531

INTER-GOVERNMENTAL BUREAU FOR INFORMATICS

SECOND WORLD CONFERENCE ON TRANSBORDER DATA FLOW POLICII

ROME, ITALY, 26 JUNE 1984

THE MORNING STAR OF INFORMATICS LAW AND THE NEED FOR A GREATER SENSE OF URGENCY

June 1984

INTER-GOVERNMENTAL BUREAU FOR INFORMATICS

SECOND WORLD CONFERENCE ON TRANSBORDER DATA FLOW POLICIES

ROME, ITALY, 26 JUNE 1984

THE MORNING STAR OF INFORMATICS LAW AND THE NEED FOR A GREATER SENSE OF URGENCY

The Honourable Justice MD Kirby CMG *
Chairman of the Australian Law Reform Commission
Judge of the Federal Court of Australia
Formerly, Chairman OECD Expert Group
on Transborder Data Barriers and the Protection of Privacy

THE RIDDLE OF TBDF

In Dante's Inferno[1], soothsayers and other futurologists are consigned to Malebolge, the eighth of nine circles of the Inferno. They are lumped together with pimps, flatterers, hypocrites, those who cause divisions and liars. Their punishment is to have their heads reversed. Being deprived of the power to see before them, they are constrained to walk backwards for eternity.

Fearful, lest the spirit of Dante inflict such a dread punishment on me, I propose to avoid speculation about the future. When it comes to addressing the social and legal concerns presented to our countries by transborder data flows (TBDF), there is more than enough of a challenge in the present. A lawyer of my generation learned public international law as an exotic and usually optional subject at the University. It was endured with a xenophobic conviction that it would never disturb the comfortable and familiar tasks of applying municipal or domestic law. Suddenly things are changing. Technology is the agent of change. It is the fate of our generation to live at a moment of history when three remarkable technologies have appeared at once. Each of them adds to the urgency of the development of rules of international law. I refer, of course, to informatics, biotechnology and nuclear fission.

- Informatics promotes the need for international law by reason of its pervasive and universal technology and the speed with which computers, satellites, laser and optic technology and so on, are being accepted throughout the world. The technology shows instantaneous and international contempt for man-made jurisdictional borders.
- Biotechnology promotes the need for international regulation because of the potential it offers for the manipulation of basic life forms, including in humans. In vitro fertilisation is with us. Just around the corner is cloning of the human species and genetic engineering that could, if left unregulated, affect the very shape and size of our species. When I left Australia, much attention was focused on the legal status of two frozen embryos in a Melbourne hospital produced by a millionaire Californian couple killed in a plane crash in Chile. Do the embryos inherit the estate? Do they have a right to life?
- On nuclear fission I need say nothing. Unless we can find effective international regulation of this most destructive potential, we need not worry too much about our other problems.

So this is the age of mature science and technology. The President of the National Academy of Sciences of the United States, Mr. Frank Press, said last month that the major issues in relations between countries in the next decade will involve technology.[2] It is now being seen with greater clarity that the emerging technologies of genetics, computers, telecommunications and so on are straining relations amongst countries in commerce, defence, and culture, but also in the law.

There are many things that are unclear and uncertain about TBDF. But one thing is sure. It is that the phenomenon is growing rapidly. In Western Europe about ten per cent of all data traffic is already international. This is in sharp contrast to telephone calls of which only one per cent are between different countries.[3] Just about every possible international agency has got in on the act concerning some aspect or other of TBDF policy. In addition to the Inter-Governmental Bureau for Informatics (IBI), the following are simply the chief international organisations that are examining aspects of what I will call the sociology of informatics:

- The Organisation for Economic Co-operation and Development (OECD)
- The International Telecommunications Union (ITU)
- The Consultative Committee In Telephone and Telegraph (CCITT)
- The United Nations Educational, Scientific and Cultural Organisation (UNESCO)
- The United Nations Centre for Transnational Corporations (UNCTC)
- The United Nations Commission on International Trade Law (UNCITRAL)
- The Economic Commission for Europe (ECE)

. The United Nations Conference on Trade and Development (UNCTAD)
. The Universal Postal Union (UPU)
. The Council of Europe (CoE)
. The Commission of the European Communities (CEC), and so on.

