

Technology and Legal Systems

Noel Cox

Technology and Legal Systems

NOEL COX

Auckland University of Technology, New Zealand

ASHGATE

© Noel Cox 2006

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the prior permission of the publisher.

Noel Cox has asserted his right under the Copyright, Designs and Patents Act, 1988, to be identified as the author of this work.

Published by

Ashgate Publishing Limited
Gower House
Croft Road
Aldershot
Hampshire GU11 3HR
England

Ashgate Publishing Company
Suite 420
101 Cherry Street
Burlington, VT 05401-4405
USA

Ashgate website: http://www.ashgate.com
--

British Library Cataloguing in Publication Data

Cox, Noel

Technology and legal systems

1. Constitutional law 2. Technology and law

I. Title

342

Library of Congress Control Number: 2006922513

ISBN-10: 0 7546 4544 4

ISBN-13: 978 0 7546 4544 3

Printed and bound in Great Britain by TJ International Ltd,
Padstow, Cornwall

Preface

The twentieth century was one of the most profoundly significant in the recorded history of mankind. Although relatively few of the technological changes which occurred in the course of the century were revolutionary, *per se*, in that they changed the cultural paradigm in which they were set, taken as a whole the twentieth century saw more significant and widespread change than any previous century. Across political, economic, social, military, and technological fields the twentieth century saw enormous evolutionary and occasionally revolutionary shifts in paradigms.

One vital aspect of the societal construct which reflected and in part aided these developments was law. Individual laws encouraged, allowed, tolerated, or prescribed certain activities or undertakings. Laws, and the legal regimes or systems through which these operate, have had to change dramatically across many areas of human endeavour. New fields of legal regulation have developed in response to these changes. But law, because it is often prescriptive or regulatory, and because of the complex process through which it is developed or created, is not ideally suited to respond to profound changes, nor is it generally pro-active. This is especially so where the changes are unexpected or unanticipated, or their scope and nature is uncertain. Its ability to pre-empt change, or influence the direction of developments, is even more limited.

This limitation is particularly true of constitutional laws, which govern the law-making entities (generally sovereign states, but also including sub-state entities, and international legal entities), and the regimes through which specific substantive and procedural laws are made. These establish the frameworks in which the discourse proceeds, but challenges to the framework may come from paradigmatic changes to technologies, or the societies, or of the cultures which they serve.

This book is an attempt to integrate what has been for me a long-standing interest in constitutional law. This is done through identifying some of the dynamics which constrain and regulate the development of specific constitutional laws. Expressed another way, why does country A have a particular form of legislature, and country B does not? There are numerous studies of the constitutions of individual countries, and many comparative studies of constitutions and constitutional arrangements. One field which, it seemed to me, is ripe for exploration – and this book does not pretend to be anything more than a preliminary foray into the field – is the influence of technology upon legal systems (upon constitutions, if one prefers, though it is in reality rather broader than that). This is especially important today as the so-called knowledge revolution threatens – or so we are told by some – to undermine the pre-existing political, legal, and economic paradigms.

What I set out to achieve in this book – and which I hope I have succeeded in achieving, at least in part – is to show that this form of influence is neither new nor especially threatening. There have been many instances in the past when technology – either new technologies, or the new application of old technologies – have had profound effects upon nations. Some of these are relatively obvious (such as the advent of the printing press, or of gunpowder), while others may be less so, and are therefore more controversial. The controversy lies in the degree of influence, and in the degree to which the technology was influenced by the contemporary legal system, rather than vice versa.

If we accept that technology, however broadly defined, has been a profound influence upon legal systems, then we may use case studies of how this has happened in the past in order to identify some possible guidelines, principles or indicators for the nature of this influence in the future.

This book began as a research project undertaken while I was in residence as a visiting fellow at The Australian National University, Canberra. I wish to acknowledge the assistance of members of the Faculty of Law, and of the Law Programme of the Research School of Social Sciences, of The Australian National University, in particular Professor Peter Bailey, Professor Suzanne Corcoran, and Mr Daniel Stewart.

The remainder of the work was undertaken at the Auckland University of Technology, which (as its name suggests) has a particular interest in the implications of changing technology on law, business, society and government.

