

Reviewed by Sunny Handa*

Introduction

The year 2000 ("Y2K") problem (also known as the millennium bug) illustrates the dependence we, as a modern society, place on computer systems. The Y2K problem, which has gained a lot of press over the past two years, is a data-related computer processing problem that will disrupt computer systems and cause adverse economic consequences. The magnitude of these effects, however, is a matter of much debate. Businesses, governments, and other organizations are busily preparing themselves for possible Y2K effects, both from their own information systems and as a result of their linkages with other organizations (i.e., suppliers and customers). Although the computer industry has known about the Y2K problem for many years, little was done in terms of bringing it to management’s attention until the threat of legal action began to crystallize. Computer software and hardware developers, as well as any organizations using products that potentially may be plagued by a Y2K problem, are all possible defendants in Y2K lawsuits. The legal complexities associated with the Y2K problem should not be underestimated. They range from issues of contract, tort, financial reporting, corporate governance, regulatory oversight, copyright, employment, and general corporate law issues. Alan M. Gahtan’s The Year 2000 Computer Crisis Legal Guide' attempts to navigate through these complex issues.

* Doctor of Laws. Barrister and solicitor of the Ontario Bar. Counsel to the law firm of Martineau Walker. Adjunct Professor of Law (McGill University, Montreal, Canada).
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I. The Year 2000 Problem

A. What is the Y2K Problem?

For many years, large data processing systems were programmed using only a two-digit, year-date field. This was done to save on both storage and processing costs. The difficulty with using a two-digit field is that when the calendar changes from the year 1999 to the year 2000, the two-digit field will change from the year 99 to to the year 00. Zeroes and computers (which “understand” mathematics), in a nutshell, do not get along. It is expected that when the date changes to the year 2000, many computer systems, regardless of their function, will crash or experience data processing problems. While this sounds like science fiction, it is a serious business problem that is expected to result in global economic losses in the billions, and possibly even in the trillions of dollars. It will also likely result in the failure of some companies. Other critical dates will result in processing errors, including February 29, 2000.

B. The Size of the Problem

The size of the Y2K problem should not be underestimated. According to a 1997 statement by the United States General Accounting Office (Accounting and Information Management Division): “Time is running out. Renovation work should be done by mid-1998 to allow sufficient time for validation and implementation. ... [Organizations] must act quickly to complete the assessment phase and begin to renovate their mission-critical systems now.” We are well past the mid-1998 date and many businesses (and individuals) are still ignoring the Y2K problem.

Recent newspaper accounts indicate that the United States federal government is spending upwards of $US 3.8 billion in order to rectify this problem. A 1997 Fortune 500 survey revealed that only 16% of Fortune 500 companies were Y2K compliant. Closer to home, Bell Canada announced that it has set aside just over $CDN 500 million to correct the Y2K problem. Many experts believe that these amounts will not be enough. To fix the problem, it is estimated that $300 to $600 billion will be spent re-writing in excess of 250 billion lines of computer code.

Why is the Y2K problem expected to cost so much? First, time is running out. Identifying the problem from a technical perspective is one measure of cost. Finding programmers who can fix the problem, and professionals who can structure a solution

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to the problem, is difficult. These professionals are in high demand and the cost for their services will continue to increase over the coming months.

Second, the Y2K problem cannot simply be assessed and eradicated on a micro-economic or per-industry basis. Rather, the problem must be considered on a macro-economic basis, taking into account a firm’s business relationships. While one organization may be Y2K compliant, its suppliers or the purchasers of its products may not be. The Y2K problem can easily cascade through an economy, shutting down companies that are otherwise internally Y2K compliant. Figuring out these risks and costs can be very tricky. The following example helps illustrate the seriousness of the problem.

C. Example of Y2K Effects

Let us say that Automobile Motor Manufacturing Company is Y2K compliant. The supplier of its radios, however, may not be. When we reach the year 2000, if the supplier’s information system shuts down or crashes, it will no longer be able to supply Automobile Motor Manufacturing Company with its radios. The result? Automobile Motor Manufacturing Company will not be able to produce cars until its supplier becomes Y2K compliant. Given the intricacies of manufacturing today, the proliferation of electronic-data interchange arrangements, and the number of suppliers involved in producing a given product, the Y2K multiplier effect should not be underestimated. Thus far, it has been very difficult for industry to gauge this type of risk.

