to be reactive—waiting for legislatures and judiciaries at the nation–state jurisdictional level—law enforcement agencies are unlikely to have the necessary skill sets to proactively and transparently police new arenas (ageing, environment, cyberspace, global, genomics, to name a few). This can lead to the *Judge Dredd* and 2012 future (based on the comic book character and the 1995 and 2012 movie) wherein to deal with changing technologies and a complex environment, police acquire "instant field judiciary powers" [15]. However, legitimacy and public trust can only decline once the separation of powers is breached or technology runs ahead of civil regulation.

2. Futures of crime

To further our understanding of policing futures, we need to conceptually understand the futures of crime more effectively. First we need to challenge how we define crime. Postmodernists, such as philosopher Michel Foucault, suggest we consider crime as socially constructed, historically defined, and not as an a priori universal [16,17]. Laws are invented. For example, thirty years ago in developed parts of the world, forecasts of water scarcity and water crimes were dismissed. However, today, because of water scarcity, watering lawns in many cities is a punishable act. Will a water mafia develop in the near future? In poorer countries, electricity theft is already common [18]. Policing energy, however, is challenging because corruption ensures that offenders merely pay a "personal fine" to the local police officer or electric company. Energy "thieves" are certainly not yet seen as criminals. In Pakistan, because of energy monopolies, home solar energy systems are unlawful. As energy systems become smaller—through nano-tech and bio-mimicry inspired solar and wind energy systems—and more distributed, how will they continue to be regulated and policed?

Or imagine a future vegetarian society where those who eat meat are sent to prison. What would our prisons look like then? What would be an appropriate sentence for a meat eater? What would early intervention be like? Given the link between our diet choices and climate change, is this really a far off scenario [19]? Leading water scientists are already asserting that "the world's population may have to switch almost completely to a vegetarian diet over the next 40 years to avoid catastrophic shortages" [20]. "Humans derive about 20% of their protein from animal-based products now, but this may need to drop to just 5% to feed the extra 2 billion people expected to be alive by 2050" [20]. And if the production of meat for human consumption becomes a criminal activity, how will those who skirt around meat prohibition be treated?

If environmental sustainability (how green are you?) is the emerging future, should the police of 2012 move towards carbon neutral police stations, cars? Should prisons become totally green? Should police and correction facilities engage in green audits? Become vegetarian to lead the way and better represent the changing community? And as we continue to globalise, what is the appropriate jurisdiction for these sorts of questions? While there are certainly some geographical distinctions, as we continue to move towards a fully globalised society (capital, technologies, climate and crime do not respect national boundaries!), can we create policies and laws around policing and prisons that are also shared at the planetary level?

[2] While the evidence remains mixed, certainly neuroscience information carries with it the allure of certainty [13].

Body weight has also become a global issue, and may soon become a policing issue. Write British researchers, "if the human race keeps growing fatter at American rates, the Earth may face a rise in food demand equal to that of nearly a billion extra people." Expanding waistlines threaten the planet [21]; as challenging as overpopulation in poorer nations is, obesity in wealthy nations and in the wealthy parts of developing nations (India, China, Pakistan, for example) is of equal concern because of the "threat to our planet's finite resources" [22]. In Pakistan, the police chief of Punjab has said that 77% of officers were overweight, and would need to reduce their waistlines if they wished to continue their current jobs [23]. And in Queensland, Australia, the new Police Commissioner is "considering waist-cutting measures such as annual fitness tests and cash incentives for officers who stay trim and healthy"—what is being called the "the slim blue line" [24].

In the future, not only will police have to regulate anti-fat laws—given the correlation with decreased national productivity and higher health costs—they will need to police their own waistlines. The debate will move from "my fat" (as a personal issue) to "our fat" (as a collective issue given the correlation with public health costs) and even to—though hopefully not—"your fat" (vigilante bullying type activities).

Of course, these may seem like marginal issues in the face of organised crime and violence against children, but already we see the lines shifting. We know that 165,000 children a year die from second hand smoke, making it one of the biggest killers today [25,26]. Will police be called on to ensure that those who smoke in front of children are prevented from doing so? Or is this a line of personal and familial responsibility that should not be crossed, as with diet (though PETA is already challenging this boundary, calling feeding meat to children a form of child abuse [27])?

