14th BILETA Conference: "CYBERSPACE 1999: Crime, Criminal Justice and the Internet".

Monday, March 29th & Tuesday, March 30th, 1999.
College of Ripon & York St. John, York, England.

The Reflexive Role of Cyberspace in the Shape of Things to Come.

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"In a culture like ours, long accustomed to splitting and dividing all things as a means of control, it is sometimes a bit of a shock to be reminded that, in operational and practical fact, the medium is the message."(*Marshall McLuhan, Understanding Media, Sphere, 1969 at 5*)

1. Abstract

Much of the debate about cyberspace and law has been very embedded in the technology, just as with a new craft when attention focuses naturally on its nature and potential. Alternatively there may be undue concentration, such as a narrow application of the technology to specific issues. It is argued here that a full appreciation of the role of cyberspace in relation to law depends on the identification of purposes, directions and other general forces. As cyberspace and law interact reflexively, the widest range of forces needs to be considered. This article will seek to identify what law will look like, by attempting to interpret the dominant forces which will operate on law and legal systems in the next few decades, acting reflexively with cyberspace and communications technology (CT) in general.

This paper will use the idea of 'shape' as a functional motif to help explain how law might develop and also to aid the discussion of cyberspace, which although requiring some complex considerations, also demands simple ideas to aid explanation and communication. Having sought to gaze into the crystal ball, the paper will locate, and re-iterate the need for, a new preventive paradigm to steer and condition developments in relation to cyberspace and the law. However, it will go further by also seeking to identify how such a model might work in a practical way in practical contexts. It will incorporate some of the ideas from last years paper, to connect the argument. The connection between crime, criminal law and the internet is thus set in a wider field.

2. Methodology

Lawyers do not generally explain or justify their methodology, and indeed legal methodology was only 'discovered' quite recently, by people such as Bodenheimer. So, to avoid any dangers of a lack of theoretical clarity, and in view of the practical contexts proposed, I will utilise as a useful conceptual shorthand, the concepts articulated by George Soros in his recent book (*Soros, The Crisis of Global Capitalism, Little Brown, London, 1998)*. They are not all his ideas, as such, but he has pared them down into a quiver of sharp arrows. Those ideas include the 'open society', 'critical thinking', 'reflexivity', 'indeterminacy' and 'fallibility.'. I would note that Soros does not use 'reflexive' in the difficult way it is used in the 'reflexive law' writings of Teubner et al. In the

shadows flickers the candle of McLuhan and hovering about perhaps the shade of Darcy Thomson (*On Growth and Form, Cambridge University Press, London, 1995*). In relation to the style, shape is used as a bound motif, which is simply a motif, which permeates a piece, but is also in some way functional. The note-form used looks more like a rap than a rhapsody, but it is appropriate for the type of argument used here. The term CT is used as the wider concept in view of the convergence of technology.

3. Clay on the Wheel. Pattern in the Chaos.

Shape, form and pattern are intrinsic to both the animate and the inanimate world. Shape is also a useful, if sometimes over-simplistic, modelling device when explaining complex systems. Could we say that law has a shape, or would it even be useful to do so? If pushed for a simple description, I would argue that legal systems have involved a movement between the circular or cylindrical and the triangular. The circular dimension of law, can be found particularly among indigenous people, when engaged in decision-making. The circle became displaced, for example when colonialism and imperialism ousted indigenous systems, replacing them with a necessarily triangular, hierarchical structure. The feudal system, which is just being dismantled in Scotland, is classically represented by the triangle. The movement away from nations states, (with the post-World War Two) growth of legal communities) has broken through the top of the triangle, and formed a circular crater in its stead. If we look at the basic concepts of the structure of legal systems, we tend to conceive them as triangular or pyramidal. If we look at the work of lawyers, and how they have stayed low in the base of Maslow's hierarchy of needs (*see Maslow, Motivation and Personality, Harper and Row, 1987)* we find a simple way to represent the limitations that the legal profession are manifesting. Three-dimensionally the shape of law may perhaps be compared more with a spiral that contracts and expands, which would accord better with an eastern conception of force form and energy. On a more complex level, we might find that law can be explained by analogy with neural networks or on the basis of fractal mathematics, more of a Pollock than a Vermeer.

