Of Crime, Criminology and Marshall McLuhan; towards an inventory of criminological effects[1]

Introduction

"There's more to the picture, than meet the eye, hey, hey, my, my".

Neil Young

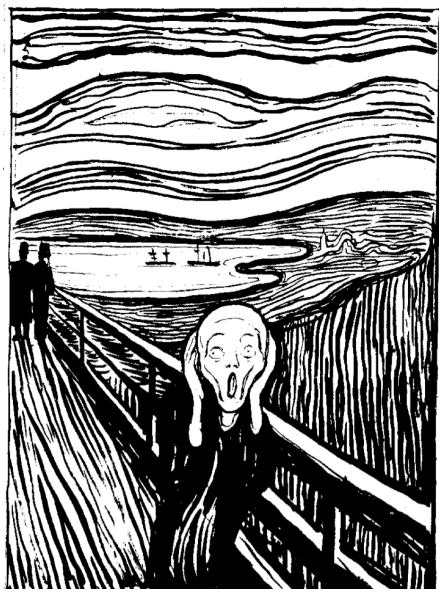
Stéphane Leman-Langlois introduced a fascinating neologism into criminological discourse, *viz.*: 'technocrime' (Leman-Langlois, 2008). The term is a centre-point for a new criminological language game which includes "a set of concepts, practices, frames, and knowledges shaping the ways in which we understand matters having to do with the impact of technology on crime, criminals and our reactions to crime — and vice-versa: since crime, criminals and reactions also transform technology" (p. 1-2). The term is an abstraction that signals an interest in the transformative power of all types of advanced technologies and implies a further lexicon, since the functional reactions to technocrime are the governmental efforts to control it, hence allied terms like 'technosecurity' and 'technopolicing'. Similarly David Wall's book *Cybercrime* (2007) also aimed to promote an understanding of crime in an age where advances in information and communications technologies are propelling wide-scale social change. He posited a 'transformation hypothesis' asking (roughly speaking): when considering any given example of purported 'cybercrime' to what extent is there something fundamentally new resultant from advanced information technologies? There are, Wall tells us, three sorts of answer to this question: computers may change the criminal division of labour; they may give rise to new criminal opportunities; or give rise to new types of crime. As with 'technocrime', the *flip-side* of the concept (if one can be permitted to use a metaphor from a previous technological epoch) is that the 'advanced technologies' enabling cybercrimes are also said to provide the means to regulate and police them.

The new language game is almost incredible. A whole new vocabulary of crime and deviance is arising with terms like botnets, cam-girls, cyberfraud, logic bombs,

[1] In fond memory of Richard V. Ericson, 1948-2007

on-line gambling, hacktivism, phishing, spyware, spoofing, steganography, stripping, trojans, worms, zombie computers and much else. There is also a vocabulary of control-speak, the technocops and cyber-security specialists have cyberpolicing, cyberveillance, cryptography, data-mining, iron boxes, logical security, operating system hardening, polling, the cyber-Samurai, sniffing, sweeping, and three strikes (a jocular criminological reference to the common practice of locking out users who fail to provide a valid password within three attempts).

A nagging doubt looms about the degree to which it is even possible to definitively capture the transformational aspects of computer-aided communications media and the implications for crime. That doubt arises from 'Moore's Law' which states that the amount of information storable on a given amount of silicon will double annually. First posited in 1964 by semiconductor engineer Gordon Moore, co-founder (in 1968) of Intel Corp., the term points more generally at the rapid rate of technological change and, by extension to the social world it entangles. The result is never-ending innovation and transformation. Wall signals awareness of the problem: "So fast has been the rate of change", he confesses "that this book has already been revised considerably during the course of writing" (2007, p. 3). Stuck in *The Guttenberg Galaxy* (McLuhan, 1962), it is hard to keep up with the rapid ongoingness of technological revolution.



Wall's analytical strategy for coping with the consequences of the ongoing and rapid transformations in crime and society related to computer-mediated communications was to write "a thematic history of cybercrime's present" (2007, p. viii), striving to produce a narrative "driven by a progressing thesis" which "maps out and contextualizes the range of cybercrimes" (p. 5). His was a "multiple

discourse approach which recognizes that cybercrime, like ordinary crime, is a form of behaviour that is mediated by technology but also by social and legal values and economic drivers" (pps. 5-6). Not dissimilarly Leman-Langlois also strove to move beyond merely cataloging the new language game, by acknowledging that technology is neither the solution to nor the cause of technocrime. He clearly saw, and sought to unveil, the social (and increasingly technological) construction of crime causation, crime prevention and crime control. There is an irony when Moore's Law is articulated in Guttenberg's Galaxy in the terms of 'typographical man'; because the pace of socio-techno change continues and doubles in speed as it moves, neither Wall nor Leman-Langlois can achieve linguistic closure in typography (by which is meant book writing). This is an observation, not a criticism. What follows is another attempt to articulate in typographical form a theory to explain the relation between humans, technology and crime. Partly it is an attempt to entice the reader further ahead of the game by full use of irony. It aims at a stylistic shift towards an idiom or rhetorical form that is linear, multi-layered and fragmented, that – despite its typographical limitations – extends both itself and the reader beyond the *limen* of limited thought-space. Writing *can* offer a new door to perception.

In this essay I attempt to advance a radical thesis. Drawing on the multiple insights of Marshall McLuhan I will argue that the new media of the so-called 'information age' has changed forever the outside of the inside of our minds with lasting implications for crime, crime definition and crime control that were inconceivable in the bygone age of moveable type. Moreover, I want to argue, like McLuhan, that taken together all of the "extensions of man" have massive psychic and social effects; that every medium "amplifies or accelerates existing processes", introduces a "change of scale or pace or shape or

pattern into human association, affairs, and action", with immeasurable "psychic, and social consequences" (McLuhan, 1994, p. 7).