However, these lines change as society changes, as what we consider 'normal' shifts. In what ways should police and prisons be representative of a changing society? While legislators generally solve this issue by enacting laws, should police, as co-producers of safety and security, be proactive and at least be part of the debate as to what is "policeable"?

Alternatively, police may proactively decide that they are being asked to do much. Instead of tackling more and more issues, they may decide to focus on core issues—city safety and security, organised crime and opportunistic crime. The new crimes, caused by demographic shifts—youth and ageing—the transition to a digital economy and even a genomics economy, as well as climate change, should not be core police functions unless and if they challenge the daily safety and security of the majority of citizens.

Should police focus on core issues or go with the flow, and represent changing social values and the changing nature of crime? As Foucault's work suggests, to understand the futures of crime we need to understand the nature of society: what is most important to us? What do we value today? What might we value tomorrow?

2.1. Down-stream issues—rehabilitation vs. punishment

While these are generally upstream issues, there are significant downstream concerns that impact the police, particularly as to the best strategy to deal with offenders to ensure that they do not offend again, and thereby increase police caseload.

In the USA, and most developed nations, the main debate as to the futures of justice is between rehabilitation and punishment. Those on the rehabilitation side believe crimes are generally committed for social and economic reasons. They also argue that crime and criminality is socially constructed, and thus not a "God-given" universal context but one that is created through historical practice.

The argument runs: born into a poor family, or a single parent family, a person goes to a second-rate public school that labels them an under-achiever. Overtime, they see themselves as not worthwhile. Eventually (and especially if there is a nominal increase in their wealth) noticing their relative deprivation—that others are driving fancier cars, have more "perfect" wives and girlfriends, live in beautiful estates—and accompanied by a trigger event, they steal, or commit other crimes.

Imprisoning such a person merely adds to the problem. In gaol, offenders rarely learn new skills, except those that help them to be more successful criminals. Their peer group consists of other prisoners, with similar stories. When they are released from prison, they stay within their [28] learned behaviour and thus are likely to commit crimes again. For police, it becomes the story of re-arresting the "usual suspects."

In contrast is the punishment model. The argument for punishment is that all the rights are given to the offender and to the marginal, and the victim—who may have been raped or maimed—has none. In this approach, the best way to reduce present-day and future crime is to keep serious offenders in jail. And there is evidence that backs this up: twenty-five per cent of criminal activity can be reduced by lengthy prison sentences as criminals are taken out of circulation [29].

Underneath this approach is the view that if we do something wrong, we should be punished. We have sinned, whether against our community, ourselves, or our understanding of God. Merely focusing on rehabilitation sends a signal of weakness to potential criminals. It also frustrates police who tire of repeat offenders. Hence, the most extreme form of punishment: the death penalty. While most Western nations have eliminated it—seeing it as State sponsored murder—the USA continues this ancient practice, as do most traditional feudal nations (some of which would have an adulterous woman stoned to death, a sentence generally protested by certain other nations, including the USA).

The punishment model leads to calls for more policing, as, for example, in the war on drugs. Neither one changes the game by moving policing towards prevention.

2.2. Genomics—a new variable?

The rehabilitation and punishment dichotomy, and the role of policing, is being challenged on multiple fronts, especially because of paradigm changes in science and technology. Two are pivotal: genomics and digital technologies.

The genetics revolution, for one, searches for the roots of crime in our DNA [30]; if certain individuals are more inclined towards committing crimes—perhaps because of their risk-taking proclivities—should the state intervene to ensure they do not behave in this way in the future. If so, this requires the mapping of our genes. Intervention could take the form of gene therapy (healing the damaged gene array) or germ line intervention (ensuring the faulty gene is eliminated so that future generations do not inherit that 'fault').

Thus, the science of genetics joins criminology in a search for genetic solutions to the problem of crime. These solutions can be implemented at various points in the "chain" of crime (in vitro vaccination against drug addiction, for example) [31], or even afterwards (in rape cases, judges have already sentenced individuals to chemical castration [32]).

As mapping the human genome becomes cheaper (from a million dollars to $50,000 per genome to $5000 [33][3]—and very soon less than a $1000) every child in wealthy nations will most likely be given a life diagnostic map with the main risks factors identified at birth [34]. While currently the information from genome diagnostics is health focused—disease identification—we can well imagine "tough-on-crime" parliaments suggesting that police use it to identify those at high risk of offending; for example, young males who drive and are prone to alcohol abuse [35].