As one can see, the Y2K problem is a business problem, and not simply an information technology or computing problem. The Y2K problem may affect a number of vital business systems including manufacturing, accounting, payroll, data processing, etc. Many problems that arise will seemingly have nothing to do with information systems. In other words, while the Y2K problem requires an information technology solution, it also involves other fields of endeavour including the law. This is where The Year 2000 Computer Crisis Legal Guide stakes its claim—on the legal issues relating to the Y2K problem.

II. Analysis of The Year 2000 Computer Crisis Legal Guide

A. Timing of the Book

The Year 2000 Computer Crisis Legal Guide was published in 1998. This means that it was probably mostly written during 1997 and early 1998, when Y2K legal expertise and doctrinal development was still in its early stages. This is both the strength and weakness of the book. It was published at a time when there were few cases filed and nothing in the way of legislation (since that time, we have been witness to the passage of the American Year 2000 Information and Readiness Disclosure Act, as

well as a number of United States state laws and other Y2K bills). At the time, there was also little in the way of legal writing or analysis. Gahtan's book provided one of the early key tools for both lawyers and business people who were facing unknown legal challenges due to the Y2K problem. As a lawyer working in this field, I have seldom been in the presence of opposing counsel or in-house counsel working for a big corporate client without seeing at least one copy of The Year 2000 Computer Crisis Legal Guide. By being one of the early Y2K legal books (anywhere in the world) and by being the only Y2K Canadian legal book at the time, The Year 2000 Computer Crisis Legal Guide quickly gained a high level of market penetration upon release. As a consequence, the book’s methodology and analysis have been adopted by many important Y2K players, including lawyers and Y2K consultants. This has, to some degree, created the potential for a perverse effect. The book’s format, organization, and substantive recommendations have, to some degree, influenced the evolution of how Canadian business views and treats the Y2K problem.

B. A Different Kind of Legal Book

The Year 2000 Computer Crisis Legal Guide is by no means a legal treatise on the subject of the Y2K problem, nor is it the sort of book that is typically reviewed in a law journal such as this. It contains no great theoretical analysis of the problem. Its tone is largely “matter of fact” and its solutions are often based on common (legal) sense. In the language of legal theory, it takes a positivist, as opposed to a normativist, approach to the problem. Stated another way, it is written for the practising lawyer and business person, and not for the legal academic.

C. The Book’s Contents

The Year 2000 Computer Crisis Legal Guide contains twenty chapters as well as a short appendix. The book is well laid out and uses effective subheadings, all of which can be readily referenced using the detailed table of contents. These allow readers to navigate quickly to that portion of the text that may be relevant to their situation. This ability to “randomly access” portions of the book (to use computer jargon) is another important feature of the book. While the book can be comfortably read from cover to cover, it contains a high level of dry detail. Thus, for it to be effective, readers will want to go back and reference chapters as they encounter specific Y2K problems.

As with this review, the book predictably begins with a description of the Y2K problem. The author discusses the causes of the problem in an easy-to-understand fashion, avoiding “computer-ese” where possible. The first chapter also attempts to

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describe the scope of the problem as well as the costs of reparation. After providing a solid dose of fear to the uninitiated, the chapter concludes by comforting readers, telling them that they are not alone, and by making the task of achieving Y2K compliance within an organization seem manageable.

Following the first chapter, which stands out as the only non-law chapter in the book, the second chapter jumps right into issues of potential liability. Breach of contract, negligence, misrepresentation, breach of fiduciary duty, product liability, breach of sale-of-goods warranties, and breach of statutory duties are all briefly discussed—each taking up roughly one to two pages. The liability chapter provides a good overview of the sorts of claims one might face for failing to operate a Y2K compliant business. Points discussed presuppose some legal training and are not designed for the uninitiated reader, whether a business person or other reader.

The four chapters that follow deal primarily with financial institutions and the governing regulatory regime. Government initiatives are briefly introduced in a general sense, followed by a more in-depth discussion of specific rules issued by regulatory agencies and quasi-governmental organizations. An entire chapter is devoted to public-company disclosure obligations in both Canada and the United States. These include legislative requirements, stock exchange and securities commissions' policies, as well as stock exchange requirements. The book discusses the form and the substance of these Y2K compliance disclosure requirements and provides examples.

