

Autodesk Inc v Dyason (No 2) [1993] HCA 6

HIGH COURT OF AUSTRALIA

MASON CJ, BRENNAN, DEANE, DAWSON AND GAUDRON JJ

MASON CJ:

I agree with the reasons given by Dawson J. for concluding that the respondents have failed to establish that, without fault on their part, they were afforded no opportunity of being heard on the questions which proved to be decisive in the determination of the appeal in *Autodesk Inc. v Dyason*.¹

However, in my view, that conclusion does not dispose of the respondents' application for a rehearing of the three questions identified as (a), (b) and (c) in the reasons for judgment prepared by Dawson J. The exercise of the jurisdiction to reopen a judgment and to grant a rehearing is not confined to circumstances in which the applicant can show that, by accident and without fault on the applicant's part, he or she has not been heard. It is true that the jurisdiction is to be exercised with great caution,² having regard to the importance of the public interest in the finality of litigation. It is equally true, as this Court said in *Wentworth v Woollahra Municipal Council*,³ that "[g]enerally speaking, it will not be exercised unless the applicant can show that by accident without fault on his part he has not been heard."

But these statements do not exclude the exercise of jurisdiction to reopen a judgment which has apparently miscarried for other reasons, at least when the orders pronounced have not been perfected by the taking out of formal orders. So much was acknowledged by Brennan, Dawson, Toohey and Gaudron JJ. in *Smith v N.S.W. Bar Association*⁴ when their Honours said: "if reasons for judgment have been given, the power is only exercised if there is some matter calling for review." It is sufficient to give three examples. In *In re Harrison's Share under a Settlement*,⁵ orders were set aside following a decision of the House of Lords which overruled

¹ (1992) 173 C.L.R. 330.

² *Wentworth v Woollahra Municipal Council* (1982), 149 C.L.R. 672, at p. 684; *State Rail Authority of N.S.W. v Codelfa Construction Pty Ltd* (1982), 150 C.L.R. 29, at p. 38.

³ (1982) 149 C.L.R., at p. 684.

⁴ (1992) 176 C.L.R. 256, at pp. 264-266.

⁵ [1955] Ch. 260.

authorities on the basis of which the orders had been made. In *New South Wales Bar Association v Smith*,⁶ the New South Wales Court of Appeal reconsidered orders previously made in view of an argument that the Court had mistakenly assumed that particular evidence had not been given at earlier hearings.⁷ And, in *Pittalis v Sherefettin*,⁸ a judge recalled orders the day after they were made upon determining that he had "erred in a material matter in his approach to the case".⁹

These examples indicate that the public interest in the finality of litigation will not preclude the exceptional step of reviewing or rehearing an issue when a court has good reason to consider that, in its earlier judgment, it has proceeded on a misapprehension as to the facts or the law. As this Court is a final court of appeal, there is no reason for it to confine the exercise of its jurisdiction in a way that would inhibit its capacity to rectify what it perceives to be an apparent error arising from some miscarriage in its judgment. However, it must be emphasized that the jurisdiction is not to be exercised for the purpose of re-agitating arguments already considered by the Court; nor is it to be exercised simply because the party seeking a rehearing has failed to present the argument in all its aspects or as well as it might have been put. What must emerge, in order to enliven the exercise of the jurisdiction, is that the Court has apparently proceeded according to some misapprehension of the facts or the relevant law and that this misapprehension cannot be attributed solely to the neglect or default of the party seeking the rehearing. The purpose of the jurisdiction is not to provide a backdoor method by which unsuccessful litigants can seek to reargue their cases.

The present case is a pioneering step into a technically and conceptually complex world. That is partly because the 1984 amendments to the *Copyright Act 1968 Cth* extended copyright protection to computer programs on the footing that they were literary works and is one reason why there has been difficulty in ascertaining precisely how the appellants presented their case. *Autodesk* was the first decision of this Court dealing with the amendments made to

⁶ Unreported, 4 July 1991.

⁷ The Court of Appeal refused to set aside its orders but an appeal to this Court was successful.

⁸ [1986] Q.B. 868.

⁹ *ibid.*, at p. 880. The Court of Appeal upheld the decision to review the matter, though disagreeing with the judge's ultimate conclusion.

the *Copyright Act* in 1984. It was only the second decision of this Court dealing with the issue of copyright protection for computer programs, the decision in *Computer Edge Pty Ltd v Apple Computer Inc.*¹⁰ being made on the basis of the law as it stood before the 1984 amendment. And the precise interpretation of the legislation and its application in this case are likely to have a significant effect on the future development of the computer industry in Australia.