McLuhan's many memorable aphorisms often turn on the interchangeability of the terms media, medium and technology. For him, a medium is any "extension of ourselves", it is "any new technology" which obviously includes newspapers, radio, television and the like, but also includes the light bulb (ibid. p. 8). The incandescent light bulb (patented in 1880) is an important example for McLuhan, because it is the case of a medium with no content and it gives depth to the aphorism "the medium is the message"; meaning that it is not so much the content of any given medium that revolutionizes dimensions of ourselves, but media themselves. In the case of the light bulb there is no content at all yet this technology has demonstrable and drastic social effects: illuminating the 24 hour city; turning night into day so we can labour longer and harder; making non-stop shopping and the transnational culture of consumerism possible; reducing the average number of hours we sleep hugely thus eroding dreamtime; all with incalculable effects on both the inner (psychological) and outer (sociological) lives of humans. Arguably th e light bulb has as much to do with human social change and planetary eco-destruction as any other media during course of the 20th century, but its ubiquity relegates awareness of its effects to near zero.

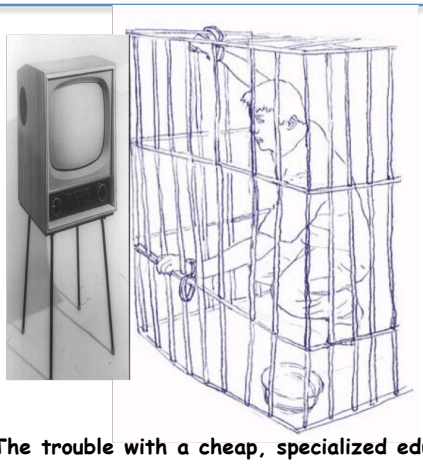
Perhaps by sharing with McLuhan that same feeling of "being uprooted" by the extensions of ourselves, of alienation that goes with lack of direct contact with others, of the same discontent which we find in contemporary philosophy, in art, in fashion, in religious and spiritual life, in literature – perhaps then we can outdistance the future and, by so doing, change it (because deep down there is that uneasy feeling that either 'Man' and the 'Extensions of Man' go, or Mother Earth

goes). But remember, "there is absolutely no inevitability as long as there is a willingness to contemplate what is happening" (McLuhan, 1967, p. 25)

Eco Homo criminalis classicus; how 'criminal man' emerged in the Age of Enlightenment

It is a fact that the contemporary college or university textbook reduces complex ideas to caricature, and this is no less true of criminology texts. Every year countless first year criminology students learn the clichés of criminological history. Beccaria was a humanist who brought free will out of the Dark Ages and into questions of crime and punishment; Lombroso was a positivist whose ideas about 'criminal man' left us all hopelessly determined by our biology; Bentham was a utilitarian whose central idea – the greatest happiness for the greatest number – was not unlike the Vulcan philosophy of Mr. Spock. On to the next theory! The textbook line is a (not quite) linear progression of ideas that undergraduate students dutifully (or perhaps not so dutifully) commit to memory until it is time to forget during the final exam experience (a process of purging not dissimilar to pushing the delete button).

The young today live mythically and in depth. But they encounter instruction in situations organized by means of classified information – subjects are unrelated, they are visually conceived in terms of a blueprint … the student finds no means of involvement for himself and cannot discover how the educational scheme relates to his mythic world of electronically processed data and experience that his clear and direct responses report (McLuhan, 1967, p. 100)



"The trouble with a cheap, specialized education is that you never stop paying for it."

(Marshall McLuhan).

Serious scholars know these textbook clichés to be just that. Serious scholars believe textbook thinking is not just cliché it is thought crime. Serious scholars try to promote deeper thought. For example, in a probing series of essays titled *Inventing Criminology; Essays on the Rise of 'Homo Criminalis',* Piers Beirne carefully documented the noisy conceptual jostling that took place as the *illuminisi*, *philosophes, encyclopédistes,* and modern-day sociologists and social scientists undertook the difficult job of thinking rationally, logically and scientifically about the terrible business of crime and punishment (Beirne, 1993). He showed that the basic language game of academic criminology (still alive, *mutatis mutandis*, in the early 21st century) was developed over about a period of about one hundred years. His book charts the linguistic development in detail, from the publication of Cesare Beccaria's *Dei Delitti e Delle Pene* (Of Crimes and Punishments) in 1764, to the invention of the term 'criminology' itself (by the anthropologist Paul Topinard) in 1889. Revealingly, the cover of Beirne's book is illustrated with the same front-piece that was on Beccaria's original book: it is the figure of Justice portrayed as combining law and wisdom in the features of Minerva goddess of wisdom and science. In the picture, Justice recoils at the executioner's offer of three severed heads and gazes approvingly instead at various instruments of labor, of measurement, and of detention. The original sketch was done by Beccaria himself (Beirne, 1993, p. 61). The terms of criminological discourse were the product, and productive of, other technologies in the age of 'typographical man' and this may clearly be seen in the engraving.

La surveillance de moi?

Since the main focus of this essay is how advances in media alter social and psychic conditions, the ideas traced in Beirne's book are useful to understand because they are the medium through which those vectors of change first occurred. Like

Foucault's well-known contribution to criminological discourse, *Inventing Criminology* begins by describing an historical case of crime, punishment and judicial process. However, unlike *Surveiller et punir: Naissance de la prison*, (Foucault, 1975) – which treats the reader to a graphic description of the brutal public execution in 1757 of Robert-François Damiens after an attempted assassination of the King – Beirne's book begins with the more prosaic story of a domestic tragedy made all the worse by the judicial practices of the still lingering Dark Ages. The narrative revolves around the death by suicide, in 1761, of Marc-Antoine Calas, the eldest son of a successful Huguenot merchant. The family feared to admit the suicide because it was an act guaranteed to bring upon the family great shame and disrepute as the body of the deceased would be dragged naked through the streets and then publically hanged. So a story of murder by an anonymous killer was concocted, which the authorities disbelieved. Not satisfied with the later admission that Marc-Antoine had killed himself, the judges of the Toulouse Parliament convicted Jean Calas of the murder of his son and sentenced him to death in a manner not dissimilar to the one made famous through Foucault's account of Damiens' tortured execution. Jean Calas was subjected to trial by ordeal. So horrible was the process and the outcome, and so well known, that it prompted no less a figure than Voltaire to write about the case, pointing out that: no witnesses were called or orally examined at the trial; no advocate was provided for the accused; the evidence of guilt was entirely circumstantial; the proceedings, though lawful, were gruesome; and that Calas was convicted only by a majority of eight judges with five dissenting. In a short book entitled *Traité sur la tolerance á l'occasion de la mort de Jean Calas*, Voltaire condemned the entire process as dangerous and unjust:

'Fear follows crime and is its punishment.' *Voltaire*

> When it is a question of parricide and subjecting the father of a family to the most horrible punishment, the verdict should be unanimous, because the evidence of such an extraordinary crime should be so obvious as to be clearly perceptible by everyone. In

> such a case the least doubt should suffice to un-nerve the judge responsible for signing the death sentence. The fallibility in our judgment and the deficiencies in our laws are felt every day. How wretched it is when a majority of a single voice causes a citizen to be placed upon the wheel (Beirne, 1993, p. 12-13).

To Enlightenment thinkers and their heirs, the judicial and punishment practices of the previous age were barbaric, unscientific and inhuman. Instead, they appealed to the evidence. Beirne notes that Beccaria's ideas were discussed a "large cross section of educated society" and he lists a veritable *Who's Who* of late 18th century republic of letters (ibid. p. 13). These highly educated persons did not agree about everything, the acceptability of judicial torture or the death penalty, and whether or not suicide was a crime being examples of disputatious matters. There seems to have been more agreement among them about the general need to move the modern criminal law away from Medieval religious concerns (apostasy, heresy, idolatry, and witchcraft, for example) and considerable consensus about what constituted the main categories of crime, viz.: crimes against property, including theft, bankruptcy, counterfeiting, smuggling, and indolence as well as acts that undermined 'public security' (eg. crimes of violence). The whole package was articulated in terms of a social contract, a discursive frame that was widely understood in the 18th century thus, quoting Beccaria:

A witch burning

> This obligation, which reaches from the throne to the hovel and which is equally binding on the greatest and the most wretched of men, means nothing other than that it is in everybody's interest that the contracts useful to the greatest number should be observed. Their violation, even by one person, opens the door to anarchy (ibid. p. 30).

As is well known to readers of Foucault, there grew up during the modern period a replacement discourse to the amorphous penal strategies of the *ancien régime*, one which stressed variously the features of formal and substantive rationality, including

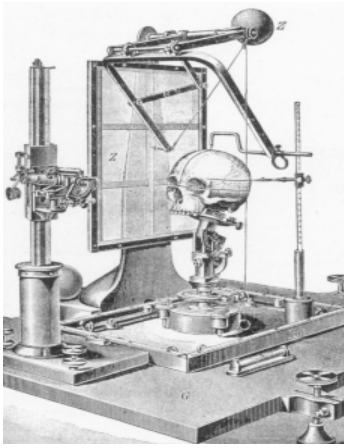
clarity of laws, logical inclusiveness and predictability. When Becarria declared that "rational men" object to the distasteful spectacle of "the muffled, confused groans of poor wretches issuing out of vortices of black smoke – the smoke of human limbs – amid the crackling of charred bones and the sizzling of still palpitating entrails" (ibid. p. 23), he wrote for just about everybody who enjoyed *belles-lettres* and welcomed the new enlightened ways of thinking that blew away the last of the shrouds of the Dark Age when literacy was confined to a few theologians, courtly scribes, and Church and State administrators, and books were rare. His book was a mass produced product from Guttenberg's press in an age of fast growing literacy.[2] It was the first penological *examplia gratia* of typographical civilization.

Portrait of 'Cosette' by Emile Bayard, from the cover the the 1st edition of *Les Misérables* (1862)

The spectrum of the new crime control had at one end the medium of modern police and at the other a network of carceral institutions all inscribed with Enlightenment rationalism and the humanism. Yet on the far side of the modern transformation there remained a lingering hostility and fear of the dangerous classes. These were a large population of poor, semi-proletarian, thieves and rogues sometimes loosely allied with the toiling masses of the proletariat proper and whom the new strategies of crime control failed to 'normalize'. Victor Hugo's novel *Les Misérables* (first published 1862) was "a brilliant and typical literary example of the fearful attitude to crime in general" (ibid. 70). In 1825 the French Ministry of Justice initiated the first national statistical tables on crime, then commenced to publish annually a vast array of statistical indices on crime and disorder. These 'moral statistics' were the subject of analysis of the Belgian social statistician Adolphe Quetelet who articulated the 'social mechanics of crime'. In a fashion similar to Emile Durkheim,

[2] Although it had to be produced in secret at first, because the Inquisition of the Catholic Church 'policed' knowledge and book publication was subject to church censorship.

who turned suicide (that most personal act of psychic self-destruction) into a subject suitable for sociology, Quetelet demonstrated how the science of social statistics could take the criminological temperature of a society. After the typologies had been laid bare and the patterns in the rates of crime and recidivism had been graphed, those statistics (along with the already developed conceptual categories of penology), formed the medium in which subsequent criminological discourse could develop. A 'surface of emergence', to adapt a Foucauldian phrase, was laid. And so, under the influence of (among many others) André-Michel Guerry, Cesare Lombroso, Gabriel Tarde, Cesare Lombroso, Paul Topinard (who coined the term criminology itself) and on into the 20th century when Charles Goring, Havelock Ellis, Sheldon and Eleanor Glueck added to the mix, the lexicon of scientific criminology advanced and *Homo Criminalis* stalked the streets (Hayward et al, 2010).



It is uncertain but likely that none of the early scientific criminologists foresaw that the industrial prison systems that would arise during the course of the 20th century would be helped along by technology invented and patented in the 1880s by Herman Hollerith. The 'punch card system' – backbone of the IBM tabulating machine – provided the circuitry of census taking and governance and with that came the computerization of incarceration. "Invention is the mother of necessities" (McLuhan) and what we create shapes what we think we need and what we are driven to seek. Unless, that is, we can step back and reflect on what these desires point to in us. The history of the 20th century has been written as the simultaneous history of domestic tyranny and foreign war between and within rival nationalisms configured by print-paper-file technocracies. Other technologies, from tinned food to trains, also shaped the possibilities of that age. However, considering the bigger picture, the language game of criminology was not without significance. It certainly rings a bell at any dinner party where people meet to converse. Everybody has an

opinion about crime, but for a criminologist, it's a full time job. How to 'fix' crime and criminals?