In addition to the continuous disclosure obligations of public companies, there is a good amount of discussion concerning financial reporting and auditing issues. Fortunately, at the time of the book's writing, many of the securities regulators and stock exchanges had already implemented rules concerning Y2K compliance or readiness disclosure. In Canada, these rules have not changed since the book's publication. However, the substance of Y2K disclosure statements in annual reports has clearly evolved since the book's writing. Whereas a number of companies were initially satisfied with providing details about their Y2K programme, in 1999, the latest annual reports are much more vague and non-committal in terms of their disclosure. The trend seems to be that most companies are only willing to meet the minimum requirements as set out by the securities regulators and relevant exchanges. The book provides examples of minimum disclosures (i.e., those that are currently being used). This is due to the fact that the author is an experienced technology lawyer and is well versed in the complexities of the Y2K problem. Once again, one wonders whether or not the book, and its examples, have changed the types of annual report disclosures that are being made. The example has clearly been followed in a number of annual reports that have been released since the book's publication.

Although the book does discuss public disclosure obligations in the United States, it has not been as successful in remaining up-to-date with these. A number of Y2K related securities and exchange policies have been released by the securities and exchange commissions, as well as by American-based public exchanges since the book's publication. While the book provides a comprehensive general treatment of public-company disclosure issues, it (smartly?) avoids details related to the policies that were in place and being considered at the time.
Chapter 6 discusses financial reporting and auditing issues. It provides an interesting discussion of financial auditing and its interplay with the Y2K problem. For example, the book discusses large multi-disciplinary business consulting firms (formerly accounting firms) that now provide their clients with both auditing and non-auditing services (identifying and correcting Y2K problems). Gahtan flags the potential conflict-of-interest issue in such a circumstance. The chapter also discusses various rules set out by professional accounting associations, including the Canadian Institute of Chartered Accountants. The author also highlights the tension between auditors' traditional responsibilities and their obligations in reporting conditions related to the Y2K problem.

Possibly the most important and frequently read chapter of the book is Chapter 7: "Corporate Governance and the Liability of Directors and Officers." Directors and officers have fiduciary obligations to their company—such that they are under a duty to act with loyalty, integrity, prudence, and diligence in the discharge of their functions. This means that with respect to the Y2K problem, they must take reasonable steps to be aware of problems, make sure that the economic health of the company is not affected, and if the health is affected, work toward a solution that is both feasible in terms of cost and implementation time. Unfortunately, Gahtan's discussion of corporate governance and directors'/officers' liability totals a scant seven pages in length. Such an important topic would have benefited from a longer and more in-depth treatment. Nevertheless, Gahtan discusses the risks facing officers and directors of companies. Specifically, he discusses duty of care, the business judgment rule, and disclosure obligations. Most importantly, a checklist of basic steps to take to reduce the potential for liability is provided. Gahtan even mentions the potential for liability where directors, officers, or third parties in a special relationship with a reporting issuer trade securities based on undisclosed Y2K-related information.

Although Chapter 7 provides a good start for officers and directors, most will find the text a little thin. It is prudent for those officers and directors who feel that they are facing significant risk to have their attorneys provide them with an opinion concerning any potential liability. Such an opinion will go well beyond the treatment given in this text.

One of the most frustrating issues faced by companies today concerns insurance policy renewal and its interplay with the Y2K problem. Gahtan treats five types of insurance/liability coverage: (i) property damage (including business interruption); (ii) general commercial liability insurance; (iii) directors' and officers' liability insurance; (iv) professional errors and omissions coverage; and (v) fiduciary liability. The discussion of insurance should adequately brief top level executives and managers as to the potential pitfalls their companies may face concerning insurance coverage. While the discussion is comprehensive, it does not assist companies currently facing limited offerings by their insurers.