A most useful analysis of the involvement of these organisations is contained in Transnational Data Report[4], indispensable reading for everyone interested in this field.

Despite this proliferation of overlapping international bureaucracies examining different facets of the diamond of TBDF, the story is not entirely one of needless duplication:

. Common personnel. First, there is some overlap in the personalities involved, as a casual glance at the participants in this and earlier international conferences will show.
. Institutional co-operation. Secondly, as Dr Frits Hondius, of the Council of Europe has observed, there is growing institutional co-operation between world bodies examining aspects of informatics policy.[5]
. Early achievements. Thirdly, international instruments responding to the social and legal problems posed by TBDF are beginning to appear. Nor are these without influence. They influence each other. And they influence municipal law and practice. The one with which I am most familiar is the resolution of the Council of the OECD on Transborder Data Barriers and the Protection of Privacy.[6] This document was in turn influenced by earlier developments in Scandinavian law, in a Declaration of the Nordic Council and a draft convention of the Council of Europe. Through the intercontinental membership of the OECD, the principles of law and regulation dealing with one aspect of TBDF (the tension between privacy and free flow of information) was exported from Europe for consideration in distant countries such as Japan, Australia and New Zealand. This has already begun to have their effect. In Australia, the Government is examining, at a high level, a report by the Law Reform Commission urging the adoption of Federal laws for the protection of individual privacy. The Attorney-General of Australia announced last week that legislation would shortly be introduced.[7] In the draft legislation proposed in the Australian Law Reform Commission's report, an annexure sets out basic rules for privacy in the use of personal information flows. This is derived, almost verbatim from OECD Guidelines. Should this approach be adopted by the Australian Government and Parliament, it will instance what I take to be a new phenomenon in law making. This is the direct persuasive influence on domestic law of non-coercive instruments adopted in the form of guidelines by

international agencies, themselves working on a consensus principle, and steered in the right direction by multi-disciplinary experts from different countries.

NOW THE BAD NEWS

I have given you the good news. Some progress is being made to meet some of the social challenges of informatics. Now the bad news. Unfortunately the catalogue of problems is long and daunting. It includes

- The pace of problems. The technology is presenting its problem to our home countries and the international community too quickly. No sooner do we solve a problem, but many more present themselves.
- Attitudinal barriers. The institutions national and international, for reacting to this pace and complexity of change are, frankly, quite inadequate. One of the basic difficulties is that law and social policy tends to be made by those whose intellectual training was in disciplines which do not include mastery of the intricacies of mathematics, science and the new technology. This problem is compounded by the typical incompetence or indifference of scientists in communication, and a frequent lack of even a perception of or interest in the social implications of what they are doing. I do not mean to stereotype. But there is a certain fatalism about the sociology of informatics. Sometimes this is spurred on by the failure to see and understand the problems or by a conviction that all will be well in the end. There is also the commitment of many influential people in First World countries to the intellectual notion of the desirability of promoting a free flow of information between countries as far as possible. This is a notion, that, happily for such countries, tends often to coincide with their economic interests.
- Talk not action. The third problem must be stated with complete candour. Perhaps it follows from the first two. It is that in this field of endeavour, as in so many in our home countries, there are too many Chiefs and not enough Indians. After a decade of talking about TBDF and its international social implications, what have we actually achieved? True it is, much has been achieved technologically. It was not so long ago that a British Post Office Corporation engineer described the inability to attach CCITT standard modems to the United States domestic telephone network as the biggest single barrier to transborder data flows. As a result of the development of packet switching networks, encouraged from the outset by the United States Government, and later by American commercial enterprise, this barrier can now be circumvented. There are still many technological impediments. But these are being reduced. Yet the fact remains that legal and social achievements have been pathetically few. In terms of addressing sensitive

