Special contracting concerns

Correspondence, including emails, may create legal liability. The casual culture surrounding the use of emails has resulted in an increased use of informal communication in business. An organisation may wish to consider informing employees as to how the employee can inadvertently end up binding the organisation to commitments through either the laws of contract or through "misleading or deceptive" conduct as discussed previously.

Conclusion

This article has mapped some of the more important issues to be addressed in preparing, implementing and monitoring an Internet strategy. It also highlights some of the legal compliance peculiarities associated with the use of the Internet and electronic mail. Care should be taken to not assume the Internet is simply an extension of the telephone or fax machine.

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Software Copyright Issues crystallised in a landmark decision

John Vincent Sinisgalli

A ruling vital to the Australian computer software industry was delivered by the Full Court of the Federal Court of Australia on 4 June 1997 in Powerflex Services Pty Ltd and Ors. v. Data Access Corporation (VG 295 of 1996) ("The Powerflex case"). The decision is justly referred to as a landmark decision.

Fundamental issues

The Court comprised Chief Justice Black and Justices Hill and Sundberg. The Court was required to determine complex questions of law relating to the application of the *Copyright Act* to computer programs. The fundamental importance of the decision is that the Court affirms the principle that copyright law does not protect *an idea*, only *the expression of an idea*. The Court is to be congratulated for applying this principle to an extremely complex issue with great clarity and certainty.

The difficult task faced by Court was the analysis of two competing software programs with a view to determining the distinction between the concepts and functions of each of them and the expression of those concepts and functions. As an Appellate court, the Court had to rule on the submissions of the appellant (Powerflex) contending that the trial judge was wrong to find that Powerflex had infringed the copyright of Data Access Corporation by use of reserved words of the vocabulary of the Dataflex language and other features of the program .

CAN COPYRIGHT PROTECT A LANGUAGE?

Traditionally the protection of ideas is the realm of patent law. Fundamentally, patents are granted to protect physical objects, inventions or processes. Words which constitute the vocabulary of a language are in fact no more than tags which identify a function or underlying concept. It is submitted that patent law will not and should not protect the words of a computer language as the words are nothing more than tags descriptive of function and are not utilitarian ideas or objects requiring protection. An illustration of this point would be if simple words of the English language were patented by their first user (e.g. "print") thereby depriving other users of that language from the use of that word. The whole point of a language is to enable the users of the language to communicate with each other. This fosters a growth of expression by use of the language. The fact that the language is a computer language should not create a monopoly over the use of that language. If it did, the users would be permanently trapped by the devisor of that language.

Powerflex carefully studied the functions of the Dataflex language and deliberately set out to develop a superior program. It was necessary to use the same words constituting the Dataflex language to attract existing users of the Data Access program to Powerflex. In common parlance Powerflex set out to build and sell a better mouse trap. In the view of many existing customers this was achieved and they switched to Powerflex. In late 1993 Data Access had decided it had lost enough customers and took action to assert its belief that the copyright in the Dataflex program had been infringed.

RESULT AT TRIAL

This litigation required the trial judge to decide issues which had rarely been dealt with judicially anywhere in the world. Not surprisingly, this was a difficult task and the software industry watched closely. The trial judge was required to determine whether the words found commonly in the Dataflex program and Powerflex program were themselves computer programs. This question requires application of the definition of the expression *"computer program"* in section 10 of the Copyright Act 1968 (Commonwealth of Australia). That definition refers to an expression of a set of instructions in any language, code or notation intended to cause a

computer to perform a particular function.

At trial and on the affidavit material of expert and other witnesses it was clear that whilst the words of the computer languages were common, the source code of the Powerflex language was entirely original, different from and not a copy of the Dataflex source code.

The trial judge found that the Powerflex program was an infringement of the Data Access copyright. He found that each of 192 individual words was in itself a computer program which, when typed into the computer, caused it to perform the function identified by that particular word. It is submitted that this indicates a misunderstanding of the nature of computers and their operation, giving protection to functionality, not expression.

Words found to constitute "computer programs" included "CHART", "CHECK", "LINE", "NAME", "SAVE", "TOTAL" and more complex words including "CHARTFORM", "ERASEFILE", "ENDGROUP" and "FILE_SIZE". The finding of a word as constituting a literary work is an odd result. In Exxon Corporation v. Exxon Insurance [1981] 3 All E R 241 the UK Court of Appeal dealt with a contention that the word "Exxon" — an invented word - was an original literary work. The Court held that it was not a literary work as it conveyed no information, provided no instruction and gave no pleasure. Oliver L.J., in interpreting "original literary work" stated: "In my judgment it is not necessary, in construing a statutory expression, to take leave of one's common sense" (page 249).

Having found an infringement to exist, an injunction was subsequently ordered by the trial judge preventing the use of the infringing words by Powerflex.

On June 4, 1996 a differently constituted court of appeal, in an important decision, granted Powerflex a stay of the injunction pending determination of the appeal. (This decision is important in determining the principles applicable in obtaining a stay pending appeal in the Federal Court of Australia - 137 A.L.R. 498).