Chapter 9 deals with employment issues, but not from a legal perspective. Rather, this five-page chapter outlines the problems associated with employing staff—i.e., programmers and information technology specialists—who are capable of effectively debugging source code, often in languages such as COBOL that are no longer widely
used in developing software applications. The chapter discusses various compensation packages and other strategies that can be used to attract these people, and it weighs the costs and benefits associated with hiring employees versus independent contractors. It is not clear why Gahtan has separated Chapter 9 from Chapter 14, which is entitled "Contracting for Year 2000 Services." The latter chapter provides a detailed account of what to do in cases where one is seeking to contract for year 2000 services. Items discussed include the various parties, services, deliverables required, ways of managing the work, pricing and payment terms, as well as acceptance/testing procedures. Chapter 14 concludes by touching on several specific legal concerns that should be addressed by way of contract when obtaining such services. Among the items discussed are the types of rights and warranties to be included in such contracts, the nature of ownership of the work under the law, controlling one's liabilities, what remedies may be sought in cases of breach of contractual obligations, termination clauses, as well as methods of dispute resolution. These items are cursorily discussed, each taking up one to two pages of text. Other issues that are given even shorter mention include insurance, confidentiality, and the use of foreign providers and the various ramifications that arise when contracting with these entities (e.g. privacy issues, political stability concerns, withholding-tax issues, etc.).

Chapter 10 addresses the Y2K problems associated with licensing software from third party developers. In many cases, larger companies will have licensed, rather than owned, the software that is posing the potential Y2K problem. In a software licensing situation, a host of issues arise with respect to repairing Y2K problems. First, one may not have the actual source code needed to properly debug the program in question. Second, one may not have the requisite rights (in this case copyrights) to perform fixes oneself or to contract them out to a third party. In other words, only the party holding these rights will be permitted, by law, to apply these fixes. Unfortunately, the book provides a very short and inadequate treatment of these issues. In fact, when citing one of the exemptions in the Copyright Act, the book incorrectly cites it as section 27(1), when the proper provision is section 30.6. Nonetheless, even under the old Copyright Act, the provision should have properly read section 27(2)(i). Notwithstanding the typographical error, the book fails to address the language of the section, which only permits modification of a computer program without the copyright owner's authorization where it is being translated into "another computer language". This is a crucial hurdle that is never explained. The remainder of the chapter addresses testing issues and ownership of modifications. When addressing the latter issue, the book importantly flags the issue of ownership of copyrights as being different in an employment situation as compared to a situation involving an independent contractor. In the former, the employer is deemed to be the owner of the copyright in the work (i.e., software), whereas in the latter, the independent contractor is the deemed owner.

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8 *Bill C-32, An Act to amend the Copyright Act*, 2d Sess., 35th Parl., 1996 (assented to on 25 April 1997). The passage of this Bill, though occurring before the publication of the book, likely came into force following the writing of the manuscript.
Chapters 11 and 12 deal with the contracts one may have with suppliers of information technology products. The chapters provide a solid review of the various types of clauses one may find in such contracts, including limitations on supplier liability, various types of warranties, limitation-period clauses, termination clauses, and other terms that may affect a Y2K claim. There are also brief tips on strategies and tactics that may be used in challenging such clauses. As with much of the content of the book, the information provided is sufficient to generally inform and provide the tools necessary to identify potential problem areas. The book, however, cannot serve as a replacement for proper legal advice; in fairness, it never claims to do so.

Chapter 13 is a short chapter that provides general tips on how one might negotiate Y2K compliance clauses with new and existing suppliers of information technology products. Outsourcing arrangements are also treated.

Chapter 15 deals with mergers, acquisitions, and financings. In today's economic climate, this chapter is extremely important. In fact, some of the most active Y2K activity takes place with respect to financing of mergers and acquisitions. Banks, for example, have been among the most ruthless economic actors in dealing with the Y2K problem. The chapter begins with a general discussion of the issues related to mergers, acquisitions, and financings. For example, conducting a due diligence review and agreeing upon appropriate warranty language are crucial elements of these processes. Both are treated in depth. A helpful due diligence review checklist is also provided. The chapter ends with a list of items to look for when identifying high Y2K-risk companies. These sorts of checklists, though not frequently provided, are extremely helpful to the readership that the book is trying to target: the executive business sector.