I would also like to thank the other scholars, commentators, reviewers and myriad other people who are inevitably involved to some degree in the production of any work of this sort. As always, any errors and omissions remain mine alone.

Noel Cox

Introduction

Any attempt to understand the structure of contemporary law and society cannot fail to consider the roles technological innovation and change play in the development of law, and in the relationship of law and society respectively. This influence extends to not merely the detail or minutiae of the law, but also to what might be called the meta-structure of law and society, as well as to the constitution of a country. The latter term should be understood in this context to refer, not to a single written document, but to the complex amalgam of rules, regulations, conventions and practices which comprise the governing constitution of a country. A narrower definition would do a disservice to the inquiry, as we are here concerned with the dynamics of constitutionalism, not the narrow details of constitutions or of individual laws, however important they may otherwise be.

The constitution is a flexible and changing instrument, and the real constitution is not only created but also only fully known by its actors, those who take part in the day-to-day operation of its institutions. The differences in perception – and in aspirations – between these actors and the general public can be significant. A constitution does not have an objective existence, in that it is more than merely individuals and legal structures, particularly in respect of what might be called policy legacies. It exists in the imagination of those who create it, use it and thus know it. Thus the actions of politicians, judges and public servants – and even of members of the public – provide the key to understanding the constitution. This constitution provides a framework for governance, and in turn is the product of the society and environment in which it is based.

It is axiomatic that law is a product of society, indeed of the cultural inheritance, structures, norms, and economies of a specific society. This is true at both the domestic level, and at the regional, supra-national, and international levels (at which levels the specific societies are generally progressively more complex and less homogeneous). Law is also primarily organic in nature, and is not purely a conscious or deliberate coherent system of man-made rules. In general, analyses of law and society have tended to concentrate upon social and political influences within individual jurisdictions, or historical traditions. This is an almost inevitable consequence of the complexity of such studies and the difficulty of undertaking a comparative study which is not grounded in the cultural tradition of the author. The weakness here, if such it be, is that it is more difficult to perceive international, or generic, dynamics, than those of a single country.

Though the effect of technology upon society has been subject to a considerable amount of scholarly study, there has been comparatively little consideration of the generic influence of technology upon law, and in particular, upon legal norms, governance, and constitutions. This is especially unsatisfactory

in light of the significant technological, economic, and social effects of technology, and particularly as a result of those changes occurring within the last 150 years. In recent years it has become necessary for law reformers and policy makers to take into account the affects of information technology, and the advent of the knowledge economy and knowledge society, upon the law, and upon legal and political processes. It is difficult enough ascertaining the legal implications of specific technological changes; it is quite another matter to appreciate the overall effect of technological change upon the political grundnorm. The information technology revolution has been lauded as profound and bringing in its wake a paradigmatic change. It is as yet too early to be certain of the importance of the information technology revolution, if indeed it should be styled a revolution, but it is likely to be significant.

However there is nothing especially new in technology influencing the development of law, or in law itself retarding, promoting, or otherwise influencing the development of technology. Indeed, these processes have occurred repeatedly throughout recorded history (and doubtless for as long as humans have known systems of laws, however primitive those systems might be), though certain periods may be categorized as being more changeful – and more juridical – than others. It would be inexplicable if laws did not influence technology and vice versa. Evolution is a process of steps (some of which may be sideways, or even backwards), whether that evolution is of the law, or of natural organisms.

The current international obsession with the ‘information society’, and with various aspects of globalization, indicates that this influence (of technology on law), while not novel, may be in some respects distinct from that in earlier eras. This may be so (though this is not certain), even if only in its comprehensiveness, both geographically and culturally. Thus, not only is much of the world almost simultaneously affected by the new technology, but this technology affects societies and economies at multiple levels. It is these latter respects – the breadth and depth of information technology – that seems to place the current technology revolution on a different level to previous technological revolutions, and may demand a broader approach to understand the dynamics of change, and thus the legal and policy implications.