The decision in *Autodesk* confirmed two fundamental principles. First, the definition of a "computer program" by reference to "an expression of a set of instructions" should be understood as conferring protection upon the set of instructions itself — which must be identified with some precision — but as doing so in a way which is adapted to the nature of copyright. Thus, the protection of computer programs is to conform to the dominant principle of copyright law that protection is given not for ideas, but only for the form of expression.¹¹ However, as the judgment of Mason C.J., Brennan and Deane JJ. makes clear, this distinction must not be applied too strictly.¹² A distinction needs to be drawn between the relevant set of instructions and the form of storage or representation of the instructions, so that a person who reproduces a set of instructions in a different form — such as by turning source code into object code — does not escape infringement. The object of protection is the computer program, not just the particular form of storage or representation chosen by the author.

The second fundamental proposition confirmed in *Autodesk* derives from the first. Functionality is not the proper object of copyright protection. As Dawson J. stated in *Autodesk*, the purpose or function of a utilitarian work is its idea, while the method of arriving at that purpose or function is the expression of the idea.¹³

A central conclusion in *Autodesk* was expressed by Dawson J. as follows:¹⁴

Whilst the 127-bit look-up table does not of itself constitute a computer program within the meaning of the definition — it does not by itself amount to a set of instructions — it is a substantial part of Widget C and its reproduction in the Auto Key lock is a

¹⁰ (1986) 161 C.L.R. 171.

¹¹ Described as "trite law" by Lord Hailsham of St Marylebone in *L.B. (Plastics) Ltd. v Swish Products Ltd.*, [1979] R.P.C. 551, at p. 629.

¹² *Autodesk* (1992), 173 C.L.R., at pp. 335-336.

¹³ (1992) 173 C.L.R., at p. 345.

¹⁴ *ibid.*, at p. 346.

reproduction of a substantial part of that program.

All members of the Court expressed their agreement with this conclusion. It is precisely this conclusion which is attacked by the respondents. The attack is on two grounds: first, that the 127-bit look-up table in Widget C not only does not amount to a set of instructions but is simply data; secondly, that on no proper understanding of the technology is the look-up table a substantial part of the Widget C program, particularly when one takes into account the nature of the look-up table as data and not instructions.

The program known as Widget C is one of several programs which together comprise the Autocad software. Widget C is present because it forms an integral part of the locking and unlocking device which is involved in the Autocad lock. Widget C is a large program of 20,000-30,000 bytes. It comprises instructions to the computer requiring it to send out a challenge to the Autocad lock. The challenge which is sent out is a sequence of electrical impulses which, in binary notation, can be represented as a series of ones and zeros. The lock responds to this challenge also in the form of an electrical signal which may be represented as either ones or zeros. The string of ones and zeros sent back by the lock is different from the string of ones and zeros sent by the computer to the lock. Widget C receives the response and uses the 127-bit look-up table to check whether it is the expected response. The 127-bit look-up table consists of 16 bytes in the entire Widget C program of 20,000-30,000 bytes. If the response is correct, the program continues to run; if the response is incorrect, the program ceases operation.

It is clear that the phrase "substantial part" refers to the quality of what is taken rather than the quantity.¹⁵ In *Ladbroke (Football) Ltd. v William Hill (Football) Ltd.*, Lord Pearce stated:¹⁶

Whether a part is substantial must be decided by its quality rather than its quantity. The reproduction of a part which by itself has no originality will not normally be a substantial part of the copyright and therefore will not be protected. For that which would not attract copyright except by reason of its collocation will, when robbed of that collocation, not be a substantial part of the copyright and therefore the courts will not hold its reproduction to be an infringement. It is this, I think, which is meant by

¹⁵ *Hawkes & Son (London) Ltd. v Paramount Film Service Ltd.*, [1934] Ch. 593; *Ladbroke (Football) Ltd. v William Hill (Football) Ltd.*, [1964] 1 W.L.R. 273; [1964] 1 All E.R. 465; *Greenfield Products Pty Ltd v Rover-Scott Bonnar* (1990), 95 A.L.R. 275, at p. 293; 17 I.P.R. 417, at p. 436; *Dixon Investments Pty Ltd v Hall* (1990), 18 I.P.R. 481.

¹⁶ [1964] 1 W.L.R., at p. 293; [1964] 1 All E.R., at p. 481.

one or two judicial observations that "there is no copyright" in some unoriginal part of a whole that is copyright.

As this statement makes clear, in determining whether the quality of what is taken makes it a "substantial part" of the copyright work, it is important to inquire into the importance which the taken portion bears in relation to the work as a whole: is it an "essential" or "material" part of the work?¹⁷

In this case, it is argued by the appellants that such an inquiry compels an affirmative answer as the look-up table is essential to the operation of the Autocad locking mechanism. Such an argument, however, misconceives the true nature of the inquiry and seeks to re-introduce by another avenue an emphasis upon the copyright work's function. True it is that the look-up table is essential to the functioning of the Autocad lock. However, in the context of copyright law, where emphasis is to be placed upon the "originality" of the work's expression, the essential or material features of a work should be ascertained by considering the originality of the part allegedly taken. This is particularly important in the case of functional works, such as a computer program, or any works which do not attract protection as ends in themselves (e.g., novels, films, dramatic works) but as means to an end (e.g., compilations, tables, logos and devices).¹⁸