Early on in his career McLuhan professed deep suspicions concerning the social scientific view. "Current sociology and social engineering" he wrote in a little essay titled *Footprints in the Sands of Crime* in 1946, "so far from being a source of hope or renewal of impulse must themselves be studied as morbid symptoms". Writing during a period when North America and Europe were coming to terms with an unplanned entrance into the Television Age, he critically observed that "mechanical efforts to tinker the good society into existence have prevailed" (p. 619). It was just about that time that academic criminology's 'young Turks' (Rock, 1994) themselves became suspicious of their own language game.

Critical Criminology and the Television Age

There was, beginning in the 1950s and gathering strength in the 1960s and 1970s, a 'new wave' in academic criminology, when thinkers in the *discipline* began to attribute the possibility of authentic action to the objects of their study (Matza, 1961). McLuhan was among those thinkers of the time who began to popularize the notion that media themselves participate in the creation of cultural events that are mostly mis-understood as being based on logic or sound thinking. The not oft-repeated McLuhanism that "people don't actually read newspapers, they step into them every morning like a hot bath" is not as silly as it may first appear. Remembering that the typical large circulation 'Daily' is written at about the sixth-grade level, his point was that the newspaper does not so much provide the reader with knowledge about the world by presenting challenging and interesting analysis. Rather, it creates an even flow of information which, even if it is most often emotive (operating at the high-end register of anxiety, disgust, envy, fear, loathing, horror, and the rest), is banal. The newspaper creates a strictly controlled atmosphere, which prevents thought by depriving the mind of the oxygen of ideas.

Media-made tunnel vision

The young Turks if criminology who soundly and roundly criticized media-made criminality in the 1960s and 1970s, stepped onto ground that was already prepared. Partly because they tended to think outside the criminological discipline's control perspective (in categories more central to sociology or philosophy) and partly because the promises of modernity laid down by typographical man had been worn thin by the ravages of war, crime and economic depression, thinkers contributing to criminological thought in the middle years of the 20th century – like Willhem Bonger, Clifford Shaw, Edwin Sutherland, Edwin Lemert, and Robert K. Merton – subtly eroded the centralities of controlology in criminology (Hayward, et al, 2010, pps. 60, 66, & 91).

At this time the new media of radio, film entertainments news-reels, and the telephone 'raised the temperature' of a society increasingly based on information flow. MuLuhan explained the temperature metaphor in an interview in *Playboy Magazine*: electronic media do not extend a single human sense or function in the way that mechanical media did previously – 'the wheel an extension of the foot, clothing an extension of the skin, the alphabet an extension of the eye', etc.. Instead, electronic media enhance and externalize the central nervous system thereby speeding up the transformation of all aspects of human social and psychic experience and raising the temperature. These electronic media constitute a boundary-break between the Gutenberg Galaxy and the Global Village, just as literacy was a boundary-break between the oral culture of the tribe and the *logos* of the first Civilizations (McLuhan, 1969).[3]

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[3] On the later point, it is interesting that in the *Phaedrus*, Plato has Socrates relate the myth of the invention of writing wherein the Egyptian god Thoth (inventor of many arts including calculation, arithmetic, geometry and astronomy) extols the virtues of writing to the King of all Egypt saying, in effect, 'it will make Egyptians wiser and give them better memories'. The King replies that writing will do no such thing because the people will not use their memories but instead will trust the

In the mid-20th century movies, both entertainment and film newsreels, expanded the horizons of communications media and brought people out into public. The radio was warmly ensconced in the private living rooms of almost all people of every social class. Public address systems directed the action at holiday camps and concentration camps. The media of the age were combining non-typographical visual and audio channels. The multiplication of media expanded the externalization of mind creating considerable cognitive dissonance. While print media remained ubiquitous (and could even be used to line bird-cages) television rocked the Age. Because of his telegenetic appearance Kennedy rather than Nixon won the 1960 presidential race; because of television the (un-edited) horrors of Vietnam entered popular consciousness sapping the American military-industrial complex's will-to-win; because of the Ed Sullivan show the likes of Elvis Presley, Jerry Lee Lewis and, sometime later, the Beatles made youthful deviance seem fanciful fun instead of somehow sinister. It was just about that time that the 'war on crime', the 'war on drugs' and even 'the war on poverty' were announced with all of the solemnity that TV fanfare could infuse. Small wonder then that the young Turks of criminology began to deconstruct the myths of media-made criminology.

There are any number of authors who surfed the wave of new criminology and whose classic texts stand out as examples of the new Deviancy Theory and the new Critical Criminology. But head and shoulders above them all is Stan Cohen with his wonderful book *Folk Devils and Moral Panics* (originally published in 1972). What is remarkable about the first edition of that text now is the implicit expectation that, after the moral panic was over, the social order would return to 'normal'; that

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external written characters and not remember things themselves. 'Writing is not an aid to memory', the King opined, 'but to reminiscence; it does hold not the truth but only the semblance of truth; readers of writing will appear omniscient but will generally know nothing; they will be tiresome company, having the show of wisdom without the reality'. Sounds like a contemporary *Googler* or *Wikipedist* to me! Plato uses his literary as well as philosophical genius to relate, through the character of Socrates (the historical Socrates never wrote anything that we are aware of), something important about the then relatively new invention of the alphabet. Then, as now, there was the culture shock of dealing with the fundamental power shift created by a new medium. As social order moved from one based entirely on the spoken word to one increasingly based on the written, Plato seems to be saying, there needs to be a recognition that specific technologies are good for specific purposes but that if we cannot theorize about what a given technology is good for, if we cannot think about our basic needs as humans, we will inevitably be pushed around by the technologies we create.

the panic would somehow run its course. The original *Folk Devils* was written under the operating assumptions of Guttenberg's Galaxy, but it was written as part of a confrontation played out in the Television Age. "When faced with a totally new situation, we tend to always attach ourselves to the objects, to the flavor of the most recent past", McLuhan noted around about that time, "we look at the present through a rear view mirror, we march backward into the future" (McLuhan, 1967, pp. 72-73).