Chapter 16 provides a meta-view that a corporation must take when facing the Y2K problem. It discusses the implementation of Y2K compliance projects or programmes. It discusses a number of high-level corporate tools, including a Y2K steering committee, project management advice, the use of corporate policies, technical and legal audits, awareness programmes, as well as document-retention issues. The topic of industry Y2K committees is also dealt with. As is the case in the rest of the book, these issues are given roughly one to two pages of treatment each.

Chapters 17, 18, and 19 take a different approach. They deal with external Y2K compliance issues: the approach one must take with business partners and other third parties. The chapters deal respectively with Y2K inquiry letters, responses that should be provided to such letters, and the review of these responses. For most readers, these will be the most relevant chapters in the book. Most of the activity concerning the Y2K problem in business today involves the sending of and responding to Y2K status requests. These often take the form of lengthy checklists and questionnaires, but also may be provided in the form of simple letters. The book presents the various approaches to take when drafting and responding to inquiry letters. The material should be enough to get most readers started on drafting a response. However, as with the material throughout the book, obtaining expert advice from a legal professional is required.

Chapter 20 deals with Y2K litigation. As discussed at the outset of this review, due to the date of publication (and likely writing of the manuscript), there is not much
Interesting to recount in the litigation chapter. Readers will undoubtedly anxiously turn to the sub-section of the chapter entitled “Actual Litigation”. Unfortunately, the only case discussed in any depth is the Produce Palace International v. TEC-America Cash Register Inc., and All American Cash Register Inc.\(^9\) Of course, as discussed, since the writing of this book, there have been many cases filed and some even settled. This number will only increase exponentially as the year 2000 draws nearer. The remainder of the chapter discusses the claims made in the Produce Palace case that are somewhat helpful in considering how one may frame a Y2K claim. The Produce Palace case casts a wide net and tries to cover all potential Y2K claims with respect to a software development situation.

Chapter 20 concludes with a discussion of class-action suits that have been brought in a number of jurisdictions. In fact, the number of class-action cases on this matter currently exceeds the number of non-class-action lawsuits in the United States. The book briefly mentions two such suits that were, at the time of the book’s writing, in their infancy. There is also a discussion as to why class-action suits are more likely to arise in the United States than in Canada.

A helpful sample Y2K warranty clause, Y2K definitions, and Y2K sources of information on the Internet round out the book in its Appendix.

**D. What’s Missing?**

As predicted in the book, Y2K-related conflicts between businesses will crystallize in the near future, eventually resulting in lawsuits. These predictions, it seems, are now being realized south of the border. There are presently dozens of lawsuits related to the Y2K problem that have been filed in various courts across the United States. It is likely that many more will exist by the time this review is in print.

The Y2K-related claims filed thus far have been based on a variety of causes of action including breach of contract, breach of express warranty, breach of implied warranty of merchantability, fraud, and negligence. Thus far, none of the actions have been tried on the merits. Therefore, there are no judgments upon which to discern any juridical trend.

A number of these suits are class-action lawsuits that may result in substantial losses for the defendants should they lose. Thus far, a majority of the lawsuits have been filed against companies that have discovered a Y2K problem in the software that they have sold and are now trying to collect a fee for correcting the error.\(^{10}\) One such suit has been filed against Symantec, the developer of the popular Norton anti-virus product. In this class-action suit, the plaintiffs have alleged that certain versions of the anti-virus programme would not function once the date clock on the computer from which they were running moved to the year 2000. Similar suits were filed against In-

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\(^{10}\) Cameron v. Symantec, No. 772482 (Cal. Super. Ct., Santa Clara County, filed 4 May 1998).
tuit, the makers of the popular Quicken personal finance package, but these actions have been recently dismissed since the plaintiffs have not yet suffered any losses.

It is expected that as the clock moves closer to the year 2000, the nature of Y2K lawsuits will change. The remedies claimed also will be expanded from simply demanding that the software be fixed to claims for incidental damages and loss of business opportunities. Some recent American estimates state that the amount of money paid out in damages through lawsuits could run as high as $US 2 trillion.

Another trend worth noting is that the software consulting industry that has grown up around fixing the Y2K problem is also potentially susceptible to claims by dissatisfied consumers. Y2K programming consultants and software manufacturers should be cautious in making claims to clients that the Y2K problem has been adequately dealt with. Otherwise, these consultants and software manufacturers run the risk of being sued under tort or breach of contract.