Whatever the conclusion, I would argue that law is out of shape, and that the clay on the wheel has wobbled into a distorted form, which needs a firm sense of purpose to

correct. Accepting that law is potentially a positive force, with the power to play a fundamental role in the affairs of humankind, it is worth reminding ourselves of the negative dimensions. I would note the following negative attributes of legal systems which illustrate systems distortion, with sample referencing.

1. Relative Dysfunctionality: Legal systems can range from the sub-optimum to the dysfunctional. Their expense and delay has not matched service improvements in other domains. Simple processes are difficult and inconvenient. The persistence of the feudal system in Scotland, for example, can only surely be rationalised as a failure. The relative dysfunctionality that Shakespeare and Dickens experienced still survives. In a business context it is wasteful *(see for example The Ad Hoc Committee on Business Law, 'Business Courts: Towards a More Efficient Judiciary. The Business Lawyer. Section of American Bar Association, May 1997 at 947).* Even the judiciary are concerned (*see Dyer, Wheels of Justice Turn Very Slow as Judge's Ruling Takes 22 Months, Guardian, October 26, 1998)*. In a criminal context it may be a serious affront to justice.
2. The Recurrence of Miscarriages of Justice: Legal systems have been revealed to possess deep flaws through the recurrence of miscarriages of justice. Those flaws, far from being few and far between, were predicted and predictable. This was so because they were systems failures (*see Walker and Starmer, Justice in Error, Blackstone, London, 1993, Rose, In The Name of the Law: The Collapse of Criminal Justice, Jonathon Cape,London, 1996, Nobles and Schiff, Miscarriages of Justice: A Systems Approach (1995) 58 MLR 293)*. Of course the media has played a significant role in the curing of miscarriages of justice, while conveniently ignoring its role in causing them.

3. The Redundancy and Irrelevancy of Certain Legal Concepts: Basic concepts and constructs, such as jurisdiction have been undermined by CT, but the law has largely lagged behind them. *(see Davison, Geographical Restraints on the Distribution of Copyright Material in the Digital Age: Are the Justified [1996] (E.I.P.R. 477).* This has downstream consequences for national law, such as contract and defamation, thus underlining the reflexive role of CT in relation to the evolution of law itself. In the criminal context, CT has reduced the possibility of operability of a strict law of contempt in national scenarios.
4. The Persistence of Legal Exclusion: There is no great evidence of universal accessibility of justice, even in the most developed countries. Those who are excluded from access to civil justice through expense, are often the people who will also be included, in a negative sense, in the criminal justice processes. *(See for example Hill, Liberty and the Law; Some Seventeenth Century Controversies London, Penguin, 1997).* The Lawrence Inquiry has emphasised that the protection of the criminal law is not as universal as it purports to be in the UK.
5. The Discontent in the Mirror of the Zeitgeist: Lawyers and legal systems are a cause of dissatisfaction at a time when consumer education and expectations are being enhanced. Media exposure of miscarriages, analysis and negative representation reflexively impact on law. In film, although there is the icon of the crusading lawyer, they are more commonly seen to be greedy, dishonest and even crooked. In some cases they are depicted as even worse than gangsters, as the

celebrated lines from 'The Godfather' indicate, and as more recent films such as 'The General' corroborate *(see for example Denver (ed) Legal Reelism; Movies as Legal Texts, University of Illinois Press, Chicago, 1996)*. We would do well to reflect that many more people will have seen these and such films than have read the Universal Declaration of Human Rights.