The social conditions which constitute the conditions of a given society include political, cultural, economic, and technological influences. Separating these, or determining which (if any) may be pre-eminent at a given time, is a highly complex exercise. However, there is little doubt that technology has had a strong on-going influence on legal systems and constitutions, and upon the economic structure and operation of societies. This book seeks to explore some aspects of technology’s relationship with law and government, and in particular the effects changing technology has had on constitutional structures and upon business.

Part I considers the legal normative influence of constitutional structures and political theories. This includes the rule of law, and legitimacy, both of which inhibit the freedom of action of political organs. The interrelationship between law and political entities in the constitution is dynamic and multi-directional, so that

the substantive and procedural laws are the product of their context. This also means that these laws also influence the subsequent development of the constitution itself – in some cases in a form of self-fulfilling prophecy. Technology is also both inhibited and directed by these laws and by the constitutional systems in which they are embedded. But technology also affects the laws and the legal processes, especially when there are significant shifts of technological paradigms.

Part II concentrates upon the relationship of government and technology. The constitution – always here broadly defined – responds to significant shifts in technology. This may be reflected domestically, or through states' relationships with one another at a global level. Such changes are not of course new, and historical studies illustrate how technology has both shaped past civilizations and been the product of their political and constitutional environment.

In the twenty-first century the most significant new technologies – significant in their potential for constitutional change – are the information technologies, including telecommunications, and also genetic engineering. These are already having discernible affects upon laws, and their eventual affects upon legal systems may be predicted – with greater or lesser accuracy.

Technology must be contextualised within a constitution. As a human creation it is sensitive to the political and economic conditions of the time and location in which it is placed. But constitutions are equally influenced by their time and place, and by technology.

Contents

Preface

Introduction

vii

ix

PART I THE NATURE OF LAW AND TECHNOLOGY

1	The Nature of Law and Government	3
1.1	Introduction	3
1.2	Government – a Case Study	3
1.3	The Rule of Law	19
1.4	The Relationship between Law and Government	24
1.5	The Nature of Law and Technology	31
1.6	Conclusion	33
2	The Response of Business to Changes in the Legal Environment	51
2.1	Introduction	51
2.2	Business Response to Changes in Legal Systems	53
2.3	Political Collapse and Laissez-Faire Economies	56
2.4	Conclusion	58
3	Technology's Effect on Legal Systems	63
3.1	Introduction	63
3.2	The Nature and Type of Technologies	64
3.3	The Effect of Technological Change on Law	65
3.4	Conclusion	69

PART II THE RELATIONSHIP OF GOVERNMENT AND TECHNOLOGY

4	Constitutional Responses to Paradigmatic Shifts in Technology	79
4.1	Introduction	79
4.2	Technological Challenges to Constitutional Paradigms	82
4.3	The State	85
4.3.1	Global Technological Environment	88
4.3.2	Global Geo-Political Environment	90
4.3.3	The Global Environment	91
4.4	Sovereignty	91
4.5	Conclusion	94

5	The Nature of Constitutions and their Relationship with Technology	109
5.1	Introduction	109
5.2	Legitimacy and the State	109
5.3	Possible Changes in the Nature of Government and the Global Environment	115
5.4	The Contextualization of Constitutions and Technology	118
5.5	Conclusion	119
6	Changes in the Past	127
6.1	Introduction	127
6.2	Egypt	128
6.3	Rome	130
6.4	Dark Age and Mediæval Europe	131
6.5	The Reformation	138
6.6	The Industrial Revolution	139
6.7	The Constitutional Effects of Technology	140
6.8	Conclusion	141
7	Changes in the Present	151
7.1	Introduction	151
7.2	Telecommunications	151
7.3	The Internet	154
7.3.1	The Internet and Commerce	159
7.3.2	The Internet and the State	166
7.4	Conclusion	172
8	Technological Challenges to Law, Property and Ethics	193
8.1	Introduction	193
8.2	The Advent of Modern Genetic Engineering	194
8.3	Conclusion	201
9	Lessons for the Future	209
9.1	Introduction	209
9.2	Global Governance as a Result of Technology	211
9.3	Conclusion	215
	<i>Bibliography</i>	221
	<i>Index</i>	261

PART I

THE NATURE OF LAW AND TECHNOLOGY

Technology, and technological changes, affects the legal system. These effects are partly direct, and partly indirect. The former include those comparatively rare instances where the process or form of government is directly affected by technological change, or by the advent of new technology. A simple example would be the creation and introduction of electronic voting for use in political elections, which might have significant implications for the electoral process, and on political campaigning. Indirect effects are those which occur via changes to the economy and in society, and may well be very much more wide-ranging, if more difficult to identify and measure, than the direct effects. Technological changes are altering the relationship of governed and government, and between government and government, and between government and the world legal order. But these changes are neither new in nature, nor are the changes always clearly discernible.