multi jurisdictional social problems, what can the international community boast of save for the efforts on privacy protection? It may well be that this was the proper first task. But the achievement of the Council of Europe Convention, or Resolutions in the European Communities and the OECD privacy guidelines are scarcely a reason for self-congratulatory statements and retirement from the tasks of active development, of relevant public international rules. Many remaining problems have been identified now for five to ten years. I must acknowledge that they are complicated and difficult problems. This is inescapable. Transborder data flows challenge one of the most fundamental features of our municipal legal systems. They tend by their very nature, to undermine the principle of municipal sovereignty. Furthermore the guidelines on privacy, although in operation or influential in many First World countries, have not yet been seriously discussed with, let alone adopted by, Second and Third World nations.

In short, many of the social and legal problems posed by the accelerating growth of TBDF have now been identified for some time. The list is already long. New problems are constantly being added to it. Plenty of agencies are studying particular aspects of the problems. But most of them have a self-image that seems to deny a conceptual involvement with the whole range of issues. Yet somebody should be looking at and fitting the pieces of informatics law together, as in a mosaic, for the guidance of domestic policy and law. At the last IBI World Conference on this issue, Dr. Gerhard Stadler (Austria), complained about the lack of precise definition of TBDF itself and of the problems that it was spawning.[8] He also criticized the lack of adequate concern about identifying areas of common interest between developed and developing countries and the lack of progress in solving legal questions. In brief, there has been too much talk. Not enough action. What has happened since Dr Stadler's challenging address to the last IBI Conference? True it is, the European Convention on Privacy has been concluded. The OECD Guidelines on Privacy have been adopted and put to good use in municipal law and policy. But it must, in all frankness, be said that little else has been achieved in the move towards an international regime within which the TBDF phenomenon will continue to grow. It will be a great misfortune, bordering on the scandalous misuse of travel votes if we depart from Rome, after this second World Conference, without at least some practical efforts, however modest, towards refining and addressing the problems identified by Dr. Stadler aand others. They are still with us.

THE IMPEDIMENTS

To gain progress in responding to the legal difficulties posed by TBDF, we must understand the impediments to action and settle upon a 'shopping list' of issues that require priority international attention. I do not underestimate the difficulty either of finding an appropriate world forum or of agreeing on priorities:

> First there is the relatively primitive state of effective international law generally and the limited capacity of new international institutions to deliver, if not international law, at least simple guidelines and drafts that will encourage, facilitate and promote compatible municipal laws.
>
> Secondly, we must face squarely the problems of different languages, of different legal systems, of different legal categories and classifications that make the search for compatibility in legal regimes most difficult. Even if we leave aside differing philosophies as to the purpose and future of law, overlook disputes as to the social function of law, bypass fundamental differences in legal institutions and procedures, we still find it hard to define agreed and common principles of substantive law.

This lastmentioned difficulty should not be a source of surprise. It originates partly from quite important differences in economic, strategic and cultural perspectives of problems such as TBDF. These differing perspectives inevitably affect national approaches to the regulation of TBDF. At the first IBI World Conference on TBDF policies, Mr. Landa (Cuba) evidenced less than wholehearted enthusiasm for all of the incipient consequences of TBDF.[9] He said that acceptance of the principle of free flow of information would tend to advantage international monopolies. It would also contribute to encouraging and increasing a state of dependence of developing countries. He urged that developing countries, independently of international efforts, should try to 'establish legal regulation allowing them to control data flows within their frontiers'. This kind of demand for national sovereignty in the new context of pervasive international information technology has produced at least three reactions:

- Restrictions. In some developing countries there has been an endeavour to practise what Mr Landa preached. Brazil, for example, has introduced detailed regulations in an effort to assert national regulation of TBDF.[10]

. Resignation. A second reaction might be described as being more in sorrow than in anger. Mr. Alain Madec of France has predicted an 'unavoidable' growth of transnational data flows, a consequential enhancement of the power and lack of accountability of multinational corporations and the 'long term death of national policies with the risk of pauperisation of medium sized nations'.[11]