6. *The Failure of Enforceability:* International law has been toothless, such that the iron fists of military might dictate what happens or does not happen, with the law playing the role of a shadow-puppet. Within legal systems there is variable enforceability *(see for example Vine Deloria Jr, Behind the Trail of Broken Treaties, New York, Delta, 1974).* The treatment of 'white collar' crime illustrates a failure of enforceability. Economic exclusion can also undermine enforceability of law in a wider sense. Again, the media informs observers of the futility of noble, but un-enforced principles, particularly in the role of human rights. This creates a reflexive relationship which leads some to call for the abandonment of legal strategy in favour of other approaches *(see for example Posey and Dutfield, Beyond Intellectual Property: Toward Traditional Resource Rights for Indigenous Peoples and Local Communities, IDRC, Ottawa, 1996).* However responses may include violent ones also, such as that pursued by the Zapatistas in Mexico.
7. The Crisis in the Profession: Although the profession has been slow to admit it, it has been experiencing a crisis. That crisis is related to its role, its failure to reform and adapt, the threat to its livelihood posed by competition and the public dissatisfaction with it (*see for example Interview, James Tunney and Prof. Anthony Clare, Law in the Psychiatrists Chair, (1998) Iona<//*http://www.tay.ac.uk.iona/tunney99a/>).

In general I believe that all the misshapen features are related to a failure to focus on functionality as a goal to be promoted, and adhered to, by lawyers, who have sought in recent history to act separately from the executive wing from government, and so can distance themselves from the machinery of justice, while ironically often adopting a mechanistic approach to law.

4. The Emerging Shape of Law.

Accepting that these negative features of law are there already in mature, liberal democracies, I believe that it is necessary to identify emergent forces which do and will shape law in the future. Reflexively, it can be seen that some of these forces will be reactions to the existing problems, and some of them will be solutions to old problems. CT is intrinsically and reflexively linked to the context of its development. Both CT and law will influence each other. Here I will be optimistic and assume that the impact of CT will be positive. Indeed this assumption is made by many writers in the area, as proponents of their own specialism are wont to do, with all the insight and balance of a zealot. So walking the plank of prediction, with one eye covered, I would argue that the following trends will characterise the principal, contemporary development of law and legal systems, and thus the actual or metaphorical shape of law. They are as follows-

1. Competition Law: This is on the threshold of exerting enormous importance as it begins to be wielded against the legal profession, one of the most formidable and powerful lobby groups around *(see Colegio Oficial de Agentes de la Propriedad Industrial Case IV/33.686)[1995] 5 CMLR 468).* Bill Gates has learned about competition law to his cost. The fine of £70 million E.C.U imposed on Volkswagen last year bu the E.U. indicates the formidable power it possesses.
2. World Trade: The development of world trade, with the new legal construct of the World Trade Organisation (WTO) and the Trade Related Aspects of Intellectual Property (TRIPS), composed of powerful regional legal communities such as the E.U, and United States with dispute settling mechanisms, is beginning to alter the complexion of world affairs (*see for example Palmeter and Mavroidis, The WTO Legal System: Sources of Law (1998) American Journal of International Law, Vol 92 at 398).* Growing legal subjects and concentrations such as CT law, Financial Services law, Indigenous Rights, International Corporate law, Intellectual Property law, Derivatives, and Travel and Tourism are leading to an incipient, integrated world-services law. CT is an important aspect of recent W.T.O disputes (*See World Trade Bulletin. The New Zealand Law Journal. Feb 1999 at 30*). CT facilitates free trade, and liberalisation at a global level will benefit it quicker than most industries. World Trade will lead to the commercial pervasiveness of products, which are critical in technologically facilitating a critical agenda in an open society.
3. Regional Legal Communities: The E.U model, which has spread around the world, has the potential to eradicate and erase many negative, national habits and practices in legal systems, which would be difficult to uproot in a purely national context. CT will be regulated at a regional level, as the national is insufficient and international not feasible. This is leading to new plates of private law, a new ius commune. *(See Smits, A European Private Law as a Mixed Legal System: Towards a Ius Commune through the Free Movement of Legal Rules. 5 M.J.S 1998 at 328)*
4. Consilience: Law is being increasingly scrutinised from without and within, and the de-mystified discipline is most susceptible to conditioning by other disciplines, with the possibility that it becomes a network of disciplines. CT is helping to break down disciplinary boundaries *(In general on consilience see Wilson, Consilience, The Unity of Knowledge, New York, Knopf, 1998).* Oliver Wendell Holmes's view of the study of law necessarily involving forays into and familiarity with other territory adjacent, will come true as a matter of operational necessity. (*See specifically Novick, The Collected Works of Justice Holmes, University of Chicago Press, Chicago, 1995, Vol 3 at 472)*
5. The Return of Universal Jurisdiction: Law is recovering a concept of operable, universal jurisdiction, associated with the development of world trade and environmentalism. This is creating perhaps a new lex mercator mundi. The development of human rights and the emergence of a potential to enforce international criminal law will eventually becomes a