Legal systems also affect the development of technology, and changes in legal systems (whether wrought by technological changes or otherwise) can have significant effects upon business. This part of the book discusses the nature of law and technology, and the general relationship between government and business, as a specific sector of society which can be particularly sensitive to technological change, and also itself a source of many of the technological changes.

Chapter 1

The Nature of Law and Government

1.1 Introduction

What is the relationship between law and government? How does law evolve, and how does government evolve? What are some of the influences upon this relationship? These are extremely broad questions which have taxed theorists in a number of academic disciplines, and across jurisdictions – as well as politicians and others more directly concerned with the application of theory to practice – for many centuries. This Chapter will not presume to attempt to directly answer these questions, but will consider some aspects of the relationship, particularly as it affects law, business and technology.

Let us start with a brief definition of law – one which is neither comprehensive nor necessarily valid for all purposes, but which will suffice for this limited purpose. Law may be defined as the procedural and substantive environment through which rights, wrongs and responsibilities are assigned, judged and enforced by some external agency.¹ Thus it may be seen as being at once an externally-imposed environmental element, within which individuals and communities must operate, and at the same time the internal product of that community – though the degree to which the individual and even communities influence the substance of the law may be strictly limited by various factors.² Generally these laws are created, and interpreted, and judgements are enforced, by some element of the government of a state. There are of course other forms of law, but for the purposes of this book we will confine ourselves to this more formal and narrow concept of law.

Having provided a definition of law with which to work, we will now consider how this relates to government. This analysis will be based upon a case study of an actual government, so as to illustrate some aspects of the dynamics of the relationship.

1.2 Government – a Case Study

Government is, in its loosest definition, merely that process or apparatus which governs a given political entity. This of course immediately involves consideration of such controversial and contentious concepts as territoriality and sovereignty. These concepts are especially important because they concern the relationship of state to state, and are not purely domestic or national in nature. They are thus

particularly important when considering the development of technological changes which have a global reach – as, increasingly, many do.

The Montevideo Convention of 1933 is generally regarded as articulating the modern requirements for statehood. According to the requirements of this Convention (strictly binding only on the party states, but generally accepted since then as representative of customary international law), a state must have a permanent population; it must have a defined territory; it must have a government; and it must have the capacity to enter into diplomatic relations.³ No other entity could be regarded as a state, whatever its *de facto* power. Leaderless populations or ethnic groups within states generally lacked sovereign status and, accordingly, the recognition and protection of public international law. However, having identified a given political entity as a state (and that may be a far from easy task, despite the apparent simplicity of the Montevideo requirements), much yet remains unsettled – primarily because there are few, if any, internationally valid norms of domestic law with respect to statehood. In other words, though a sovereign state may appear much the same externally, from within there are marked structural differences between one state and another.

The precise nature of the authority of a state within its own territory is not within the scope of international law, and is heavily influenced by the particular constitutional, political, historical, social and economic heritage of individual states. It is therefore difficult to generalize about the nature and form of government. However, there are certain common elements, at least among the modern legalistic entities which we call states. In earlier times, that is, before the advent of modern juridical states, there was a greater element of flexibility and consequently a lesser degree of similarity, in statehood.

We will consider one case study of a constitution (or constitutional structure), in order to show some aspects of the relationship between law and government. This example is New Zealand, which – almost uniquely – enjoys the advantages and disadvantages of an unwritten and unentrenched constitution. Its constitutional arrangements, and hence the relationship between law and government, are not controlled by what may be categorized as artificial constraints. They are rather the product of evolutionary political, social and economic forces which have been at work since 1840.⁴ No other country offers the opportunity to study an organic constitution of this sort.