. Free flow. Thirdly, there are the free flow protagonists. It is now well recognised that no country adopts a totally 'free flow' philosophy in its law. At the Transborder Data Flow International Law Symposium held in Toronto in October 1983, one participant even called 'free flow' a myth.[12] He pointed out that there were already many rules in every jurisdiction against the movement of ideas, films, papers, documents and other intellectual material across borders. Just the same, there are very active and vocal proponents of the relative enhancement of free flows. They are keenly concerned about the dangers, as they see it, of economic protectionism.[13] They are fearful that such protectionism will be 'dressed up' in the guise of human rights issues : ostensibly to deal with values such as privacy, vulnerability and so on, but in truth to protect and encourage home informatics industry. The chief proponents of 'free flows' tends to be in the United States of America. Nurtured in the philosophy of the First Amendment of the United States Constitution, which guarantees free speech and a free press, Americans tend to be in the vanguard of those urging as little interference as possible in the free flow of data across borders. It is no disrespect to say that this doubtless sincere philosophical conviction also happens, providentially, to accord with the economic interests of the United States. Happy are the countries whose social philosophy and economic interests so neatly coincide.

At an OECD symposium in which I participated in December 1983 in London, spokesmen for business interests appeared greatly concerned that the talk about developing international laws might result in harmful interference in free flows of data. This, for example, was the view expressed for BIAC. Yet, at the same time, it was claimed that new legal protections for intellectual property of informatics were needed. An endeavour was made to define what was needed and what was not. It was said that 'rules of the road' were needed so that in TBDF basic issues of a mechanical or ancillary kind could be attended to. A spokesman for a large multinational corporation put it in these terms. It was 'regulations' that were needed but not direct or indirect 'restrictions' on TBDF. Putting it bluntly, 'regulations' and 'rules of the road' are legal rules that we like. 'Restrictions' and 'laws' tend to be legal rules that coerce powerful interests in directions they might find uncongenial. However, most observers recognise that the rapid increase in TBDF necessitates some legal changes. But what should these changes be? How far should they go? How should they be developed?

Acknowledging the differing attitudes to international regulation, differing economic and political viewpoints, differing priorities, differing municipal legal structures and differing capacities to contribute, the fact remains that a shopping list of legal and social issues can now be defined. At this moment in the history of informatics, what we need is less talk about legal issues and more constructive action in the right forum so that, before it is too late, appropriate international laws or a framework for compatible domestic laws can be laid down, keeping pace with the technological penetration of TBDF in all countries of the world. Unless we immediately take initiatives to define the shopping list and to start work on it before further time is lost, we must face the prospect of the development of domestic laws that impact international technology in ways that are likely to be at once incompetent, inconsistent, incompatible and inefficient. Let us by all means differ. But the differences should be what are left after an appropriate effort to find common ground in the 'rules of the road'.

THE SHOPPING LIST

On many previous occasions I have referred, (as have other speakers) to the priority program for informatics law. The following items are certainly on the list:

(a) Privacy Protection. The increase in TBDF can result in increasing quantities of information about the citizens of one country being available in other countries. Until now, that would have been considered a legitimate matter of domestic concern and, possibly, domestic regulation. Furthermore, many countries of the First World at least, have moved in the last decade to provide legally enforceable privacy protection for their citizens. Doubtless the concern to provide such protection is in part a reaction to the individualistic philosophy of First World countries. Doubtless it has been influenced by the collective memory of the misuse of personal information by agencies of the oppressive state immediately before and during the Second World War. Although it has been said that Third World countries do not assign privacy protection such a high priority[14], the need for accuracy, fairness and up-to-dateness of personal and other data is as applicable in developing countries as in developed countries. The so-called 'golden rule' of privacy protection legislation (called 'data protection and data security' in Europe) has been the right of access of the individual to most data about himself or herself. Yet, in the context of TBDF, such a 'right of access', central to privacy legislation, may not be enforceable in

a foreign State. The right to correction of false, out of date or irrelevant information may not be enforceable if the information is held beyond the jurisdiction of a single State. Are we simply to accept with resignation this consequence of the limitations of domestic lawmaking as it impacts international data flows? Or are we to do something about it?