scaffolding which will be linked to world trade. Indigenous rights is growing in parallel to environmental regulation. (See Sunga, *The Emerging System of International Criminal Law: Developments in Codification and Implementation*, *Kluwer: Dordrecht,1997, and Sutherland, Indigenous Peoples, Emerging New Legal Standards for Comprehensive Rights," (1997) 27/1 Environmental Policy and Law 13*).

6. The Growth of Systems Thinking: Apart from legal knowledge engineering, new systems thinking will be introduced and applied to help understand complex systems that make up law. Although this has happened already, the first wave has not been hugely influential. It will come from the biological and natural sciences, neuroscience, genetic engineering, mathematics and computer programming. *(See Waring, Practical Systems Thinking, Oxford, International Thompson Business Press, 1996).*

Thus the contemporary, emerging environment in which law and legal systems operate is often related to CT, and could act usefully on some of the more obvious negative characteristics. Competition law dis-empowers protectionist professional

bodies, and empowers competitors and citizens. World trade de-nationalises power bases which were held together with the glue of national and legal identity. Regional legal communities guarantee free movement of legal services which undermine national, protectionist hegemony. Consilience de-constructs disciplinary isolation. Universal jurisdiction universalises and systems thinking systematises. All of these factors condition the wider environment in which crime, criminal law and the internet operate.

5. Future Directions

What future trends may emerge considering those forces within law and CT and as a result of their relationship? In note form they could be expressed thus-

1. Law as Media, Network or Communication Process: Law becomes increasingly regarded, analysed and understood as a medium or network. CT potential, emerging political structures and law reform are enhanced with the re-construction of legal systems as functioning information and communication networks. Law as an information system brings it closer to concepts that we might find in neuroscience. The rationalisation of law as information helps it deal with the unravelling of DNA sequences and other of the new biological frontiers. Law is also reflexively linked to advances in genetic understanding *(see Jones, In the Blood: God, Genes and Destiny, London, Harper Collins, 1996)*
2. Visual Law: Law becomes an increasingly visual medium, particularly with the need and incentive to educate in mass way. Signatory countries have a duty to teach people about the Universal Declaration. One would imagine that it is only a matter of time before we have an animated feature from Disney about it. Animation will help publicly broadcast law grow, and virtual reality facilitates law learning *(see Rheingold, Virtual Reality, London, Mandarin, 1992)*. The consequent conceptual accessibility helps the de-mystification process, revealing the nakedness of the Emperor and circularly influencing the development of law reform. CCTV has revealed the power of the visual in law.
3. Complementary Law: While orthodox legal systems take time to turn around ‘complementary law’, concentrating on litigation avoidance and mediation prosper, in an analogous way to complementary or alternative medicine *(see for example Nader, No Access to Law: Alternatives to the American Judicial System, Academic, Press, London, 1980).*
4. Creative Law: The new demands on law requires that law becomes regarded as a more creative discipline. As law teachers and international business lawyers are required to be more creative, they attract more creative people to the enterprise, and they assist in the construction of an ethos an environment which is open and in which the necessary critical thinking can emerge to address the dysfunctionalities. ‘Open Society’ discourse helps undermine the citadels of legal privilege.