Already there is initial evidence for the "aggression" or "warrior" gene (referred to as the MAOA gene: monoamine oxidase A) [36]. Biosocial criminologist Kevin Beaver of Florida State University's College of Criminology and Criminal Justice argues that young males who carry the MAOA gene are more likely to join gangs and engage in violence [37].

"While gangs typically have been regarded as a sociological phenomenon, our investigation shows that variants of a specific MAOA gene, known as a 'low-activity 3-repeat allele,' play a significant role." "Previous research has linked low-activity MAOA variants to a wide range of antisocial, even violent, behaviour, but our study confirms that these variants can predict gang membership," says Beaver. "Moreover, we found that variants of this gene could distinguish gang members who were markedly more likely to behave violently and use weapons from members who were less likely to do either" [37].

As the genome becomes cheaper to sequence—becoming a map for all—and as the technology becomes more available—becoming an application (an app) for all—not only will genomics be used after the fact—forensics—but also as part of social policy, as a central consideration in the rehabilitation and punishment debate. If we know that an offender has the genetic variation that the likelihood of criminal behaviour, is more punishment warranted or does it behove society to enhance rehabilitation? Or is genetic modification the next route?

Policing gene futures will likely require police to gain new expertise, far beyond that required for current forensics specialisation. This is especially the case as gene theft begins to rise. That is, as our genetic map becomes our primary source of identity; identity theft will be essentially gene theft. Police will be expected to protect the genetic commons. Will they be able to?

2.3. Digitalisation

Digitalisation is important largely to prevent current and future crimes. With increased video surveillance, poorly lit areas can be made safer. Child nabbing is far less likely as surveillance cameras will be able to capture a picture of the abductor. Over time, bio-digital devices linked to global positioning systems (GPS) can be fitted on most humans so that the capacity to prevent crimes is dramatically increased (and, of course, new types of crime invented). Bio-digital devices are already being used in electronic sentencing. For crimes that do not hurt others—such as many drug crimes—home sentencing is already increasing in prevalence.

Over time, certain parts of the city could be seen as digital no-go areas. A paedophile could be implanted with a device that warns the local prison/police station that he is nearing a primary school or playground. In this way, the new technologies allow us to place the prisoner in limited exile. Instead of being sent far away, his capacity to physically move is digitally limited. This enhances his chances of being rehabilitated as well as reducing his chances of re-offending. Of course, many fear that with these "all seeing eyes" the State could become too powerful, not only intervening in crime, but intervening in private non-criminal behaviour, or, as in *Minority Report*, pre-crime, where there is only the probability of a crime Corruption amongst the police could increase especially in new areas such "hacking" the algorithms that define areas and persons requiring preventive policing The balance between civil liberties and the convenience of the State would certainly shift.

3. Alternative futures of policing in a rapidly changing world

As the world changes, what are the alternative futures of policing? Four scenarios with accompanying core metaphors [38] are offered. These scenarios are developed through the Pearls of Policing International Action Learning Group in workshop settings with police executives as participants.

[3] Personal genome sequencing technology is now faster and cheaper—and fits on a table top.

3.1. Police unable to adapt but no one cares

Even though police are unable to adapt to the rapidly changing world—CHINDIA, genomics, peer-to-peer political economies and digitalisation—funding for policing is not cut. This is not because of any particular strategy used by the police but because of the privileged political space that policing and security occupy.

They provide reliable safety and, private security notwithstanding, tend to have a monopoly. The "thin blue line" is the core narrative, police remain separate from civilians, thinking that they know best, and believing that although citizens need to respect them, they don't need to respect citizens. Writes Ruud Bik, Chief Constable of the National Police Agency, The Netherlands: "Police operate in a manner that is too isolated from their surroundings. The outside world is seen as unfamiliar and unsafe, as it is outside of the "blue brotherhood." A wall is erected around our organisations and outside signals are ignored" [39]. While other aspects of society might change, policing does not. However, in this future, police stay focused on their core values and core missions. They are not distracted by the litany of external environmental and technological change.

However, crises occur when there is a challenge to legitimacy (after a digitally recorded beating by police, or corruption at the level of the commissioner) and trust is lost. Then the value of policing may truly decline.