What the sensitive antennae of the new critical criminologists and the sociologists of deviance at first picked up in the signals put out through mass media was the hype of moral indignation that played well overtop the old themes of the classical 'moderns' in the police stations and courts and prisons. By the publication of the third edition of *Folk Devils* (on the thirtieth anniversary of the original) a lot of white noise had been eliminated from the signal by a critical mindset more fully reconciled to human conversation suffering the qualitative effects of amplification through electronic media (Cohen, 2002). The end of the century was not a situation of unambiguous normative order versus a counter-cultural one. Things were more sketchy. Get ready for everything! The labeling equation of crime and deviance now involved all kinds of participants not just self-consciously powered moral entrepreneurs and resisters of the moral order (be they self-styled radicals, bohemians, nihilists, or thugs). Deviance was not a straight-forward 'reaction formation' as suggested by the typographical generation of subcultural theorists in the 1950s (perhaps best exemplified by *Albert Cohen*; see Hayward, et al, 2010).

In *Understanding Media* was a revelation itself brought about by the multiplication of communications media. McLuhan referred to the 'multiple squints' and the diverging and almost dissolving perspectives afforded by the 'key-holes of print media' and 'ear-holes of radio' (McLuhan, in Miller, 1971, pp. 16-17). New media made new patterns visible and new possibilities for power. Older ranges of signals were joined by innovations in new media – think of the rise of 'the talkies' during cinema's transition from silent to sound. Those who cared to notice did, and what they noticed was that 'the normal' is subconsciously powered according to patterns made visible and manipulated by public relations media. During the period of the new Criminology's efflorescence the popular sociology of Vance Packard explained contemporary life to the book reading public, as the titles of his works suggest: *Status Seekers*, competed with *Pyramid Climbers* because *Hidden Persuaders* and *Waste Makers*, created a *Nation of Strangers* raising *Our Endangered Children* (Packard). Public relations media are organised according to principles based on an artful combination of psychoanalysis and crowd psychology, a recipe invented by Edward Bernays (nephew of Sigmund Freud) around about the time of the 'war to end all wars'. Public relations were dominant in the power system of the 20th Century and remain so today.

Drawing all this together: towards the end of the 20th century the proliferating symbolism of narcissistic rage that provided the emotional energy driving the transnational culture of consumption was on the up-and-up and moral panics proliferated like wildfire. McLuhan's gnomic aphorism that the 'price of eternal vigilance is indifference' reveals more than a knowing wink when read alongside his quip that 'all advertising advertises advertising'. Because *Understanding Media* involved the realization that even simply trying to report 'the facts' turns out to be

enough to generate concern, anxiety or panic – which sells advertizing space, to be sure. But even more since generations of exposure produce psychic effects: mass learned helplessness. In the same era Vance Packard informed the book reading public that consumer culture was an endless effort to 'keep up with the Joneses', Bob Dylan sang, "something is happening but you don't know what it is, do you Mister Jones?" (quoted in McLuhan, 1967, p. 105).

Then came the time of the home computer and desk-top publishing when the extensions of man were left for 'idiots to guide dummies'.[4] The pace of typography was accelerating but was about to be completely overtaken when the home PC was networked to the global 'generative internet' (Zittrain, 2008). At first the preserve of the elite technocracies at major universities and other institutions of the military-industrial complex, and only later for a mass-general-public of consumers and bloggers, the communications circuits of the new Internet media were always already laden with expectations. Describing the process of ensuing complexity in typographical terms seems farcical: multiple levels of communicative interaction between myriad agents, each with a particular stake in existing social order and each struggling to influence the trajectory and spin of techno-social transformation according to pre-programmed self-interest, encode a global consciousness in computer software and, since all new code is laid on the foundation of old code, the emerging mediated global conscious has an unconscious. Knowledge embedded at deeper archeological layers – (to again adapt a Foucauldian metaphor) continue to

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[4] *For Dummies* is a media franchise based on instructional books providing easy guides for generalists which was launched in 1991 with *DOS for Dummies*, featuring easy explanations about computers. The series later expanded to include such titles as *Youtube for Dummies* and *Dieting for Dummies*. There are others such as the *Idiot's Guide* series with such (possibility related) titles as the *Idiot's Guide to Accessible Website Design,* and the *Idiot's Guide to Dreaming*. The proliferation of these titles blatantly signifies the degradation of print-media as a form of knowledge transmission.

be felt and these include the lingering conceptual effects of crime, policing and punishment. Adding complexity, advances in communications media have been accompanied by simultaneous advances in other media. So, for example, the mass production of metal keys from the beginning of the 19th century created social habits and customs that made possible handcuffs and the entirety of the 'prison industrial complex' (Nils Christie in Hayward, et al, 2010, pp. 168-172). Complex machine keys and locks also made possible the public deposit of cash money in the bank vault and the privacy of the safe-deposit box. And that is why Willie Sutton could say, when asked why he robbed banks: "because that's where the money is".

Crime Control and Criminology in the Age of the Smart Machine

By the beginning of the 21st century it was all too apparent that the complex structures of governance and law were not so much 'managing the crime problem', as the logic encoded by the first wave of modern criminology had intended, but rather was governing *through* crime (Simon, 2002). The State of California was at the cutting edge of this global trend. In the 1970s it had a prison population of less than 30,000. Thirty years later it had topped 170,000. At the beginning of that period in California the ratio of spending for Higher Education and the Prison System was 5-to-1. As the lockdown accelerated these spending ratios approached, and then passed, parity (Parenti, 1999). In the first decade of the new millennium Calfornia's expenditure on prisons surpassed that of secondary education. The global village turned out to be dominated by a *Wall Around the West* (*Andreas and Snyder,* 2000) and *The Rise of American Crimefare State* (Andreas, 1997).