5. Design of Law: In accordance with the growth of creative lawyers, there will be a greater concentration on early-stage law, as opposed to endgame law, where the opportunity to manoeuvre is severely limited. Quality principles and other complementary ideals such as sustainability also suggest this. Refinement of systems, once designed, in accordance with sound principles becomes the goal thereafter. *(In general see Papanek, Design for the Real World: Human Ecology and Social change, St. Albans, Paladin,1974 and McBride, The Continuing Refinement of Criminal Due Of Process, European Law Review, human Rights Law Bulletin, 1997 at 1).*
6. Mediating Concepts: Law employs new concepts, mainly from sociology, political science and neuroscience and converts them into legal principles, which are necessary for a global construct of competing constituencies. The translation of the concept of 'pluralism', for example, may be the defining one of the next decade. (*See for example the Journal of Legal Pluralism, as well as the Treaty of Amsterdam and Berger and Neuhaus, To Empower the People: The Role of Mediating Structure in Public Policy, AEI Press, Washington,1996).*
7. Strategic Law: Law becomes understood to be a strategic force and not an inert, mechanistic system, as new personnel, and new thinkers within law are able to scale the walls of their own discipline, communicating and engaging in a meaningful way with others. It becomes a practical tool to analyse complex forces *(see Tunney 'The Need for Strategic Awareness of EU law for HTSFs, 6th Annual HTSF Conf, University of Twente , Netherlands).*
8. *Re-communitisation of Law:* Law returns to the role it plays in traditional societies, integrated, organic as part both of a political participatory model and a function of the nature of CT, to complement its necessary modern complexity. *(see Nader, Powerlessness in Zapotec and U.S. Societies, in Fogelson and Adams (ed) Anthropological Studies of Power, Academic Press, New York,1977).*

(9) Operational Reconciliation of Theology and Law: In an integrated communicating, commercial and multicultural world, the greatest issue for law becomes the cohabitation of different religions and the rationalisation of legal systems in such a way as to accommodate competing views of the regulation of the transcendent and mundane, and competing concepts of sacredness *(see for example Tunney, E.U., I. P., Indigenous People and the Digital Age: Intersecting Circles? 1998 [EIPR] 335)*. Theology, (the parent discipline of law) is re-discovered, and intellectual solutions are provided to contexts such as cyberspace, which theological thinking by its nature is more comfortable with.

9. Legal Convergence: Just as technology converges, so does law, and an

integration of universal legal concepts occurs, as the common law or civil law

grew.

In all these scenarios, the changes are fundamentally related to, enabled, or affected by CT. Rather than approaching issues such as crime, criminal law and the internet as separate problems, they must be related to these trends. To think in shape terms, we have to think in terms of networks, nodes, webs, and interconnections. Fractal mathematics may be the key to help us get a conceptual grasp on the developments, and in particular the idea of replication. The idea of recursion of course, brings us back to Vico's theory of circularity beloved of Joyce.

6. The Potential Negative Influence of CT

However the assumption of a positive role of CT in the overall equation of legal development may be over-optimistic or just spurious. Indeed, if the negative tendencies are a signal, then the future is not bright. What negative role could CT have on the development of legal systems? Theoretically there are a few dangers. They could be argued to include the following.

1. The Danger that Access to CT is Exclusive, Elitist or Limited.

   That the power over CT lies in the western world is indisputable. The media and the infrastructure are predominantly creatures of the same cultural ethos that produced the legal systems that have not represented certain other cultural traditions or respected their legal systems, without having to descend into arguments based on cultural relativism. Despite arguments about pervasiveness of the technology as a market necessity, we find that this presumption works well in a developed world scenario, and not where people are starving. Control of the media is a crucial point.

(2) The Danger that CT Personnel Deepen the Existing Fault Lines.