On this approach, the arguments of the respondents as to the nature of the look-up table, not presented in any detail at the earlier hearing in this Court, have considerable importance. The respondents argue that the look-up table does not constitute instructions and, as such, "expression", which is capable of becoming the subject of copyright, but is simply data used to provide the basis of a comparison between the response from the lock and the expected response which determines whether the Autocad program continues to operate. The respondents allege that the nature of the look-up table as data was accepted by experts for both sides at the trial. It is by no means certain that that is true; however, it is also the case that the attention of expert witnesses was not drawn to this precise question. In any event, the question is not one that is necessarily to be resolved by recourse to expert opinion, as the categorization

¹⁷ Ricketson, *Law of Intellectual Property* (1984), p. 169.

¹⁸ See, e.g., *Mirror Newspapers Ltd. v Queensland Newspapers Pty Ltd*, [1982] Qd R. 305; *Klissers Farmhouse Bakeries Ltd. v Harvest Bakeries Ltd.* (1985), 5 I.P.R. 533, at p. 548.

of the look-up table as either data or instructions is relevant only in the context of the definition in the *Copyright Act* which provides that the protected computer program is "an expression of a set of instructions". It is a legal issue to be resolved by the application of the principles of copyright law.

On the basis of arguments presented by the respondents on this application and which were not presented to the Court at the hearing of the appeal except in summary written form, comprising little more than one page, in response to the Registrar's letter which is set out in the reasons of Dawson J., I am inclined to the view that it is arguable that the 127-bit look-up table is simply data or information which is accessed and used by the instructions that constitute the program Widget C. The instructions are functionally useless without the data; the Widget C program would not fulfil its role in the absence of the look-up table. But this may not mean that the look-up table forms part of the instructions or is a "substantial part" of the protected copyright work for the purpose of determining an alleged infringement. The look-up table is not responsible for the challenge which is sent to the lock; the program makes reference to the table to ascertain whether the response received is as expected. In the circumstances, it is perhaps possible that, in qualitative and not functional terms, the look-up table is not a material or key part of the program; the act of reproducing it may conceivably be akin to the reproduction of the material simpliciter in a table or compilation or the reproduction of something that is itself largely unoriginal.¹⁹

There is the question whether this approach is affected by the inclusion in the definition of "computer program" of the words "(whether with or without related information)". Counsel for the respondents argued that those words raised squarely the question whether "related information", not itself being instructions, is brought within the scope of the protection or is implicitly excluded from the scope of the protection. That way of wording the question may conceal a further issue: even if one assumes that the related information is to be considered as part of the computer program, a court must still decide, by application of general principles,

¹⁹ See, e.g., *Ladbroke (Football) Ltd. v William Hill (Football) Ltd; Warwick Film Productions Ltd. v Eisinger*, [1969] 1 Ch. 508.

whether reproduction of that related information constitutes reproduction of a "substantial part" of the program.

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. This conclusion would not, in itself, justify a review or rehearing of the critical issues which were the subject of the decision pronounced on 12 February 1992 if all that could be said was that the respondents have now advanced satisfactory arguments in place of arguments which were formerly inadequate. As I have said, the jurisdiction to reopen is not to be exercised simply for the purpose of giving a party the opportunity to present a case to better advantage. However, this is an important and unusual case. As a result of a variety of factors, including the way in which the appellants' case was primarily argued, the effect on the parties of the letter sent by the Registrar of this Court and, not least, the complexity of the relevant technology at issue, relevant arguments were not presented or not presented adequately at the first hearing before this Court. The conclusion that the respondents were not denied an opportunity to present such arguments at that time does not conclude the issue. Although it can be said that the respondents should have sought to present oral argument on the matter raised in the Registrar's letter, the tenor of that letter did not invite such a response. The letter, which was drafted and sent at the direction of the members of the Court, was equivocal in its invitation to the parties to address submissions to the Court, as Dawson J. has noted, and also, by stating that *a* member of the Court had raised the particular issue, gave no indication of the significance which that issue ultimately assumed for *all* members of the Court. In addition, the letter also failed to prescribe any procedure in the event that the parties could not reach agreement as to whether the relevant submission had been advanced. With the advantage of hindsight and in the light of the written submissions lodged in response to that letter, the Court should have relisted the appeal for further argument before proceeding to judgment.

Accordingly, I consider that the Court should reopen the judgment for the purpose of reviewing or rehearing the issues which have been debated, namely, those identified as (a), (b) and (c) in the reasons of Dawson J. No injustice would be occasioned to the appellants by such a course.