(b) Freedom of information. Many First World countries in the last decade have enacted freedom of information laws to permit the legal enforcement of greater access by the individual to general information in the possession of government agencies. Secret bureaucratic practices of the past are being broken down. In part, these moves represent a reflection of the demands for greater accountability as a consequence of populations that are better educated and better informed. But here too there are problems to be addressed. Who owns all this data about an individual? Should access be given not only to documents and printouts but to subject interrogation of data bases? How is the interaction of differing laws on official information to be adjusted in the age of TBDF? A well-known example is given by Professor Jon Bing of Norway.[15] A Norwegian social worker who published certain findings on NATO defence arrangements which were contained in documents restricted under Norwegian law was convicted of a security offence in Norway. The documents had been retrieved on line pursuant to the United States Freedom of Information Act. It was freely available on line from the United States. Yet it was a State secret in Norway. The new information technology and TBDF are likely to hasten the influence of the greater openness of administration. Such openness renders it so much more difficult to contain the haemorrhage of information when it is freely available available in one place and retrievable by TBDF in another.[15] There is also the issue of the extent to which this principle of access to and openness of information should extend into the private sector, particularly into multinational corporations. These are, at least partly, immune from the effective regulation of any particular country, save perhaps for the United States

(c) Vulnerability. The third group of problems include the vulnerability in the wired society resulting from TBDF. Sweden has led the way in the examination of this problem. A report on the vulnerability of the informatics-dependent society outlined not only domestic vulnerability caused by the breakdown of vital computers.[16] Recent computer breakdowns in Sweden have fulfilled the worst fears of the Swedish Vulnerability Board. There was inadequate support documentation, a high concentration of facilities and interdependence

of systems as well as a lack of emergency planning. The Swedish Stock Exchange was closed for a week despite round the clock efforts by technicians to repair the equipment.[17] But vulnerability can also arise from many other sources : from accidents, from natural disasters, from terrorism, from industrial disruption and so on. TBDF means that data vital for one country may be stored in a data base overseas rendering that country heavily dependant on factors outside its practical and legal control.

(d) Crimes and infofraud. In First World countries concern is expressed that unemployment and structural change caused by information technology will put new pressure upon society in many ways. People engaged in routine tasks may be replaced by informatics and displaced by structural economic change many of those who remain in employment will have increased leisure. The prospect of a large and possibly growing pool of unemployed, especially young unemployed, presents a risk of a loss of respect for institutions in society themselves rendered increasingly vulnerable by informatics. Young people surrounded by wealth and opportunities they cannot hope to enjoy may turn to crime. Crime of another sort is actually facilitated by informatics. I refer to computer crime.[18] TBDF presents special problems for municipal criminal law. Our police services tend to lack the high technological skills needed for detecting and proving cases of data fraud and manipulation. Our criminal laws are frequently written in language that is inapt for the antisocial conduct now possible. 'Theft' in common law countries involves the carrying away of goods. Yet with infofraud there may be no removal of hardware or software — simply access to valuable data. Furthermore, criminal law tends to be strictly local to a particular jurisdiction. Where a person can manipulate data in one country from another, causing harm in still anotherother legal jurisdiction, whose law will apply? Whose police will investigate and prosecute? Whose courts will have jurisdiction? Whose laws will, in terms, be adequate?

(e) Sovereignty and conflicts. In fact, informatics poses fundamental questions for the legal concept of sovereignty because a most potent force is suddenly released from physical adherence to a particular jurisdiction where it can be physically controlled. Electronic messages are generated in one country. They are switched in other countries. They transit still further countries. They are processed in yet different countries. They are stored in other lands entirely. They involve persons or entities resident in yet another place.[19] The potential connection of a particular transaction with many jurisdictions poses a number of dangers. Countries may enact incompatible municipal laws imposing obligations on TBDF

that are difficult or impossible to reconcile. They may provide no law, requiring the solution of the identification of applicable legal regimes to be found in rules developed in earlier, different circumstances to deal with the movement of persons and physical objects. By failing to provide internationally recognised regimes, municipal laws and policies may succumb to the power of transnational corporations, able to dictate rules to nation states or to ignore or by-pass rules which nation states enact.