   The jokes about people with anoraks, may hold a grain of truth in the initial stages of the development of the technology. When the technology was complex and demanding at the early stages, then it attracted a certain type of thinker. That type of thinking would tend towards the mathematical, the higher symbolic logical and the mechanistic. If this over-simplified description is true, then the danger of a correspondence with the same dominant tendencies in law is clear. Thus we might expect that CT, from a threatening perspective, might deepen the negative, instead of positively balancing the existing negative. 'Legal Knowledge Engineering' may make princes of those who have a passion for a type of technological truth which is important, but which must be subjugated to other values. Texts such as Yannopoulus may be significant and worthwhile, but one hopes they could be grounded in some simple values, and not solely hyper-technical, high-octane, mechanistic thinking (*see Valente Legal Knowledge Engineering. A Modelling Approach, IOS, Amsterdam, 1995* and *see Yannopoulus, Modelling the Legal Decision Process for Information Technology Applications in Law, Kluwer, Dordrecht, 1998).* Although I did find this latter text useful in introducing 'heuristics', the full meaning of the insight of such logic must be turned on law itself, away from the pseudo-laboratorial law world they are inventing.

(3) The Danger that a Protectionist Profession May Corner The Technology.

   That the hegemony of the profession could be threatened by the technology is clear. However it would be folly for the opponents of the negative aspects of professions, i.e. the reactionary, protectionist, dysfunctional and conservative to write them off yet. They are still formidable monoliths of power that contain the possibilities of re-positioning themselves to adjust to the new challenges, should they be sufficiently united and determined to pursue a particular strategy. Thus for example, databases such as LEXIS could be used in such a way that access and non-access becomes a relevant defining boundary. Or to defend oneself in Court contexts, utilising the latest technology becomes too expensive, or requires access to specialist legal-psychologists to gain credible interpretation. Alternatively indeed the technology could be cornered by the academic legal world, who would if they could.

(4) The Danger that Enabling Technology is Cultural Specific.

   Technology produced for CT is likely to reflect the values and cultural context of the producers. Again, the underlying worldview will more than likely not represent large swathes of the world. Thus cultural values are imposed, and where there is a divided world, they will

divide further.

(5) The Danger of Law-CT Narcissism.

We should remind ourselves of McLuhan's use of the myth of Narcissus (*Chapter 4 above, The Gadget Lover: Narcissus as Narcosis*), while thinking perhaps of Dali's *Metamorphosis of Narcissus*, as we contemplate lawyers gazing into their reflection in a cyberstream, and one might be tempted to exclaim, as you may hear in County Mayo, God help us! The vanity and power of both may make a terrible marriage.

(6) Reforms May Fail.

If CT is applied without addressing the failure of functionality in law, then reform will fail, where it pins undue hope on CT acting in a vacuum. Law reform must both address the underlying problems and the particular issues. If not, then there will be a coalition of Luddite-Outlaws. Dissatisfaction with Woolf is emerging before it has begun (*See for example, Ten Questions About the Woolf Reforms. New Law Journal, Vol. 49, 280).* Susskind's thesis is unduly narrow and linear and fails to understand the wider context of forces *(The Future of Law: Facing the Challenges of IT, Oxford, Clarendon, 1996).*

7. The Need for Prophylaxis

If both the existence of the perils and possibilities are accepted, then the need to seek the latter and avoid the former are clear. That can not occur by chance, but only by design. Without a plan, we need to invent one. A paradigm needs to be reflexively related to past, present and problems posed by both CT and law. Again, I would suggest that it must be one which is preventive or prophylactic, and the obvious desirability of such a paradigm should not preclude or obscure its relevance. Every folk logic reflects it in its sayings such as 'a stitch in time..', 'no use closing the door after the horse has bolted…etc. Anyone taking inoculations, vaccinations or prophylactic pills will understand its logic.

Prophylaxis is needed both in relation to the legal systems and legal services and to the particular application and general context of CT systems and services. If CT is applied without such a paradigm, it will exacerbate the problems in legal systems. If law does not develop such a paradigm, then the negative tendencies will prevail.