BRENNAN J:

This Court has undoubted jurisdiction to recall a judgment which it has pronounced, at least prior to the formal entry of the judgment, if the judgment has been pronounced against a person who, without fault on the part of that person, has not had an opportunity to be heard as to why that judgment should not be pronounced.²⁰ The jurisdiction is exercised sparingly for it is important to bring litigation to finality in this Court.²¹ Nevertheless, natural justice would be denied if, in a case in which the stated conditions are satisfied, the judgment were not vacated.

It is desirable to add in the context of the present case a further observation about the opportunity to be heard. A court should not pronounce a judgment against a person on a ground which that person has not had an opportunity to argue.²² However, a sufficient opportunity to argue a ground is given when the ground is logically involved in a proposition that has been raised in the course of argument before the court or is to be considered by the court as an unconceded step in determining the validity of a conclusion for which one of the parties contends.²³ Of course, the precise ground which a court or judge assigns for a decision will frequently be formulated in terms different from the terms of a submission by counsel but, provided the ground has arisen in one of the ways mentioned, the court or judge may properly proceed to judgment without requiring the case to be relisted for further argument and without inviting supplementary submissions to be made.

In the present case, the proposition on which the appellants succeeded is that the respondents infringed the appellant's copyright in a computer program by reproducing in the Auto Key lock a part of the Widget C program, the relevant part of the Widget C program being the look-up table. That proposition was raised in argument in the Courts below. After argument on appeal to this Court, a letter sent by the Registrar to the parties expressly raised the question whether "the series embedded in the **eprom** in the Auto Key lock constituted a reproduction in a material form of a substantial part of **Widget.C**". The Court received supplementary

²⁰ *State Rail Authority of N.S.W. v Codelfa Construction Pty Ltd* (1982), 150 C.L.R. 29; *Wentworth v Woollahra Municipal Council* (1982), 149 C.L.R. 672, at p. 684.

²¹ The approach of Courts from which an appeal lies is not so strict, for it may be preferable to recall an unperfected but erroneous judgment rather than allow it to stand until it is quashed on appeal: see, e.g., *In re Harrison's Share under a Settlement*, [1955] Ch. 260, at pp. 282-284.

²² *Pantorno v The Queen* (1989), 166 C.L.R. 466.

²³ *University of Wollongong v Metwally [No. 2]* (1985), 59 A.L.J.R. 481, at p. 483; 60 A.L.R. 68, at p. 71.

submissions from the parties directed to that question. The Registrar's letter also drew attention to an observation by one of the Judges in the Full Court of the Federal Court that it was common ground that the respondents had not reproduced any part of the Widget C program. The Registrar's letter thereby put the parties on notice that, if that observation were correct, the question might not be open before this Court. By the clearest implication, if that observation were not correct, the question would be open before this Court. It is not to the point that the Registrar's invitation to make supplementary submissions was expressed contingently upon agreement by the parties that that question had been argued. The parties in fact made supplementary submissions in response to the letter, dealing with the issue whether the question identified by the Registrar's letter had been raised in the Courts below and addressing the substantive question. I need not repeat the references in the judgments of Dawson J. and Gaudron J. to the proceedings before the Courts below which demonstrate that the respondents not only had had, but had taken, an opportunity in each of those Courts to argue the question on which this Court ultimately decided the appeal against them.

It is one thing to reopen an appeal after judgment if the Court has reached a conclusion by adopting a proposition of fact or law which the unsuccessful party has not had an opportunity to argue. In that event, natural justice is denied and it can be said that the Court's jurisdiction to hear and determine the matter is not exhausted. But that is not the present case. Here the ground on which the appeal was determined had been argued in the courts below and had been the subject of submissions in this Court. The appeal was determined after it was fully heard. That being so, I find no jurisdiction to set aside the judgment already pronounced merely because it is submitted by the unsuccessful party that, on further argument, the Court would be satisfied that it had reached the wrong conclusion in law. In *University of Wollongong v Metwally* [No. 2]²⁴ this Court said:

Except in the most exceptional circumstances, it would be contrary to all principle to allow a party, after a case had been decided against him, to raise a new argument which, whether deliberately or by inadvertence, he failed to put during the hearing when he had an opportunity to do so.

²⁴ (1985) 59 A.L.J.R., at p. 483; 60 A.L.R., at p. 71. Similarly, it has been held that a party may be shut out from raising a claim or defence if that party, through negligence, inadvertence or even accident has failed to raise that claim or defence in prior proceedings when the failure was unreasonable: *Port of Melbourne Authority v Anshun Pty Ltd* (1981), 147 C.L.R. 589, at pp. 598, 602.

The decision of this Court in the present case was not given in ignorance or forgetfulness of some statutory provision²⁵ or of some critical fact. To entertain an application to reopen an appeal after judgment in order to consider further argument on an issue already decided would be to subvert the finality of litigation and to invite interminable arguments about the importance of the legal questions to be re-canvassed and the correctness of the answers to those questions already given.