APPEAL TO THE FULL COURT

In a unanimous joint decision the Full Court ruled that the Powerflex appeal be allowed on the central issue of whether the words (or commands) each or collectively constituted **computer programs**. With great clarity the Court determined that each of the words was nothing more than a cipher and could be replaced by any concatenation of letters, e.g. *XZB*, but for ease of recollection by the user. The true set of instructions was the underlying source code and object code which caused the computer to perform the function flagged by the common word. As the Powerflex source code was creatively written and not a copy, translation or adaptation of the Dataflex source code, there could be no infringement.

The Court found copyright infringement in one feature only, the standard Huffman Compression table. This relatively minor feature of the Powerflex program was not copied but derived from a careful study of Dataflex. It was essential for compatibility of the respective compression functions that an exact table was used in both programs. The Court's finding of infringement of this minor feature can be disputed on a number of grounds. For instance, first, that the table is a small part of a program and cannot stand on its own, thereby not being a work in itself and in any event is not a substantial part of a computer program. Secondly, the table can only be expressed one way thereby being an example of the merger of an idea and its expression. It is also arguable that the Standard Huffman Compression table is not a table or compilation in any practical sense and therefore should not be subject to a finding of copyright infringement.

On determination of the critical issues of the case the Court focused attention on the expression of the commands in various levels of code which caused the program to operate.

Compatibility was achieved in words or commands by computer programs which were written by Powerflex in inventive form but achieved the same or similar function as Dataflex. Function, however, was not subject of copyright protection.

The appellant also succeeded on other grounds of appeal. The Court found that other features of the program, namely file structures, Flexkeys and Macros were not infringements. The respondent failed on a cross appeal, claiming an error text table was an infringement.

IMPLICATIONS OF THE DECISION

It is submitted that, had the ruling of the trial judge stood, Dataflex would have been granted a monopoly over words of a language which it would have not been entitled to protect by use of patents - or copyright law.

The Full Court's reversal of the lower decision brings the law of software copyright closer into line with recent decisions in the United States of America. In particular the dispute between the giant computer corporations Lotus and Borland . The copyright legislation in the United States of America contains a specific provision which does not give protection to "methods of operation". While the Australian legislation contains no such provision, the Full Court was of the view that the United States provision simply codified general copyright law granting protection to the manner in which an idea is expressed and not the idea, i.e. the command or its method of operation.

A brief outline of the application of the Copyright Act to computer programs in Australia

Prior to 1984, computer programs in their code form (machine and object code) were not subject to protection under the present copyright legislation. Beaumont, J in the Apple case at first instance found that computer code in its binary form or machine readable form was not capable of being a literary work in the common sense of that phrase ([1983]

50 A L R 581). Therefore computer code was not protected by the Copyright Act. The High Court approved the decision on the basis of the Copyright Act prior to the 1984 amendment ([1986] 161 C L R 171). (Computer Edge Pty Ltd v. Apple Computer Inc.)

In 1984 *The Copyright Amendment Act* was proclaimed adding a new definition for "computer programs " so that a " literary work " was defined to include a computer program as meaning an expression, in any language, code or notation, of a set of instructions (whether with or without related information) intended, either directly or .....(indirectly) ....to cause a device having digital information processing capabilities to perform a particular function. This paraphrases the amendment .The reader is referred to section 10 of *The Copyright Act* .

The High Court in the Apple case decided the law as it stood prior to the amendment. The majority held that while **source code** was a literary work, **object code**, a machine readable form could not be treated by humans as a literary work. This ruling lead to calls to amend the copyright legislation to protect non human readable code. J.W.K. Burnside, Q C wrote in 1990: "By contrast, the amendments to the Copyright Act in the wake of the Apple case represented a quick fix solution. Although it was better than nothing, it could not be regarded as a perfect, or permanent, solution." (*The Australian Computer Journal*, Vol 22, No 4, November 1990 at page 141). The author contrasted the extension of copyright protection to other new forms of work as having been done with "some care and consideration ".

In any event the 1984 amendment was clearly stated to protect "**an expression**" in a machine readable form which would cause a computer "**to perform a particular function**". This is consistent with the fundamental dichotomy between the idea and the expression of the idea. A classic statement of this principle is : " Copyright does not extend to ideas or schemes or systems or methods ; it is confined to their expression ; and if their expression is not copied the

copyright is not infringed. " (Lindley, LJ in Hollinrake v Truswell [1894] 3 Ch. 420 at 427). Whilst at times the distinction may be difficult to determine the principle is clear and has developed strongly. For instance the doctrine of merger is well known in copyright. Put simply if an idea can only be expressed essentially one way the expression merges with the idea and becomes unprotectable.

American courts have dealt with the doctrine of merger and its application to computer programs. A process of abstraction of the idea, filtration of non expressive elements of the program and comparison of the competing programs was applied in Computer Associates v Altai Inc. (23 I.P.R. 385). The court held "The merger doctrine applies to computer programs. Thus, when there is essentially only one way to express an idea, the idea and its expression are inseparable and no copyright protection will attach to the program.", approving the decision in Lotus Development Corp. v Paperback Software (740 F. Supp.37).