We do have examples of such principles within law itself such as the precautionary principle *(see Freestone and Hey, The Precautionary Principle and International Law. The Challenge of Implementation, Kluwer, Deventer, 1996).* Law did have such goals in former times. Thus Nader tells us that Zapotec systems for example were problem-solving, educative, preventive, deterrent and simple. A lawyer might say, but that's what we do! However that would only be partially true. The concept of Total Quality Management could provide a simple theoretical but practical base for such a theory (*see for example Beckford, Quality: A Critical Introduction, London, Routledge,1998).* Any meaningful discussion of quality and quality principles and systems necessarily starts off with a preventive paradigm, on the basis that it is always cheaper to prevent problems occurring, than to solve them afterwards. Indeed law comes into quality graphs as an example of the most uneconomic and counter-qualitative solution to a problem. Thus if a good is defective, it is always cheaper to take it out of the process earlier, and more expensive the longer it is left. Yet the quality debates about law have not focused on any academic or management discipline notion of quality, but some meaningless rag-bag of concepts that serve short-term goals. While quality does not have to be taught, (although there is no reason why not except for the lack of familiarity among lawyers), the

legal system should inherently embrace it in its structures, processes and operations. The question is how it could be adopted. As the UK becomes a more litigious society, catching the US and Irish diseases, then economics will demand greater procedural and conceptual shields.

8. A Few Practical Points

(1) Definition: It could be defined as the attempt to design, resource and operate systems which accommodate and anticipate the maximum possibilities, involving in particular a preparation and planning at the preliminary stages in a process, to minimise and prevent the occurrence of systems failures. People are placed predominantly at the starting position in a process, and are helped to understand ex ante, exploring the range of their potential to contribute in an holistic way. Such a paradigm would aim to prepare, prevent, predicate, predict, plan and be prophylactic.

(2) Legal Education: Lawyers are trained with cases which illustrate the breaking down of relationships and an inability to achieve reconciliation. Negative examples are the food of legal minds. Instead of forcing them to learn that these are end-of the line, relationship-failure cases, the law students in encouraged to see every relationship as an opportunity for opposition, mistrust and confrontation. Students dentists may train with dead pigs heads. But being able to deal with these is not equivalent to dealing with a live human being. The same is applicable to law students. Teachers accept the flotsam and jetsam of human relationships as a coherent whole, without question, and seek to reproduce end-of-the-line thinkers.

Law school curricula are hugely irrelevant. While new world structures are crying out for knowledgeable inputs, the law schools persist in their slumbers with the narcotic potions they have supped from the professions. A prophylactic paradigm would induce us to embrace innovative modules, perhaps developing them for internationally shared modules, deliverable by distance learning modes. They could be made accessible to those that will be marginalised by the increasing high walls of expense around access to quality legal education. Skills necessary to new world scenarios must be taught (see *Knoll, Negotiating and Drafting Distribution Agency and Representative Agreements, (1987) 21 International Law 939)*

(3) Litigation Avoidance. Lawyers could seek an earlier intervention in the process, at an earlier stage of production, not as a harbinger of doom, but as professionals willing to offer advice in a decisive and holistic and comprehensive way. Furthermore, they can help apply anti-litigation protection systems to protect businesses in a proactive way, rather than a reactive one, utilising CT in particular. No amount of clever argument by distinguished counsel save a defender/defendant in a delict or tort case, from the threat of a spurious claim, while a comprehensive information recording system may. Likewise, poor record keeping in employment cases may leave an employer vulnerable, no matter how sound in law the case appears to be. In the dynamic international business sector as Knoll argues, commercial, cultural and political skills are fundamentally important. They have little place in law courses yet. Law schools have to think proactively and help their students do so too. *(See for example, Knoll, Structuring International Business Projects: The Role of the International Business Lawyer, Australian Law Journal Vol,79, at 125)*

(4) Re-definition of Role: Applying a prophylactic perspective to the positioning of the legal professional could simply solve the directional confusion within the profession. Certain strategies are doomed to fail, and others will flourish. While the professions are

carping in a protectionist way about the difficulties of earning a livelihood, they are turning their backs on the possibility of moving into higher order relationships, which are not in the basic human needs domain, allowing other professional to colonise them.