It is therefore unnecessary to consider the respondents' submissions which outline the attack which would be made on the correctness of the judgment if the appeal were reopened. However, I am comforted in rejecting the application by the view that such an attack would not be likely to succeed. The submissions seek to canvass again the questions whether the sequence of digits stored in the **eprom** of the Auto Key lock copied, albeit indirectly, a substantial part of Widget C and whether that part was an element in a "set of instructions" as that term is used in the definition of computer program in s. 10 of the *Copyright Act 1968 Cth*. The definition reads:

"computer program" means an expression, in any language, code or notation, of a set of instructions (whether with or without related information) intended, either directly or after either or both of the following:

(a) conversion to another language, code or notation;

(b) reproduction in a different material form; to cause a device having digital information processing capabilities to perform a particular function.

The respondents would attack the judgment by advancing an argument that the sequence of digits in the look-up table should be regarded as data and should not be characterized as an element in a "set of instructions". As it is the reproduction in the **eprom** of the sequence of digits in the look-up table in Widget C which is said to be an infringement of the appellant's copyright in a computer program, the relevant question is whether the sequence of digits in the look-up table is an element in a "set of instructions".

²⁵ The kind of mistake which might make a decision per incuriam. Cf. *Morelle Ltd. v Wakeling*, [1955] 2 Q.B. 379, at p. 406.

Although the notion that copyright protects an expression of an idea rather than the idea itself is preserved in the definition of "computer program", the definition itself invites consideration of the effect on the computer of the electronic signals the expression of which constitutes the computer program. Using metaphor, the definition requires that the electronic signals should constitute a "set of instructions intended to cause a device having digital information processing capabilities to perform a particular function". Widget C consists of a sequence of electronic signals which are not amenable to variation by keyboard operation and which cause a computer (i) to run the **Autocad** application when the responses received from a peripheral device (an **Autocad** lock or an Auto Key lock) correspond with the look-up table and (ii) not to run the **Autocad** application when the responses from the peripheral device do not correspond with the look-up table. If the look-up table were not part of Widget C, the electronic signals generated by Widget C would not cause the computer to perform in that way. The entire sequence of electronic signals which causes the computer to run the **Autocad** application comprises the electronic signals generated by the computer when Widget C is running, including the electronic signals which are transmitted to the peripheral device, and the electronic signals which are generated by and transmitted from the peripheral device. To succeed in challenging the correctness of the judgment, the respondent would have to demonstrate that the electronic signals should be divided into two categories, some of them being a "set of instructions" and others being of a different character. It is immaterial that some electronic engineers may classify some of those electronic signals as data. Once a discrete function of the computer is identified — here, the running of the **Autocad** application — it is necessary to identify the electronic signals which, as an entirety, cause the computer to perform that function. As at present advised, I should think that those signals, as an entirety, answer the description of a "set of instructions" and an expression of those electronic signals answers the description of a "computer program". The Widget C program is designed to cause the computer to perform the function of running the **Autocad** application when the sequence of electronic signals, as expressed in the look-up table, is transmitted from the peripheral device. The function of running the **Autocad** application is performed in obedience to a "set of instructions". I have not appreciated the force of the submission that the sequence of electronic signals that are expressed in the look-up table is not part of the set of instructions which cause the computer to run the **Autocad** application.

A further submission is that the look-up table is not a substantial part of the relevant computer program. The bytes contained in the look-up table are but a minute fraction of the bytes in the

whole of the Widget C program. Nevertheless, the series of digits in the look-up table is both original and critical to the set of instructions designed to cause the computer to run the Autocad application. When the running of the Autocad application is the purpose of the set of instructions expressed in that program, it would be difficult, if not impossible, to contend that the look-up table is not a substantial part of that program. Even if the jurisdiction to reopen were wider than I hold it to be, I would dismiss the application.

However, it is not the absence of a likelihood of success by the respondents that leads me to refuse their application. The material consideration is that the conditions which govern the reopening of a judgment on appeal, as stated in *State Rail Authority of N.S.W. v Codelfa Construction Pty Ltd* and *Wentworth v Woollahra Municipal Council*, are not satisfied.

I would dismiss the application.

DEANE J:

I agree with the Chief Justice that the appeal in this case should have been listed for further argument before the Court proceeded to deliver judgment. However, my reasons for that conclusion differ from those of the Chief Justice. It seems to me that, when the relevant facts (which are set out in other judgments) are assessed with the benefit of hindsight, the correct conclusion is that the unsuccessful respondents, who are the present applicants, were not given an adequate opportunity to present submissions in relation to a finding which was of critical importance to the Court's ultimate decision. That finding was that the 127-bit sequence in the look-up table of Autodesk's computer program known as "Widget C" was, of itself, a "substantial part" of that "computer program" for the purposes of the *Copyright Act 1968 Cth* ("the Act"). On the basis of that finding, the Court held that the encrypting or storing of a corresponding 127-bit sequence in the **eprom** of the respondents' Auto Key lock of itself constituted an infringement of Autodesk's copyright in Widget C.²⁶

²⁶ *Autodesk Inc. v Dyason* (1992), 173 C.L.R. 330, at pp. 336, 346.