"We are living right on the edge of Apocalypse, more than any other time in human history. All prophecies of the end will appear very strongly – but the end is not supposed to be grim, it is supposed to be very happy" (Marshall McLuhan, quoted in Chrystall, 2007)

Higher education is being crush in California through the process of prisonization. This was not something anticipated by McLuhan, whose taste for Dadaist irony and

generally sunny disposition resonated resoundingly in the Swinging Sixties and Seventies, but not so well two decades after his death on the last day of 1980. What McLuhan missed, but academic criminologists saw, was an alarming trend

> "of treating every imaginable source of harm as a crime … [the] urge to criminalize is rooted in neo-liberal political cultures that are obsessed with uncertainty. We live in uncertain times, with issues of national security (threats of terrorism), social security (benefits system integrity), corporate security (liabilities for harm) and domestic security (crime and disorder) at the top of the political agenda. This politics of uncertainty leads to enormous expenditures on risk assessment and management that ironically reveal the limits of risk-based reasoning and intensify uncertainty. Catastrophic imaginations are fueled, precautionary logics become pervasive, and extreme security measures are invoked in frantic efforts to preempt imagined sources of harm (Ericson, 2007, p. 1).

In the age of the smart machine, when new electronic media (metaphorically speaking) extend directly out from the human nervous system, thinking itself could like gazing into the hot vortex of uncertainty and some criminologists paid a high price for doing so.

In *Policing the Risk Society* the cutting edge of crime control was so-called 'intelligence-led policing' (Haggerty and Ericson, 1995). This might *sound* better than its opposite (stupidity-led policing) but the new strategic, proactive, preemptive and future oriented crime-control model for population governance was wrapped in a 'security-control paradox'. "One of the key anxieties of our age has to do with the pervasive sense of insecurity that exists amidst, and in spite of, the multiplication of tactics and techniques for ensuring security. The irony is that the undeniable increase in surveillance and security practices is only congruent with the multiplication of insecurity and fear. This is the paradox of the security control society and it lies at the heart of the politics of policing surveillance" (Sheptycki, 2007, p. 1-2).

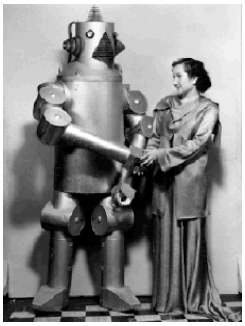
Infomatics is the cutting edge of the new science of information and communications technology (ICT). These media have generated a controversial buzz concerning 'convergence', which refers to previously separate ICT technologies such as voice (telephony features), data (and software applications) and video (streamed via the Internet) interacting synergistically with the innovations of bio-science, artificial intelligence, psycho-pharmacology and robotics. This is very exciting to experts operating in-between 'cyberspace' and 'meatspace' who look at the ways these innovations fundamentally change the way humans create, consume, learn and interact with each other. Every facet of institutional activity and social life (business, government, art, journalism, health, education and all the rest) are radically revolutionized by advances in media at an ever-increasing rate. Infomatics specialists enthuse because this process could be a prelude to and a 'technological singularity' where bio-psychological invention fuses with machine intelligence. "The specialist," McLuhan aptly said, "is one who never makes small mistakes while moving toward the grand fallacy". Creeping technological singularity is visible in the small steps of each innovation in electronic gaming and entertainment. This may ultimately constitute a wholly new, regime of mind, society and technology. Second Life? New social media? Bring on the Borg!

Towards an inventory of criminological effects:

Sex - The idea of ratio was one of McLuhan's most complex concepts. He used the idea of the *sensus communis,* an ancient Aristotelian notion that refers to that part of the psyche which works to bind the inputs of the individual sense organs into a coherent whole, to explain its effects. The unity of the *sensus communis* is something like Kant's transcendental unity of apperception, it is a concept which makes 'the self' possible. The ratio of sensory inputs into the *sensus communis* is susceptible to change depending on the presence of media extensions which amplify

those inputs. For example, in *Understanding Media* McLuhan insists that those extensions which aid the eye freeze the *sensus communis* in a visual mode. It is obvious that advanced electronic media are mostly aimed at the eye, and to a lesser extent the ear, and that such media do not extend to the other three commonly acknowledged senses. Advanced ICT provides an extension of the central nervous system but along only two of five (or possibly more) sense vectors. It thus produces synesthesiaic distortions at both psychic and social levels. This can be seen in the obvious effects that accompany the rise of internet-porn.

Basic human sexuality is a complex interaction in which 'the beast with two backs' is fused out of self and other through interconnections along all of the senses simultaneously. Sex is the almost perfect and total unity of self and other. It is a most human act and that is why it should be free. Sexuality has long been tainted by the medium of money, but at least has retained sensory wholesomeness. Sexuality increasingly expressed via ICT media is not holistic (sic) – the sensory ratio is out of proportion. The visual aspect is the dominant channel, the aural a distant second, while taste, smell and tactile sense responses are nil. That is why internet-sex leaves participants drained but unsatisfied and it explains the increasing presence of sexualized violence as a result of media amplification brought about in stages through technological advance from the photograph to advanced ICT media. With only one circuit (or at best two) to stimulate, such sexual encounters (if one can accurately describe internet-sex and pornographic stimulation as 'an encounter') leave deeper dissatisfaction and each subsequent episode ramps up the visual temperature to achieve the same stimulus effect. In the effort to constantly update the 'money shot' taboos are broken and images become more bizarre, violent, kinky and weird.