New Zealand has a constitution which contains what might appear at first glance to be a dichotomy. It is a democratic monarchy, with executive power (and elements of legislative and judicial authority) vested in the Sovereign – or Crown, as the entity which the Sovereign represents is styled. Yet it has a government responsible to Parliament and thence to the electorate. This arrangement, typical of the nineteenth century British genius for improvisation and compromise (or what has also been described as muddle and hypocrisy), seems to work despite – or perhaps because of – its apparent weakness in principle.

New Zealand statutes have tended to use the terms ‘Her Majesty the Queen’ and ‘the Crown’ interchangeably and apparently arbitrarily.⁵ There appears to have

been no intention to draw any theoretical or conceptual distinctions. This may simply be a reflection of a certain looseness of drafting, but it may have its foundation in a certain lack of certainty felt by legal draftsmen as much as by the general public.⁶ 'The Crown' itself is a comparatively modern concept in Commonwealth jurisprudence. As Maitland said, the king was merely a man, though one who does many things.⁷ For historical reasons the king or queen came to be recognized in law as not merely the chief source of the executive power, but also as the sole legal representative of the state or organized community.

According to Maitland, the crumbling of the feudal state threatened to break down the identification of the king and state, and as a consequence Coke recast the king as the legal representative of the state. It was Coke who first attributed legal personality to the Crown.⁸ He recast the king as a corporation sole, permanent and metaphysical.⁹

The king's corporate identity¹⁰ drew support from the doctrine of succession that held that the king never dies¹¹ – so that there might be no interregnum or lacuna of authority. It was also supported by the common law doctrine of seisin of land, where the heir was possessed at all times of a right to an estate even before succession.¹² Blackstone explained that the king:

is made a corporation to prevent in general the possibility of an interregnum or vacancy of the throne, and to preserve the possessions of the Crown entire.¹³

Thus the role of the Crown was eminently practical. In the tradition of the common law constitutional theory was subsequently developed which rationalized and explained the existing practice – as, for example, in the development of the law of succession to the Crown.¹⁴

Generally, and in order to better conduct the business of government, the Crown was accorded certain privileges and immunities not available to any other legal entity.¹⁵ Blackstone observed that '[t]he King is not only incapable of doing wrong, but even of thinking wrong; he can never mean to do an improper thing, in him is no folly or weakness'.¹⁶ Mathieson has proffered the notion that the Crown may do whatever statute or the royal prerogative expressly or by implication authorizes, but that it lacks any natural capacities such as an individual or juridical entity may possess.¹⁷

In the course of the twentieth century the concept of the Crown has succeeded the king as the essential core of the corporation, which is now regarded as a corporation aggregate rather than a corporation sole.¹⁸ In a series of cases in both the United Kingdom and New Zealand, we can see the courts struggling to categorize the nature of the Crown.¹⁹

In *Re Mason*²⁰ Romer J stated that it was established law that the Crown was a corporation, but did not indicate whether it was a corporation sole (as generally accepted) or a corporation aggregate (as Maitland argued). Maitland believed that the Crown, as distinct from the king, was anciently not known to the law but in modern usage had become the head of a 'complex and highly organized

“corporation aggregate of many” – of very many’.²¹ In *Adams v Naylor*,²² the House of Lords adopted Maitland’s legal conception of the Crown.²³

Although the House of Lords in 1977, in *Town Investments v Department of the Environment*,²⁴ accepted that the Crown did have legal personality, it also adopted the potentially confusing practice of speaking of actions of the executive as being performed by ‘the government’ rather than ‘the Crown’.²⁵ The practical need for this distinction is avoided if one recognizes the aggregate nature of the Crown.²⁶ ‘The government’ is something which, unlike the Crown, has no corporate or juridical existence known to the constitution. Further, its legal definition is both legally and practically unnecessary.

In *Town Investments*,²⁷ Lord Simon, with little argument, accepted that the Crown was a corporation aggregate, as Maitland had believed. This appears to be in accordance with the realities of the modern state, although it was contrary to the traditional view of the Crown. Thus, the Crown is now seen, legally, as a nexus of rights and privileges, exercised by a number of individuals, officials and departments, all called ‘the Crown’.