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".²⁷ To the contrary, the judgments of Sheppard J and Beaumont J. in the Full Court of the Federal Court expressly stated that it was "common ground" that the respondents had "not reproduced" "any part"²⁸ or a "substantial part"²⁹ of the computer program known as Widget C. Neither in the notice of appeal to this Court nor in the course of oral argument did the appellants ("Autodesk") challenge the correctness of those statements or suggest that the Federal Court had, by reason of a misapprehension about what was common ground, wrongly failed to deal with a proposition that the reproduction, in a material form, of a sequence corresponding to that in the look-up table of itself constituted infringement of Autodesk's copyright in Widget C. Nor did Autodesk advance oral argument in this Court in support of any such proposition. The closest Autodesk came even to adverting to such a proposition in this Court was in some not unambiguous answers to questions asked by a member of the Court. In these circumstances, the respondents were, in my view, entitled to approach the oral argument of the appeal on the basis that Autodesk did not attack the decision of the Full Federal Court on the ground that that Court had wrongly failed to consider or to uphold a submission that the encrypting of the **eprom** in the Auto Key lock of itself constituted an actionable infringement of Autodesk's copyright in Widget C. It is apparent that that was, in the event, the approach adopted by counsel for the respondents since the respondents did not direct oral argument to the question whether the sequence in the look-up table constituted a "substantial part" of the "computer program". Nor was that question raised by any member of the Court in the course of the respondents' oral argument.

It is true that the Registrar's letter to the parties, which was written at the direction of the Court, raised the question whether reproduction in a material form of Widget C's look-up table of itself constituted a reproduction of a "substantial part" of a "computer program". Unfortunately, that letter invited further submissions only in the event that the parties were agreed that Autodesk had in fact argued in the Federal Court that the series embedded in the **eprom** in the Auto Key lock itself constituted a reproduction in a material form of a "substantial part" of

²⁷ See *Autodesk Inc. v Dyason* (1989), 15 I.P.R. 1; *Dyason v Autodesk Inc.* (1990), 24 F.C.R. 147.

²⁸ (1990) 24 F.C.R., at p. 168, per Sheppard J.

²⁹ *ibid.*, at p. 195, per Beaumont J.

Widget C. In the event, the parties were not agreed that any such argument had been advanced. In those circumstances, the respondents were, in my view, entitled to adopt the approach that it sufficed, for the purposes of the Court's inquiry, to make plain that it was not agreed that any such argument had been advanced in the Federal Court and that, if this Court were to entertain such an argument, there would be genuine dispute about its correctness. That, it would seem, is the approach which the respondents adopted. The unfortunate result is that there has, in my view, been an inadvertent denial of procedural fairness by the Court for the reason that, regardless of what was or was not common ground in the Federal Court, the respondents have never been given 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.

The argument on the present application to vacate the Court's judgment in *Autodesk Inc. v Dyason*³⁰ was necessarily of a preliminary nature. It has not sufficed to persuade me that the conclusion expressed in the joint judgment to which I was a party was mistaken. It has, however, persuaded me that I may have reached that conclusion without a complete consideration of the argument against it. In the result, I consider that the judgment should be vacated so that the case can be approached anew in the light of the argument which the respondents wish to present.

I agree with the orders proposed by the Chief Justice.

DAWSON J:

In *Autodesk Inc. v Dyason*,³¹ this Court held that the respondents (the applicants in these proceedings whom I shall continue to call the respondents) had infringed the appellants' copyright in a computer program known as "Autocad ". The Autocad program enables a user to produce drawings which assist in the drafting of architectural and engineering plans and designs. The circumstances in which the infringement occurred were described as follows:³²

Autocad is sold by dealers. The purchasers receive a package including a number of disks which contain software in the form of the drafting program. It is easy to make

³⁰ (1992) 173 C.L.R. 330.

³¹ (1992) 173 C.L.R. 330.

³² *ibid.*, at p. 337.

copies of these disks and it would appear that many users do so, if only for replacement purposes should the original disks be damaged. Because the disks are easily copied, there is a danger that persons who have not purchased the disks from an Autocad dealer may pirate them by making unauthorized copies. To avoid piracy of this kind, the appellants developed a hardware device, called an "Autocad lock", without which the Autocad program cannot be run. The lock is plugged into the computer, and peripheral devices, such as printers or monitors, are in turn plugged into the lock. Without the lock in place the computer will not run the Autocad program, although other programs may be run with the lock in place. A single lock is supplied with each purchase of the Autocad package and cannot be purchased separately. The cost of an Autocad package is approximately \$5,200 which includes the price of the Autocad lock. Thus, even though a purchaser of Autocad might make copies of the disks containing the program, with only one lock he can run only one set of disks at a time. That is the purpose of the Autocad lock: to ensure that the purchase of a single Autocad package does not result in multiple use of the program.