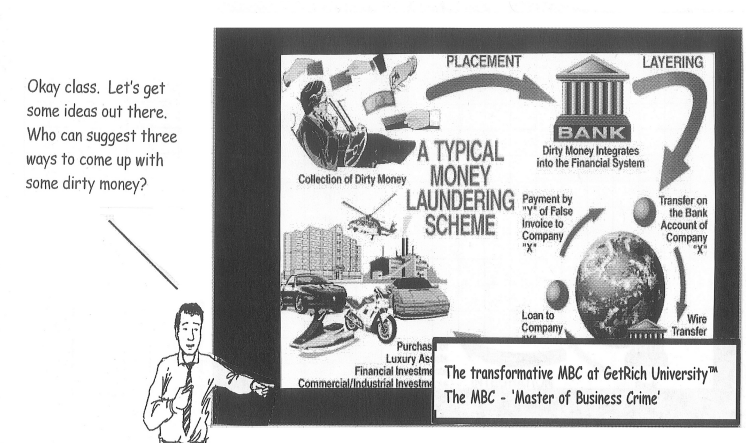


The unveiling of Roxxxy Robot, the world's first interactive sex-robot, took place at the AVN 'Adult' Entertainment Expo, Las Vegas, in January 2010

It is worth noting that, the concept of *sensus communis* is also important in rhetoric where it refers to the whole set of unstated assumptions, prejudices and values an

orator can take for granted when addressing an audience. These are the opinions absorbed into society – the Zeitgeist – rebroadcast by 'the self' without critical consideration and reflection. There is an electronic feedback loop between the *sensus communis* of the inner-self and the Spirit-of-the-Age. With respect to sexuality, advances in media – extensions of Man – disturb the ratio of the *sensus communis* in this dual sense. The amplification cycle alters ratios within individual self-consciousness and within collective consciousness more generally, hence the pornographization of society. Meanwhile, in meatspace, we have to ask the question: when androids dream of electric sheep, will it be possible to rape a robot?[5]

Money - McLuhan was particularly insightful in noticing emerging forms of electronic money when he said 'money is a poor man's credit card'. On March 20, 1950 Willie Sutton got a spot on the 'Top of the Pops' of American *homo criminalis*. The FBI's "Ten Most Wanted list" was a cultural innovation of the early TV age created just the week before. Willie got on the list for robbing banks. He spent many years in prison of course, but once a free man in the 1970s, he ironically parlayed his notoriety as a famous bank robber in a television ad plugging a credit card with photo-ID. His line was: "they call it the 'face card'. Now when I say I'm Willie Sutton, they believe me". The rise of electronic money has reduced most armed robbers to the status of 'beggar bandits'. Real criminal wealth accumulation now comes from the manipulation of electronic money. There is an enormous gulf



[5] *Do Androids Dream of Electric Sheep?* was a science fiction novel published by Philip K. Dick in 1968 and which formed the basis of Ridley Scott's 1982 sci-fi action movie thriller *Blade Runner*.

in the class-divide between white-collar criminals and old fashion armed cash grabbers.

Then too, printed paper money, a product of the Guttenberg press, has also been revolutionized by the advent of new electronic printing technologies. There is no way of knowing how many of the printed US dollars in circulation around the world are counterfeit but, and echoing McLuhan while not quoting him outright, with the proliferation of print money and the magic of electronic finance and banking media, 'currency is a current'. The way to make criminal profits is siphon from the streams of capital flows that circumnavigate the global village. Greed lies at the heart of the politics of envy and is most decidedly not a virtue but, to the *Smartest Guys in the Boiler Room*, 'making money' is wanton frivolity.[6]

In the 1999 novel *Cryptonomicon* a possible future of money is described. It is an imagined history in which electronic currency, backed by an independent and secure golden-horde, forms the basis of a new unit of exchange: digital gold. The key media enabling such a transformation exists. It is technically possible, although probably illegal, to run an encrypted internet-banking media system outside of international-state control. All that is required is trust. Instead, in the actual present there is legal trading of complex financial derivatives. These are money transactions of a highly abstract and mathematically complex kind that do not

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[6] *The Smartest Guys in the Room* refers to the 2001 book and film documentary concerning the Enron scandal, one of the most significant white-collar crimes of the 20th century. *The Boiler Room* is a *noir* drama released in 2000 along a related theme and concerns the antics of characters in a bent financial brokerage firm.

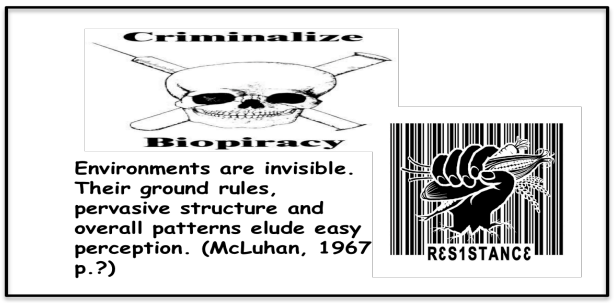
directly involve real trade or other economic activities. It is the magic of numerical modeling, in sum: Casino Capitalism. The global financial system is risky business mining diminishing deposits of trust, so much so that it is difficult to tell the difference between bankers and bank-robbers in the age of electric money.

Rock 'n Roll- In 1999, when his eponymous song 'Bo Diddley' was inducted into the Grammy Hall of Fame as a 'song of lasting historical or qualitative significance' he griped (not without justification) that a generation of musicans (including Buddy Holly, The Rolling Stones, The Who and many others) had made hay with the Bo Diddley beat. He was 'the Originator', a feature player in the transformation of 'the Blues' into *Rock 'n Roll*. The former was an oral tradition with roots sunk in an age before recorded gramophone music and which thrived without benefit of musical notation. The later was also transmitted without musical notation, but it was a pure product of the record machine. In the old tradition, when music could only be passed from person-to-person in direct interaction, it was okay to take a song, 'play it your way' and make it one's own. Pass it on man. When it came to mass-produced recorded music sold for profit the copyright became the thing, and Diddley – a transitional figure between the age of oral Blues and recorded Rock – missed out. *The Stones* and a generation of imitators made large on the Bo Diddley beat of which he hardly saw a cent. When he reached the end of his days on June 2, 2008 this particular *Rock 'n Roll* 'Hall of Famer' could have been vastly wealthy, but he was only modestly rich.

Gramma-phone quenches the thirst of the Rock Aristocracy like no other.