More recently, in *M v Home Office*,²⁸ the English Court of Appeal held that the Crown lacked legal personality and was therefore not amenable to contempt of court proceedings.²⁹ But it is precisely because in the Westminster-style political system we do not have the Continental notion of a state, nor an entrenched constitution,³⁰ that the concept of the Crown as a legal entity with full powers in its own right arose. *Town Investments* must in any event be regarded as the definitive statement of current English law.

The development of the concept of the aggregate Crown from the corporate Crown provides sufficient flexibility to accommodate the reality of government, without the need for abandoning an essential legal grundnorm³¹ in favour of a very undeveloped and inherently vague concept of ‘the government’.³² Thus, for reasons principally of convenience, the Crown became an umbrella beneath which the business of government was conducted.

The Crown has always operated through a series of servants and agents, some more permanent than others. The law recognizes the Crown as the body in whom the executive authority of the country is vested, and by which the business of executive government is exercised.

Whether New Zealand has a Crown aggregate or corporate, the government is formally that of the Sovereign,³³ and the Crown has the place in administration held by the state in other – principally civil law – legal traditions. The Crown, whether or not there is a resident Sovereign, acts as the legal umbrella under which the various activities of government are conducted, and with whom, in the specifically New Zealand context, the indigenous Maori people may negotiate as treaty partner with the Crown.³⁴ Indeed, the very absence of the Sovereign has encouraged this modern tendency for the Crown to be regarded as a concept of government quite distinct from the person of the Sovereign.³⁵

The monarchy does, however, have a role beyond the symbolic. In his analysis of the British Crown in his own day (1865), Bagehot seriously underestimated its

surviving influence.³⁶ His famous aphorism, that a constitutional Sovereign has the right to be consulted, to encourage, and to warn,³⁷ can hardly express the residual royal powers of even the late nineteenth century.³⁸ It may describe the royal powers today – in the United Kingdom if not the overseas realms of Queen Elizabeth II – but does not explain why the inherited concept of the supremacy of the Crown should leave the constitution apparently centred upon an institution lacking real power.

But Bagehot, like Palmerston and Gladstone, wanted the monarchy relegated to the status of a museum piece, despite the Sovereign's 'right to be consulted, to encourage, and to warn'.³⁹ This passive role was not that envisaged by George IV, William IV, Victoria or Edward VII (though the latter's sons and granddaughter were each to later study Bagehot in their schooldays), nor that held by the majority of statesmen and text-book writers over this period. They felt that the Sovereign's role as head of state in a popular parliamentary system had still to be satisfactorily defined, and might well be rather wider than that assigned to it by Bagehot.⁴⁰

Dicey and Anson, the leading authorities of their own day, were inclined to advocate a stretching of the royal discretion (or rather to acknowledge a broader discretion than Bagehot had done), and, to some extent at least, the monarchy ostensibly operated at a political level under Edward VII in much the same way as it did under George IV.⁴¹ But there had been a clear change in the basis of royal authority. This was now almost totally dependent upon parliamentary support. But there has been no study which offers evidence to show that the exercise by the Crown of the rights to be consulted, to encourage, and to warn, has influenced the course of policy.⁴²

The Crown is more than just the mechanism through which government is administered. It is also itself one of the sources of governmental authority, as a traditional source of legal sovereignty. Not only is government conducted through the Crown (as discussed above), but some governmental authority is derived from the Crown as the legal focus of sovereignty.

'Sovereignty' put simply, is the idea that there is a 'final authority within a given territory'.⁴³ Foucault identified four possible descriptions of the traditional role of sovereignty:

- (i) to describe a mechanism of power in feudal society;
- (ii) as a justification for the construction of large-scale administrative monarchies;
- (iii) as an ideology used by one side or the other in the seventeenth century wars of religion; and
- (iv) in the construction of parliamentary alternatives to the absolutist monarchies.⁴⁴

Whatever rationale applied to the embryonic English Crown, the old theory of sovereignty has been democratized since the nineteenth century into a notion of collective sovereignty, exercised through parliamentary institutions. The fundamental responsibility for the maintenance of society itself is much more widely dispersed throughout its varied institutions and the whole population. To