The third respondent, after making a close examination of the operation of the Autocad lock, designed an alternative device, called an Auto Key lock, which performs the same function as the Autocad lock. [T]he Auto Key lock was placed upon the market at a price of about \$500.

The Autocad program is in fact a compilation of programs, one of which is known as Widget C. It is Widget C which operates in conjunction with the Autocad lock. The set of instructions contained in Widget C requires the computer to send out challenges to the Autocad lock which, in turn, sends its responses back to Widget C. If a response is adjudged correct by Widget C, the computer is instructed to proceed. If it is not, the running of the Autocad program ceases. This happens every few seconds during the use of the Autocad program.

The third respondent, using an oscilloscope, was able to read the responses of the Autocad lock and, by the use of an **eprom** (a type of semiconductor chip), was able to produce a device which would produce the same output as the Autocad lock. That device became the Auto Key lock.

The majority in *Autodesk* (Mason C.J., Brennan and Deane JJ.) expressed the conclusion of the Court as follows:³³

[I]t is common ground that Widget C (a program file in the Autocad software) was, for relevant purposes, a "computer program" in that it was a set of instructions of the kind designated by the definition [in s. 10(1) of the *Copyright Act 1968 Cth* as amended by the *Copyright Amendment Act 1984 Cth*]. There is no dispute about its originality. When the definition of computer program in s. 10(1) of the Act is understood, the effect of the Act is that, at relevant times, copyright existed in any expression of Widget C in language, code or notation. The evidence disclosed that

³³ (1992) 173 C.L.R., at p. 336.

there was "encrypted" or stored in Widget C a "look-up table" which can be expressed in binary notation as an irregular arrangement or series of 127 ones or zeros. Once the respective starting points are identified, that expression of that look-up table corresponds precisely with the expression in binary notation of the 127-bit series embedded or stored in the **eprom** in the Auto Key lock. The look-up table in Widget C constituted "a substantial part" of Widget C. As Dawson J. points out, [the third respondent's] use of an oscilloscope to read the output of a stimulated **Autocad** lock involved an indirect copying of the look-up table. Indeed, the whole point of the exercise was to reproduce whatever was necessary to match the requirements of that look-up table. In these circumstances, the 127-bit series embedded in the **eprom** in the Auto Key lock constituted a reproduction in a material form of a substantial part of any actual or theoretical "expression" in binary "notation" of the "set of instructions" constituting Widget C. It follows that the 127-bit series embedded in the **eprom** in the Auto Key lock infringed the appellants' copyright in the computer program, Widget C.

By notice of motion the respondents seek to have the Court vacate the judgment given and the orders made in *Autodesk* upon the ground that, without fault on their part, they were afforded no opportunity of being heard on the following questions:

- (a) Whether the 127-bit series embedded in the **eprom** in the Auto Key lock constituted a reproduction of a substantial part of Widget C, namely, the look-up table stored in Widget C.
- (b) Whether the third respondent indirectly copied the look-up table in Widget C by copying the sequence of numbers generated by the **Autocad** lock.
- (c) Whether copying data contained in a computer program can constitute a reproduction of a substantial part of that computer program.

Before judgment was delivered in *Autodesk*, an inquiry was made of the parties, through the Registrar of the Court, as follows:

whether it has at any stage been expressly submitted on behalf of the appellants that the series embedded in the **eprom** in the Auto Key lock constituted a reproduction in a material form of a substantial part of **Widget.C**.

In that regard, attention is directed to the statement in the judgment of Sheppard J. in [the Full Court of] the Federal Court that it is "common ground that [the respondents] have not reproduced any part of the **Widget.C** program".

If the parties are agreed that a submission to that effect was advanced, the parties are invited to make any supplementary submissions in writing which they might desire to make in relation to it. If the parties are agreed that no such submission was advanced, it is unnecessary for the matter to be taken further.

In response to that inquiry, the respondents to this application (the appellants in *Autodesk* whom I shall continue to call the appellants) submitted that the observation of

Sheppard J. was "on its face clearly incorrect". They referred the Court to relevant passages in the transcript of proceedings in the Full Court of the Federal Court and in the transcript of proceedings in this Court where, they said, the matter referred to in the Registrar's inquiry had been raised. The respondents, who had been supplied with a copy of the appellants' submission, also made a supplementary submission, the relevant part of which was as follows:

3. The look up table in Widget.C is data rather than instructions

5. The portion of code shown at Appeal Book 818 is a very small portion of Widget.C. The entire Widget.C program is 20,000-30,000 bytes in size (Appeal Book page 163). The string produced by Autokey is 127 bits in size; by ordinary conventions, that is 16 bytes. Autokey was developed without the use of Widget.C (Appeal Book pages 498-500. See also High Court submissions on pages 104-106).