To ensure that this does not occur, police need to use social media, continue to stay abreast of the latest scientific developments and engage with all stakeholders. They must adapt. As argued by professors Willy Bruggeman, Michael Kempa and Pieter Tops, police are co-producers of safety and security [40] and should not consider themselves the sole players in the security discourse.

3.2. Policing value in question

Because of the global financial crisis (and the perception that police are on the side of powerful state and banking interests) when everything is being cut (education, for example), police also should—as the saying goes—*tighten their belts*.

Because of the belief that the police service is immune to budgetary restrictions, they are generally not ready for cuts. In this future, the value of policing is challenged. Police are seen as out of touch with the realities of most people's lives. While police see themselves as protectors, others consider police as siding with corporate interests ("the 1%") or with a state that increasingly uses violence to maintain law and order. Further, digital natives—those who have grown up in the digital world—see police as luddites, unable to adapt. Using the power of the crowd, the Occupy movement has already invented apps such as "Sukey" to help protestors avoid police kettles [41]. Police, on the other hand, are clumsy with social media and this technology's future-cestors.

To counter this future, police respond by enhancing efficiency through e-policing, more effective management, outsourcing and preventive policing. Strategy increasingly becomes statistics and AI-led with geo-policing becoming a new field. The success of predictive policing allows for cuts to be made to rank and file police numbers.

3.3. Policing fragmented

Because police are unable to adapt to the continuing global financial crisis, climate change, social media, genomics and other circumstances, the core value of policing is challenged by stakeholders. *Fragmentation* occurs—there is little international harmonisation, police forces are continuously on the back foot, unable to respond to changing community expectations. There is a dramatic growth in private policing; indeed, public policing is no longer the norm. Public police are delegitimized, seen as inefficient and as a "boys' club" which, while necessary, does not offer the best value for money. Leaders and markets go elsewhere for solutions. Public police are seen as part of the problem, not part of the solution, especially as they more often than not remain accountable for the mistakes of private police.

To counter this possible future, police need to work with their co-producers of safety and security. They need to lead stakeholders and ensure the security framework and infrastructure stays integrated. Police must challenge jurisdictional politics ("I don't want you in my backyard") and work to harmonise law enforcement procedures.

3.4. Prevention—in policing, in society

As cuts continue, police services survive and some even thrive by taking a preventive whole-of-society-and-government view of safety. Police don't just pick up the pieces downstream but engage in *Upstream Prevention*, by working with city councils and architects to create better urban lighting, for example. They also organise globally and harmonize laws, making it easier to apprehend offenders who cross borders. They practise sustainability (the "green police station" and "green policing") to show their connection with the community. Finally, understanding and appreciating that they are co-producers of safety, police empower and actively engage with citizen groups. Current examples of this include the wiki-crime movement, where citizens use social mapping media to collaboratively develop real time maps of crime [42]. Writes Jens Henrik Jojbjerg, as indicative of this scenario: "In Denmark, we are already in constant dialogue with our own society. We have a system where we go out and ask our clients, our citizens, how they see our service" [43].

Prevention has numerous dimensions. Many are upstream, such as keeping families together, counselling for abused adolescents, and digital surveillance (reducing opportunities for crime). Others focus on negating the next crime cycle by

transforming prisons. Still other strategies include more controversial bioscience interventions, made by identifying high risk individuals. Finally, while police cannot lead in this area, remembering that a more equitable society makes everyone's job easier is also helpful.

Even more radical is the use of soft technologies as part of systemic change. For example, Kiran Bedi, former director general of the Indian Bureau of Police Research and Development has demonstrated that meditation by prisoners reduces violence in prisons and the probability of re-offending. Steven Landau has reported similar success for re-incarceration rates in North Carolina, USA. By reducing recidivism, police effectiveness is enhanced, thought this is not always easy to measure. It is not just through meditation that recidivism can be decreased; restorative justice, wherein the model is to heal the prisoner, victim and community has also shown potential [44–46].

In this future, new, prevention-based metrics are created so that instead of funding going to the most reactive departments, departments that solve tomorrow's problems are rewarded. These metrics tend to be multi-bottom line-oriented: for example, focused on safety, productivity, diversity and sustainability.