Another important omission is the lack of any discussion in the book concerning multi-jurisdictional problems. In today’s global economy, goods—and especially information—travel from country to country with relative ease. Many products being purchased, especially software, may come from another jurisdiction. Gahtan does not treat the possibility of trans-jurisdictional Y2K problem claims. While this problem may seem esoteric to some, the reality—once Y2K litigation begins in earnest—may prove to be quite different.

On a related topic, it is important to note that the book only treats the Y2K problem from a Canadian and American perspective. It is likely that the book was solely intended for a Canadian readership, but as with all legal discussion in the information technology field, the experience south of the border cannot be ignored. Consequently, the American Y2K problem experience figures prominently in the book, yet the book does not treat it with adequate depth. American books on the subject are much more comprehensive. Readers from other jurisdictions, such as European and Asian countries, will find the book helpful in terms of finding a broad methodology with which to approach the Y2K problem, but will find little else in the book that is helpful. That said, this little book attempts to do a lot in a short space, and it would be ridiculous to expect it to treat all of the world’s jurisdictions and their idiosyncrasies. Nevertheless, a prefatory discussion about the potential trans-jurisdictional nature of the Y2K problem and the varied jurisdiction-dependent approaches that may apply would have been helpful.

As with the tracking of cases, the book is also somewhat out of date on the legislative front. On October 19, 1998, the American government passed the Year 2000 Information and Readiness Disclosure Act." This is the first piece of Y2K-specific legislation passed in the United States, the most important Y2K problem jurisdiction due to its economic dominance. The Act attempts to encourage the flow of information between organizations so that they may better prepare themselves for passage

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11 Supra note 5.
into the year 2000. The Act specifically provides for the safe harbouring of statements made regarding Y2K compliance. Any statement regarding Y2K compliance should be marked on its face with the phrase “Year 2000 Readiness Disclosure.” This will protect a Y2K statement (made in good faith) from being used as evidence in an action against a supplier of a good or service (subject to some limitations). The Act also provides for a safe harbour mechanism to protect past statements made between January 1, 1996 and December 3, 1998, providing certain actions were taken prior to December 3, 1998. Following the December 3, 1998 deadline, companies that received the safe harbour notice have a period of time within which to object to the safe harbouring notice if they had relied on the information provided to them concerning Y2K compliance in making business decisions. The American legislation is short but complex in terms of its requirements and deadlines. On account of the global nature of business today, any company—whether American or not—doing business with an American company or whose products flow into the United States should be aware of the potential applicability of this legislation.

More recently, another Bill has been proposed in the United States House of Representatives regarding the Y2K issue. The Bill, known as the Year 2000 Readiness and Responsibility Act, was introduced on February 23, 1999. The Bill seeks to absolve many companies of responsibility for damages arising due to Y2K-related problems. If passed, the Bill will require that plaintiffs give defendants notice of the Y2K defect and damage suffered prior to filing any Y2K-related action, so that the defendant can attempt to repair the damage before the lawsuit begins. The Bill also encourages parties to resolve disputes through alternative dispute resolution techniques, establishes a ceiling on recoverable damages, and does not allow plaintiffs to recover damages for failures they could reasonably have avoided in light of the information of which they were aware, or of which they could reasonably have been aware.

The book also omits any discussion concerning State legislative initiatives in the United States. However, these are of relatively minor importance to a Canadian readership and are not essential to the book’s ultimate objectives.

Conclusion

The Year 2000 Computer Crisis Legal Guide provides businesses and managers with a high-level guide they can use to navigate through the legal complexities associated with the Y2K problem. More often than not, the book will not provide a final answer to a Y2K question. It will, however, provide information about where to start looking. Although the book’s writing appears rushed and sometimes incomplete in places, this is to be expected due to the ever-evolving nature of the Y2K problem. Notwithstanding these comments, for those considering learning more about the Y2K problem, there is little choice. There are only a few books on the market, and Gahtan’s

17 Supra note 6.
work stands out as the pre-eminent Canadian source of commentary on the problem. While there are many newspaper articles and other material available on the Internet and in law journals, Gahtan's book is currently the most comprehensive and easily accessible guide available. In other words, one has little choice but to purchase it.