A generation of kids who consume digital music – instantly recordable and transmittable – know all about copyright. Behind the scenes the International Federation of Phonographic Industry (IFPI) has created the concept of 'music piracy' – sharing recorded music is becoming a global crime *par excellence*. The idea that this is intellectual property theft is difficult to grasp. Since Beccaria's day, and probably long before, 'theft' implied denying the thing to the rightful owner:

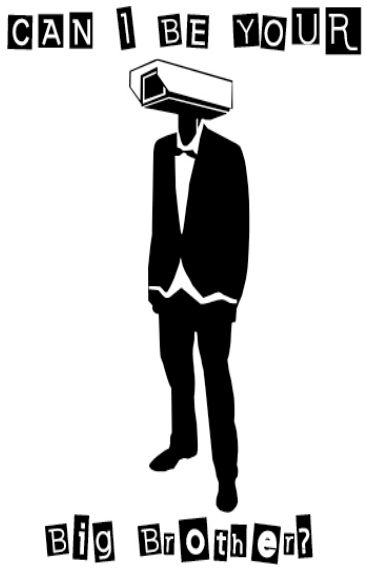
'You took my gold ring! There is only one and now it has been taken from me.' When digital files are shared, there is no such deprivation, since copies proliferate endlessly, and at virtually no cost except the cost of media to bear it. You can steal a device but you can't steal a tune without the code of copyright law. Underclass musicians scrape a living working in shops selling used books and CDs, very few have the electric lawyer 'chops' to successfully become global branded copy-write and hot intellectual property.



The idea of 'intellectual property theft' is a new conceptual genie in the criminological lexicon and radical criminologists might well resuscitate the 19th century socialist maxim: 'property is theft'. Its pernicious nature gathers power from patent law. Historically in order to be granted status as a patented 'thing', the invention had to be 'useful, novel, and non-obvious' and could not be found in nature; a 'mechanical bride' perhaps (McLuhan, 1951). Recently there has been a particular marriage of technological innovation related to genetic engineering, bio-psychological and pharmacological sciences and food sciences. In 1980 the United States Supreme Court (in *Diamond v Chakrabarty*, 447 U.S. 303; 1980), found "anything under the sun that is made by man," including *things* like genetically altered microorganisms, could be patentable subject matter. Gene patenting has unleashed a storm of legal, ethical and economic issues. The isomorphism involved between policing the physical world – meat space – and policing new social spaces has profound social and psychic consequence (Manning, 2000). The phenomenon of bio-prospecting and bio-piracy offer new vectors along which the criminology language game elaborates notions about 'crimes of the powerful'.

Conclusions without endings

This essay has aimed to show that, since the inception of modern discourse about such topics, the development of crime and criminology has been profoundly shaped by available media. But this essay is not a paper. It likely reaches most of its readers as 'portable document file' (pdf.). As such, it is an example of the 'pdf-ization of knowledge proliferation'. This essay will likely circulate as digital information in the computer cloud that has engulfed the globe in a fog of data. It is sometimes helpful to think of the Internet in terms of atmospheric strata through which clouds of code move. On the ground there is the physical infrastructure of this medium: a network of huge 'server farms' located all over the world and networked through satellite communications. These physical machines make possible the analogue *Cyber-Googler* surfing the metaphorical data clouds. In cyberspace there is timelessness, there are no contradictions and no negations, there is just the replacement of external reality with psychic processes. Students, wikipedists and bloggers all soar like electronic flocks of cyber-finches in digitized space where there is no permanent perch. The vastness of the digital realm is more awe-inspiring, mortifying and maddening to would-be cyber-*philosophes* than Borges' Library of Babel (where it is only necessary that a book be possible in order for it to exist and only the impossible is excluded).[7] And in those data clouds, what is impossible? Except to rest.



A whole realm of the world-wide-web is below the radar. Darknet. There are vast fathoms of consumer data that the typical mass-user of the net does not see. Defunct online companies; technical errors and failures; the 'space between' internet

[7] http://jubal.westnet.com/hyperdiscordia/library_of_babel.html

service providers; abandoned addresses once used by the US military or NASA in the earliest days of the internet – all these cyber-places seemingly float in the online atmosphere like derelict and forgotten satellites. The blogosphere is a gigantic domain of (dis)information. The Internet is multi-layered, not unlike this essay. And lest we forget, meanwhile on *This Perfect Day* back down on the server-farm, forces are at work like cults mobilizing to manipulate, or interrupt, the mystic powers of the cyber-sky.[8]

In the first pages of the *Medium is the Massage* (1967), McLuhan quotes the early 20th century English philosopher Alfred North Whitehead, to wit: "The major advances in civilization all but wreck the societies in which they occur". On the last page the same authority is quoted as saying "It is the business of the future to be dangerous". The articulations of criminology since the dawning of the Enlightenment have been dangerous in precisely this way. Criminological ideas have, for better and for worse, played an important part in the tearing down and building up of modern society.

This essay is contained as a pfd. It carries a meme. A meme is a gene. Herein is a genetic code for thought. The code is linked to already existing concepts in a language game consisting of ideas, symbols and practices that can be transmitted from one self to another. This example of the digitized written word is not subject to the supervision of the Department of Information Awareness. This meme is not an isolated virus in an idea lab. It is now on the loose in the global collective consciousness. It is social, combining with others in mutual recognition. Following combination memes evolve. A synthesis occurs which

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[8] *This Perfect Day*, is a science fiction novel by Ira Levin, first published in 1970. In Levin's dystopia, the world is managed by a vast computer called UniComp which keeps all the people in order. All people have mandatory ID bracelets, which interface with the central computer system; they are kept docile, happy, cooperative, satisfied ... and drugged. Everybody does their part helping to maintain the system. The novel ends when the main protagonist blows up the computer.

concentrates, unites and transforms the elements. The memes of crime and criminology have evolved in collective consciousness through centuries of technological innovation, just as often authoring and encoding as being encoded and authored. They are memes stubbornly stuck in collective self-consciousness. If that thought seems despairing and if uncertainty about the future gets to be too much, it would be well to recall that the future remains unknown until it is lived. My ironic conclusion, therefore, is that the technical task for future criminologists will finding ways of 'unplugging' crimino*logical* code.

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