Prevention is not just in the area of policing, but is a goal throughout the justice system. Indeed, the number of individuals in prison is seen a signal of societal (mal-)development. The role of police moves from being the "thin blue line" to being "the conductor of a band". The band represents the co-producers of safety—citizens, legislators, private security and others.[4] Police lead the way. They 'stick their necks out' and the public rewards them with more trust and more legitimacy. Ultimately the police become a learning organisation. They do not lose their concern for operations and the practical, but they do move towards strategizing and ultimately towards learning about learning. Instead of reacting to external change, police *create* the safety and security agenda: the conductor reflects on the music being played and the harmony of the various actors (the justice system). Over time, police move to being part of the band, with each component of the justice system taking turns as conductor, perhaps over time moving to a peer-to-peer musical platform. Everyone wins.

Scenarios	Unable to adapt	Policing value in question	Policing fragmented	Prevention—in policing, in society
Systemic drivers	Security first, even though the world is rapidly changing (CHINDIA, digitalisation, genomics, sustainability). Police unwilling to adapt.	Global financial crisis and demographic shifts call the efficacy of policing into question Police funding reduced.	Global financial crisis, climate change, social media and other circumstances lead to de-legitimisation and system fragmentation.	Police not only adapt to a changing world but lead the way in the move towards prevention—upstream innovations. They work with other co-producers of safety.
Core metaphor	Thin blue line is dominant	Tighten their belts	Boys' club	Conductor of the band

4. You should have fixed the roof while the sun was still shining: pearls of policing action learning

For police to negotiate the changing world, they first need to move towards predictive policing. From there, they need to ensure adaptability, not just in terms of operations but strategically through the use of scenarios. But it is more important to envision their desired future, to invent their future, given the boundaries placed on them by civil society, courts and legislatures

Given the practical nature of policing—real-world, project-based—adaptability is best achieved through doing, learning through acts that are futures focused, or through anticipatory action learning [47].

In *futurizing* police, the work of Anita Hazenberg, Professor Will Bruggeman, Cal Corley and the Pearls of Policing project[5] has been most significant [48]. In this work, senior executives meet annually to create and explore alternative policing futures. A focal research question is presented to them by police commissioners; executives then explore this question, In previous years, research questions have included: diversity in policing; the role of social media in policing; policing in tough times and global scenarios [49]. The executives then present back to commissioners, creating an action learning feedback loop. The intent is not just to discern more relevant information about the futures of policing but to create senior global police executives who can adapt to a dramatically changing world.

One example is Peter Slort, a district commander, who is focused on diversity in policing. His main recommendation is to invest in communities [50]. This means real dialogue on safety and security needs, ensuring that police leaders meet with community leaders. Slort even suggests that there needs to be a percentage of community members trained in policing to

[4] I am indebted to the 2012 Pearls of Policing IALG participants for this new metaphor. See: www.pearlsinpolicing.nl. Also to the action and wisdom of Anita Hazenberg, Willie Bruggeman, Cal Corley, Roman Quaedvlieg and Nicole Coallier, among others.

[5] A Dutch-led, international policing think-tank in collaboration with the Royal Canadian Mounted Police, The Australian Federal Police, Europol, The FBI, The Singapore Police and others.

ensure that they feel they are part of the policing process, and not marginalised by it. As globalisation continues, more engagement with "the other" will be increasingly important for communities. As one mosque leader commented regarding a police visit (after the "Danish cartoon" riots of 2008), "You should have fixed the roof while the sun was still shining" [51].

Police executives who engage in the "Pearls in Policing" action learning process find it challenging, as they are used to project- and action-based activities that offer clear conclusions, and to developing strategies based on today's problems, rather than on the big picture, or on the problems of tomorrow—especially those requiring complex adaptive solutions. Such problems are generally not considered actionable and relevant; as well, the need to deal with current issues means there is rarely time to reflect on tomorrow's problems and opportunities. However, through the use of foresight methods such as the "futures triangle", "emerging issues analysis", "causal layered analysis" and "scenarios" [52], police executives have been able to create alternative and preferred futures. "Pearls executives" focus on "big" issues and then reflect on policing futures. Indeed, they wish to move away from reactive policing—the "used future"—towards preventive policing, to adapt to changing futures and creating preferred futures.