There are many aspects to the sovereignty issue apart from the power of transnational corporations. They include:

- The potential for widespread disruption that would arise if one country has effective control over the storage, processing or transit of data vital to an enemy in time of conflict. Concern about this aspect of TBDF was voiced in the aftermath of the freezing of Iranian and Argentinian assets during recent conflicts involving those countries. In the past, such conduct could be greatly inconvenient. In the future, with heavier dependence on TBDF linking international data bases, it may afford those who control such data bases very considerable leverage over the economic and military potential of others. Will this be a force for peace or for hegemony?
- Another concern is that of cultural sovereignty. Fear has been expressed about the dominance of the Anglophones in informatics, especially of the United States. Since Hollywood, we have all been able to share in the variety of United States culture. But should this be allowed to go so far as to permit the dominance of one culture or language over others? Satellite and cable television, together with the proliferation of video cassette facilities, all threaten to flood the world, and not only in First World countries, with the dynamic output of United States studios. A diet of imported quiz shows, cowboy Westerns, Manhattan cops-and-robbers and soap operas already dominates regular television in many countries. This is partly in response to what we are told is consumer demand. Partly it is in response to the flood of cheap imports with which the home product often finds it hard to compete. But if this is so at present, how much more will it occur with satellite television? Translated into information data bases, concern is expressed in some quarters about the prospects for international pluralism and the preservation of other cultures. I have even heard the expression of anxiety that the future history of France may be written from English language translations of Le Monde kept in a Chicago data base. Whilst this may seem a far-fetched prospect, preservation of

legitimate cultural and linguistic variety in this world may require policy decisions, and possibly laws, that control and even limit TBDF. Whilst TBDF may make us more interdependent and thereby reduce the risks of some conflicts and whilst TBDF may reduce the ignorance of other cultures, it is legitimate for countries, particularly guardians of fragile cultures and languages, to take steps to preserve those cultures and languages. Those steps may include legal steps, difficult as these may be to enforce and sensitive though they must be countervailing claims on the free flow of ideas. It is not only elephants and koalas that are endangered species. Much of the rich diversity of man's culture is also endangered. Perhaps much will be irretrievably lost as the price we pay for our conquest of the tyranny of distance through informatics. But there is a legitimate realm for cultural and linguistic sovereignty, even in the age of nuclear fission and TBDF.

(f) Intellectual property and business law. A sixth group of problems relate to the need for reforms of copyright, insurance, contract and business law. The problems of computer copyright arise from the difficulty of stretching the language of current copyright conventions and laws to the ephemeral nature of software and the international pervasiveness of TBDF. More fundamentally, the difficulty arises from the fact that, traditionally, copyright has attached not to ideas or information as such but to the physical form in which they are manifested. Just before I left Australia, an important decision of the Appeal Bench of the Federal Court of Australia affirmed that Australian copyright law could protect computer software.[20] However, there has now been an appeal to Australia's highest court. Outside the courtrooms, the argument rages as the competing claims for the protection of the novelty and investment that goes into computer software programs (on the one hand) and the claims of so-called 'software liberation' on the other.[21] Municipal lawmakers are beginning to address this problem with special laws. In the United States, legislation has been introduced into the Congress to preserve copyright protection for software but to shorten the period of protection.[22] Legislation has also been introduced into the Australian Parliament.[23] Efforts to find international solutions are proceeding in WIPO, Unesco and the OECD. There is a legitimate claim to recompense those who develop original works in computerised format. But there are countervailing claims by developing countries to share in the inventions of mankind. In the area of informatics, as was pointed out at the last IBI World Conference, the benefits have been overwhelmingly confined so far to

the First World.[24] Any new world intellectual property regime will have to pay heed to the countervailing claims to access by developing countries to the economic and other adantages of informatics.