Accordingly, in comparing competing and possibly infringing software it is essential that only expressive elements of the program receive copyright protection.

The first case in Australia to be determined after the 1984 legislative change was Autodesk Inc. v Dyason and Kelly (1991 173 C.L.R.330). Ultimately this case turned on a program known as Widget C .

Widget C was a series of 127 binary digits electronically stored in a hardware device. In effect the series of digits was regularly checked by the AutoCad lock. If the sequence of digits were incorrect the Autodesk program would instantly terminate. Kelly 's program reproduced the same 127 bits thereby unlocking the AutoCad device. The Court found that Kelly's program was an infringement of Autodesk's copyright, the literary work being a program consisting of a string of binary digits.

Subsequently, Dyason and Kelly sought to re open the matter before the High Court on the basis that the Courts findings were based on

grounds which had not been properly argued particularly in a novel and complex area of the law. A majority of the Court refused to set aside the earlier decision. (See Autodesk v Dyason (No 2) [1992] 176 C.L.R. 300). Some caution should be applied to avoid Autodesk being interpreted too widely. In strong dissenting judgments, Chief Justice Mason stated "In the result, I incline to the view that, in the light of the more elaborate arguments presented in this application, it is arguable that the respondents have not infringed the appellant's copyright in the Widget C program." (Page 307). Mason CJ was of the view that the judgment should be reopened. So too was Deane J, who stated : "What is important for present purposes is that no finding had been made in the courts below that Widget C's look up table constituted a substantial part of the computer program" (Page 312). Deane, J found that the respondents had not had "a clear and adequate opportunity to place before this Court full submissions about the correctness of the proposition which constituted the basis of the Court's ultimate decision against them " (Page 314). The majority held there was no substantial injustice. Gaudron J held that the 127 bit look up table was the linchpin of the program. "It was the critical part of the instructions in that the other parts depended on and were made by reference to it." (Page 330).

Methods of Operation

It is not the purpose of copyright law to protect ideas, functions or methods of operation. The United States legislation has a specific provision stating this principle. Statute 17 United States Code section 102 (b) states: "*In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated or embodied in such work*".

Australian copyright legislation has no such provision. However, the Full Court in Powerflex stated that the U.S. section 102(b) is consistent with the

general law of copyright in Australia.

This leads to the important decision in the United States Court of Appeals in the case of Lotus Corp. v Borland Int Inc. (33 I.P.R. 233). The Lotus v. Borland case dealt with the copying by Borland of the Lotus 1-2-3 command hierarchy. Borland contended in its defence that it had "lawfully copied the unprotectable menus of Lotus 1-2-3" (Page 239). The Court accepted Borland's argument and found no infringement. Stahl J. stated: "We do not think that "methods of operation" are limited to abstractions; rather, they are the means by which a user operates something... The "expressive" choices of what to name the command terms and how to arrange them do not magically change the uncopyrightable menu command hierarchy into copyrightable subject matter" (Page 243). The Court approved an earlier classic statement made by the US Supreme Court in Feist Publications Inc. v. Rural Tel Serv Co. (499 U.S. 340 at 349) that: "The primary objective of copyright is not to reward the labour of authors, but to promote the progress of science and useful arts. To this end copyright assures authors the right to their original expression, but encourages others to build freely upon the ideas and information conveyed by a work".

In the Powerflex case, users of the Dataflex program had written their applications using the reserved words chosen by Dataflex. If those words were "computer programs" either individually or collectively, users of Dataflex would become trapped customers. The ruling of the Full Court enables users to build on the value of their own works, and to avoid being locked into a product, when a compatible and feasible alternative was available. The Court in Lotus v. Borland referred to the "QWERTY" keyboard being the accepted standard, Boudin J stated "Better typewriter keyboard layouts may exist, but familiar "QWERTY" keyboard dominates the market because that is what everyone has learned to use", (Page 247)

Since the 1984 amendment there has been considerable discussion as to the appropriate extent of protection for computer programs. The Commonwealth had in 1983 established The Copyright Law Review Committee. In 1988 a review of Computer Software Protection was instigated as a result of terms of reference stated by The Attorney General. The C L R C published its report in 1995.

The Committee has recommended that the present definition in section 10 of the Act be replaced by the United States definition as follows:

"A "computer program" is a set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result." (C.L.R.C. Report, Page 63). The Committee indicated that consistency with Australia's trading partners in copyright law was a desirable outcome.

The clarity of the Full Court's reasoning in the Powerflex case ensures that this decision is in fact a landmark decision. The judgment is certain to be welcomed by those who favour open and interoperable software systems. This will encourage software writers to produce better systems with clear knowledge of the boundaries and operation of the Australian Copyright legislation .

An appeal to the High Court may eventuate.

An application for Leave to Appeal to the High Court has been filed by Data Access Corporation , seeking leave on two grounds, one related to language and "words" constituting computer programs, and another on grounds relating to "Macros" used in the computer programs. Other points on which Data Access Corporation was unsuccessful do not form part of the grounds for leave to appeal. It is likely that the application will be heard in late 1997.

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