Nonetheless, far more than adaption is required. Adaption is often externally focused—on getting strategy right. Getting the inner narrative—the metaphor [53]—right is equally important. In this sense, police organisations need to become "M-organisations"—"morphological organisations"—that are able to explore alternative futures and transform inner stories to realise the emergent future. This means knowing when the traditional vertical structure and the "thin blue line" are appropriate and when a hybrid structure, with the police as "the conductor", or a flatter structure, with police as "one of the band", is best. This requires incredible external and internal flexibility.

Are police up to it? Given the changing external world, if police wish to successfully navigate the future they will have no choice but to transform, internally and externally.

References

[1] S. Inayatullah, The demographic transition: population and underpopulation, in: A.K. Sahoo (Ed.), The Sociology of Aging: A Reader, Rawat Publications, Delhi, 2008, pp. 83–94.
[2] T. Branigan, China faces 'timebomb' of ageing population, The Guardian (20 March 2012). http://www.guardian.co.uk/world/2012/mar/20/china-next-generation-ageing-population (accessed 30.08.12).
[3] R. Wile, How the age of the world will change by 2025, Business Insider (22 June 2012). http://www.businessinsider.com/map-aging-population-2025-2012-6 (accessed 30.08.12).
[4] Population Council http://www.popcouncil.org/projects/101_YouthInIndiaNeedsStudy.asp (accessed 13.09.12).
[5] http://www.wilsoncenter.org/article/youth-bulge-underemployment-raise-risks-civil-conflict (accessed 30.08.12).
[6] http://profit.ndtv.com/news/corporates/article-the-demographic-dividend-can-india-beat-the-world-308731 (accessed 09.09.12).
[7] J. Dator, www.futures.hawaii.edu/dator/courts/crimedontpay.html.
[8] S. Inayatullah, Futures research in the Hawaii judiciary: an Overview, World Future Society Bulletin 17 (6) (1983).
[9] S. Inayatullah, The rights of robot: inclusion, courts and unexpected futures, Journal of Future Studies 6 (2) (2001) 93–102.
[10] http://www.scientificamerican.com/article.cfm?id=humans-marrying-robots (accessed 2.09.12).
[11] http://www.wired.com/wired/archive/14.01/lying.html (accessed 23.02.11).
[12] Also see, E. Robinson, Brain scan lie detection, http://www.policyinnovations.org/ideas/briefings/data/000172 (accessed 23.02.11).
[13] See: D. Weisberg et al., The seductive allure of neuroscience explanations, http://www.yale.edu/cogdevlab/aarticles/The%20Seductive%20Allure.pdf (accessed 23.02.11).
[14] R. Lever, 'Predictive Policing' takes a bit out of crime, Sydney Morning Herald (31 July 2012). http://www.smh.com.au/technology/sci-tech/predictive-policing-takes-bite-out-of-crime-20120731-23bg6.html#ixzz26JDKv6XX (accessed 13.09.12).
[15] http://www.imdb.com/title/tt0113492/ (accessed 29.08.12).
[16] M. Foucault, Discipline and Punish: The Birth of the Prison, Vintage Books, New York, 1979.
[17] S. Inayatullah, J. Fitzgerald, Gene discourses: law, politics, culture, future, Journal of Technological Forecasting and Social Change 52 (2/3) (1996) 161–183.
[18] A. MacAskill, K. Mehrotra, World's greatest power thieves keep 400 millions in the Dark, Bloomberg (1 June 2011) (accessed 13.09.12).
[19] R. Pagnamenta, Climate chief Lord Stern: give up meat to save the planet, The Times. http://www.timesonline.co.uk/tol/news/environment/article6891362.ece (accessed 23.02.11).
[20] J. Vidal, Food shortages could force world into vegetarianism, warn scientists, The Guardian (28 August 2012). http://www.guardian.co.uk/global-development/2012/aug/26/food-shortages-world-vegetarianism?newsfeed=true (accessed 30.08.12).
[21] http://www.cosmosmagazine.com/news/5697/expanding-waistlines-threaten-planet (accessed 22.10.12).
[22] Dawn Islamabad, (19 June 2012), 12.
[23] The News, (13 June 2012), 12.
[24] http://www.guardian.co.uk/society/2010/nov/26/passive-smoking-deaths-who-report (accessed 14.09.12).
[25] D. Murray, "The Slim blue line," The Sunday Mail, page 4 (28 October 2012).
[26] http://www.time.com/time/health/article/0,8599,1711154,00.html (accessed 14.09.12).
[27] http://jezebel.com/5791378/peta-now-comparing-meat-to-child-abuse (accessed 14.09.12).
[28] New report links crime with poverty. Honolulu Advertiser (5 December 1999) A16.
[29] A. Blumstein, J. Wallman (Eds.), The Crime Drop in America, Cambridge University Press, New York, 2000.
[30] K. Beaver, B. Boutwell, Examining the genetic underpinnings to Moffitt's Developmental Taxonomy: a behaviour genetic analysis, Criminology 49 (4) (2011) 923–954.
[31] http://www.guardian.co.uk/science/shortcuts/2012/jun/10/the-future-of-drugs-safe (accessed 14.09.12).
[32] http://floridasentencing.blogspot.com.au/2008/08/chemical-castration-for-rapists.html (accessed 14.09.12).
[33] http://bigthink.com/ideas/26394 (accessed 21.01.11).
[34] http://www.personalhealthmonitor.net/Features.html (accessed 10.01.10).
[35] http://www.medicinenet.com/script/main/art.asp?articlekey=26119. A gene for alcoholism is discovered (accessed 21.01.11).
[36] http://www.sciencedaily.com/releases/2009/01/090121093343.htm (accessed 21.01.11).
[37] http://www.fsu.edu/news/2009/06/05/warrior.gene/ (accessed 21.01.11).
[38] P.H. Thibodeau, L. Boroditsky, Metaphors We Think With: The Role of Metaphor in Reasoning, PLoS ONE 6(2): e16782 doi:10.1371/journal.pone.0016782 (accessed 13.09.12).
[39] E. Becos-Cole, A. Hazenburg (Eds.), Navigating the way ahead: Pearls in policing 2010, Pearls in Policing Secretariat, The Hague, 2010, p. 25.
[40] Speech presented by Dr. Kempa, Singapore at the Pearls of Policing 2012 Commissioners Conference, 10 June 2012.
[41] http://www.wired.co.uk/news/archive/2011-01/31/sukey-protest-app. Accessed 2 September 2012.