Time does not permit the exploration of the changes in contract law that are necessary in the age of instantaneous contracts achieved by TBDF. International transmission of contracts, bills of lading, bills of exchange, airway bills, letters of credit and so on are already occurring. The OECD Symposium in London was told how customs and other regulations have simply not kept pace with the electronic transmission of contractual documents of this kind. International business today operates in a world of complex municipal laws governing trade practices, taxation, foreign exchange, administrative authorities, foreign investment limitations etc. Instantaneous contracts achieved by TBDF reduce or remove the possibility of considering the complex variety of laws of a municipal character that may affect the transaction. A realisation of this simple fact will emphasise the need to develop appropriate international legal regimes for business transactions within identical or compatible legal rules.

There are other problems of a legal character arising from insurance against computer error and breakdown or failure of TBDF. Different countries have different rules for admission into evidence of computer and computer-generated data. Yet it cannot be doubted that as the world embraces informatics, our courts, their personnel and procedures will have to do so as well if they are to remain relevant to the provision of solutions to the problems and disputes of society.

CONCLUSIONS

What follows from all this? A remarkable new technology is forcing together the municipal legal regimes of foreign states. Because of the quality of informatics — its international, instantaneous, ephemeral and pervasive features — its operation on domestic laws may be inconvenient and inefficient. The problem is to secure internationally accepted rules, that transcend borders and provide an international regime within which TBDF and its consequential transactions can flourish.

The lessons of the past decade are these:

(a) The technology is forging ahead and presenting problems to be solved at a much faster pace than we are solving them.

(b) The search for truly international solutions will be extremely difficult because of the different legal traditions and institutions, economic interests and jurisprudential philosophies that exist in different countries, increasingly involved in TBDF.

(c) The institutions for international lawmaking are not well adapted to the urgencies of our age of technology. They are many. They are unco-ordinated. They have differing agendas and concerns. The most efficient of them are not always the most representative. In fact, we struggle along with 19th century techniques for the development of international law. We have not significantly updated our institutional machinery for addressing the complex social and legal questions posed by late 20th century technology.

(d) Even in those bodies where work on the legal issues of TBDF has begun, it is in a very early phase. Little has been achieved beyond the guidelines on privacy. Meetings constantly convene and break up with an agreement that things are urgent and difficult. There is too much talk and not enough action. Internationally respected jurists who will do the hard thinking and detailed preparatory work necessary for agreement, even as a first step, tend to be few and far between.

(e) Even when the first steps have been taken, it is a long journey to internationally agreed rules. There are so many impediments to agreement : linguistic, cultural, economic, legal traditions and so on. Only the insistent technology urges us on.

(f) It is increasingly recognised that not to develop rules is to make a decision. There are problems to be sorted out. Many of the problems have now been identified for a decade. Yet our achievements are few indeed. And even these have paid insufficient attention to the priorities and perspectives of developing countries.

(g) Nor should it be thought that countries which are information rich share nothing in common with developing countries. True it is, their concerns and perspectives may be different. Their priorities about free flows and data and individual privacy may not coincide. On the other hand, there is a common concern about the future of the principle of sovereignty as it is affected by informatics and the legitimate pursuit and enforcement of municipal policies on culture, language, unemployment, local industry and so on.

There should be more discussion about these issues. The discussion should be more open. It should be more intensive. It should be more international, in the sense of bringing together developed and developing contries to seek out common interests, spurred on by the technology of informatics. Such is the growth of TBDF that it does not seem unreasonable to propose that a fractional levy should be imposed upon the revenues accruing to

overseas telecommunications authorities to fund properly established international studies of the sociology of informatics, including its legal implications. Clearly such studies should take advantage of the work done already in the many international agencies I have named. But they should bring together more than the technocrat and the lawyer. They should involve representatives of business, the trade unions, consumers and other interests. They should bring together the developed and the developing world : the informatics rich and the informatics poor.