(5) Legal Systems Reform: The attempts to make litigation more efficient and cost-effective are doomed to fail, if the ethos of dispute avoidance is not encouraged in a deeper way. It is like merely presenting a cheaper more effective surgical infrastructure to deal with widespread preventable disease, without regard to the causative factors from a wider perspective. Thus law reform must be linked to a commitment to a preventive paradigm.

1. Legal Rules: The design of legislation, and the benefits of values such as clarity, comprehensibility and flexibility are clearer when viewed from a prophylactic standpoint. The luxury of languid amendment of complex and burdensome bodies of regulation should not be available. The arguments about codification and consolidation are questions that are relatively easily answered if the paradigm of prevention is pursued.

(7) CT Based Law Products and Services: CT based products should ideally cater for existing defects in legal systems and be directed against preventing them, rather than mere, meandering technological opportunism.

(8) Avoidance of Cul-de-Sacs: A prophylactic paradigm may provide candles to illuminate the darkness of misleading paths. Law reform will have a sounder theoretical basis, consistent with other ideas such as sustainability. CT, of its nature invites the resuscitation of jurimetrics. Whatever merits such studies may have, they will be negative if built on the rotten supports which prop up the present legal construct.

(9) The Development of Compliance Teaching and Practice: As undertakings see for example, that they may be fined as Volkswagen were (£70 million), they begin to seek enhanced preventive mechanisms, and in particular the expansion of compliance schemes.

(10) To Develop New Paradigms: If we do not possess any paradigm or articulated

principles and values which bind the work we do, then the basis of other theories becomes difficult to establish. A prophylactic paradigm would help provide some direction at least for the construction of a paradigm necessary to rationalise crime, criminal law and the internet.

1. To Apply Existing Ones: There are paradigms which are being applied

within law, but arguably in an inappropriate way. Ironically for example, we see that the law teaching quality assessments pay scant regards to the theoretical

foundation of the term ‘quality’ which is a term of art. Indeed the quality

assessment exercises, bear many characteristics that management accounting

frown upon. Furthermore the lack of understanding of the concept of quality is

manifested in the persistence of counter-qualitative systems in law, with no

recognition of their existence or attempt to re-engineer them, through the

system of education. legal

9. Summary.

Thus it has been argued that if we examine and reflect on the idea of shape, we can use it as a metaphorical tool to help look at legal systems. Looking at the shape of legal systems, we encounter a relatively severe degree of dis-figuration. This present lack of form, is related to systems failure. The advent of CT promises to address and correct some of these issues. CT and law are linked reflexively in this. However because of that reflexive relationship, it could work negatively such that the advent of CT represents a weight on the side of the defects side of the balance. Accordingly, in view of the potential threat and opportunity, the time is ripe for a paradigm of prevention, which can act as a value to inform the directions we take CT and law. A preventive paradigm could address concerns of the professional, the student, the educator and the citizen.

10. Conclusion.

Sometimes we need simple thinking to find solutions. Often we may go back to insight and more traditional modes of thinking to unravel and reveal. Of course we do not go back but around. The journeys into the higher mathematical domains may bring us to a zone which may resemble the mystical experience. Fractal insight and thinking is often simple thinking. Law must be seen to be a thinkers subject and not a mechanistic, grinding enterprise. As a genuine 'Tao of Law' is written, *(based on the Tao Te Ching see Richard Wilhelm Edition, London, Penguin,1985)* or law as performance and dance emerges, it may be that many outside law, begin to comprehend and become articulate about law in a deep sense. It behoves its constituency to engage and gaze over a few cliffs, if not to jump off some.

"This fact, characteristic of all media, means that the "content" of any medium is always another medium."*(Marshall McLuhan, see above at 15-16)*