[42] WikiCrimes: mapping crimes collaboratively. http://www.wikicrimes.org/main.html;jsessionid=723533B91E30B44EED25CAACCBDA5610. Accessed 30 August 2012.
[43] E. Becos-Cole, A. Hazenburg (Eds.), Navigating the Way Ahead: Pearls in Policing 2010, Pearls in Policing Secretariat, The Hague, 2010, p. 27.
[44] F.T. Cullen, P. Gendreau, From nothing works to what works. Changing professional ideology in the 21st century, The Prison Journal 81 (3) (2001) 313–338.
[45] J. Allard, C. Dolan, P. Cremer (eds.), Reflections of a Canadian Prison Warden: The Visionary Legacy of Ron Wiebe: an Unfinished Conversation. Correctional Service of Canada, 2000. http://www.csc-scc.gc.ca/text/pblct/ronwiebe/2-eng.shtml (accessed 23.02.11).
[46] G. Stephens, Preventing crime: the promising road ahead, The Futurist 33 (9) (1999) 29–34.
[47] S. Inayatullah, Anticipatory action learning: theory and practice, Futures 38 (2006) 656–666.
[48] http://spl.politieacademie.nl/international-pearl-fishers-action-learning-group/tabid/426/Default.aspx (accessed 30.08.12).
[49] http://spl.politieacademie.nl/SubwebEnglish/PearlsinPolicing/InternationalPearlsFishersActionLearningGroup/InternationalPearlFishersActionLearning-Gro/tabid/424/Default.aspx (accessed 14.0912).
[50] http://spl.politieacademie.nl/diversity-policy-is-something-you-simply-do/tabid/788/Default.aspx (accessed 14.0912).
[51] Politieacademie, Wanted: Alert Police Leaders. Annual Book of the School for Police Leadership 2008, Police Academy of The Netherlands, The Hague, 2008, 28.
[52] S. Inayatullah, Six pillars: futures thinking for transforming, Foresight 10 (1) (2008) 4–28.
[53] See, for example, G.L. Kelling, Crime and metaphor: toward a new concept of policing, City Journal Autumn (1991). http://www.city-journal.org/article01.php?aid=1577 (accessed 19.09.12).