If we persist in the approach to the complex of legal issues posed by informatics through the techniques of the 19th century. Our generation will be reproached. It will be said that we pioneered a technology with enormous potential to bring mankind together but failed to lay down the institutions and rules by which this would happen with equity and efficiency. There has been more than enough talk. What is needed is a greater sense of urgency and new international means, however informal, to start the process of providing acceptable solutions.

FOOTNOTES

* The views stated are personal views only.

1. Canto XX.

2. Quoted in Australian Financial Review 5 May 1984, 7.

3. International Data-Base Market Shows Steady Growth, in (1984) 7 TDR 10; Cf Information Flow Vital to Global Economy (1983) 6 TDR 239.

4. Searching for a TDF World Forum, (1983) 6 TDR 308.

5. Hondius, cited ibid.

6. Organisation for Economic Co-operation and Development, Guidelines on the Protection of Privacy and Transborder Flows of Personal Data, 1981, OECD.

7. GJ Evans, The Prospects for Law Reform in Australia, Address to the Ninth Australian Law Reform Agencies Conference, Sydney, 16 June 1984.

8. G Stadler, in Intergovernmental Bureau for Informatics, World Congress on Trans Border Data Flow Policies, Final Proceedings, Rome, 1980, 108.

9. O Landa, in IBI, Final Proceedings, n 8, 126.

10. Can TDF Really Be Controlled? (1983) 6 TDR 242. See also P Robinson, Transborder Data Flow : International Dimensions, Paper for the XV National Conference on Informatics, Brazil, October 1982, mimeo.

11. A Madec, 'Transborder Data Flows : Towards an Information-Based Economy', La documention Francaise, 1982 (unofficial translation prepared by TDR, Vol V, No 6, 1982.

12. C Dalfen, cited in GR Pipe, Lawyers to Grapple with TDF Issues (1984) 7 TDR 16. See also P Robinson, Transborder Data Flows : An Overview of Issues, Paper prepared for the Symposium on TBDF organised by the OECD in London in December 1983.

13. WH Edgar, Statement of the Delegation of the United States of America, in IBI, Final Proceedings, n 8, 91.

14. G Stadler, op cit, n 8.

15. J Bing, P Forsberg and E Nygaard, Legal Problems Relating to Transborder Date Flows, published in OECD, An Exploration of Legal Issues in Information and Communication Technologies, ICCP Document 8, 1984.

16. Sweden, Report of the SARK Committee, The Vulnerability of the Computerised Society : Considerations and Proposals, 1979 (Official English translation by J Hogg), 1979.

17. Noted in (1983) 6 TDR 262.

18. On computer crime see J Bing & Ors, OECD Document 8, 69ff. The problem explains why Jan Freese (Sweden) has urged a new concept of 'data trespass'.

19. Testimony of WL Fishman, United States Banking Committee Sub-committee on International Finance and Monetary Policy, 9 November 1981, 10-11.

20. Apple Computer Inc v Computer Edge Pty Limited, unreported decision, Full Federal Court of Australia, 29 May 1984. Reversing an earlier decision by Beaumont J. See [1984] Reform 9.

21. B Taylor, King Canute's Copyright Law, Paper for Australian National Symposium on Legal Protection for Computer Software, 16 March 1984, mimeo.

22. According to a report in the Australian Financial Review, 22 May 1984, 2, the United States Senate has passed a Bill to extend copyright protection to makers of microchips giving chip designers ten years of exclusive right to make and distribute their property. It was predicted that the US House of Representatives was likely to approve a similar measure soon, adding microchip design to other types of intellectual property subject to copyright law.

23. Copyright Amendment Bill 1984. This Bill involves a change in the definition of 'literary work' to specify that a computer program is to be included in the definition and to protect computer programs whether originally created in 'source' or 'object' code and whether on paper or in a computer-readable form.

24. See O Landa, n 9 above.