1. Accordingly, no part of Widget.C (alternatively, no substantial part) has been reproduced in Autokey.

The appellants delivered submissions in reply.

Whilst the Court has jurisdiction to entertain an application to vacate orders which it has made, at all events before those orders have been perfected by the entry of judgment³⁴ (that not having occurred in this case), it is a jurisdiction to be exercised cautiously, bearing in mind the public interest in the finality of litigation.³⁵ In *Wentworth v Woollahra Municipal Council*,³⁶ the Court said:

[T]he circumstances in which this Court will reopen a judgment which it has pronounced are extremely rare. The public interest in maintaining the finality of litigation necessarily means that the power to reopen to enable a rehearing must be exercised with great caution. Generally speaking, it will not be exercised unless the applicant can show that by accident without fault on his part he has not been heard.

And it should be added that even though a party fails to present his case in a manner which is open on the pleadings and on the facts, a final appellate court with responsibility to determine the law cannot be precluded from disposing of a case upon the basis which appears to it to be correct. This is particularly so where matters not raised on appeal have been raised in the courts

³⁴ cf. *University of Wollongong v Metwally [No. 2]* (1985), 59 A.L.J.R. 481, at p. 482; 60 A.L.R. 68, at p. 70.

³⁵ See *State Rail Authority of N.S.W. v Codelfa Construction Pty Ltd* (1982), 150 C.L.R. 29, at pp. 38, 45-46.

³⁶ (1982) 149 C.L.R. 672, at p. 684.

below. "Judges are more than mere selectors between rival views — they are entitled to and do think for themselves."³⁷

The respondents encounter immediate difficulty in the light of these observations. Whilst the form of the invitation to address submissions to the Court upon the proposition that "the series embedded in the **eprom** in the Auto Key lock constituted a reproduction in a material form of a substantial part of **Widget.C**" may have been equivocal, the respondents availed themselves of that invitation and did make supplementary submissions before the delivery of judgment in *Autodesk*. There can have been no doubt about the matter to which submissions, if they were to be delivered, were to be addressed. They were to be directed to the proposition that "the series embedded in the **eprom** in the Auto Key lock constituted a reproduction in a material form of a substantial part of **Widget.C**". And that was the matter to which the respondents did address themselves, albeit briefly, in their supplementary submissions. No limit was placed upon the nature or extent of the submissions which might be made.

Nor, having regard to the conduct of proceedings at first instance before Northrop J. and subsequently on appeal before the Full Court of the Federal Court, can the respondents have been unaware of the issue raised by the Registrar's inquiry. That issue was always open on the pleadings and it has not been contended otherwise, although the relief claimed by the appellants was more confined. They sought an order that the respondents be restrained from reproducing in any material form, the whole or a substantial part of, or any part of, the computer program contained within the **Autocad** lock or any adaptation thereof. However, the form of relief was incapable of restricting the scope of the pleadings, the appropriate relief upon the facts proved being ultimately a matter for the Court.³⁸

The form of relief claimed does reflect the primary way in which the appellants put their argument at first instance, which was that the **Autocad** lock itself contained a computer program which was reproduced in a material form in the Auto Key lock. But it is clear that, at first instance and on appeal to the Full Court of the Federal Court, counsel for the appellants

³⁷ *Saif Ali v Sydney Mitchell & Co.*, [1980] A.C. 198, at p. 212, per Lord Wilberforce.

³⁸ See *Wicks v Bennett* (1921), 30 C.L.R. 80, at p. 100.

also addressed argument upon the alternative possibility that the look-up table contained in Widget C was reproduced in the Auto Key lock by indirect copying through the use of the Autocad lock. The submission was made that, although the physical arrangement of the look-up tables in Widget C and in the **eprom** in the Auto Key lock was different in that the look-up table in Widget C was stored in a compressed and encrypted form, the difference was immaterial. Counsel for the appellants did not submit, indeed submitted to the contrary, that the 127-bit sequence was itself a computer program. He did, however, submit that the sequence was a very important part of the relevant computer program and that it was the part of the program which made the program of value. He also contended that the computer program said to be contained in the Auto Key lock (of which the 127-bit sequence was said to be a part) was derived from Widget C, despite the third respondent not having had access to the source code for Widget C.

Nor, at first instance, were counsel for the respondents unaware of the significance of these submissions. Counsel for the first two respondents conceded that there was a degree of "logical similarity" between Widget C and the Auto Key lock, but contended that the 127-bit sequence was not a computer program or part of a computer program, being merely data taking the form of output from the locks and input into the computer. He submitted that even if the 127-bit sequence as found in the look-up table in Widget C and in the **eprom** in the Auto Key lock could be regarded as a computer program, the difference between the two look-up tables referred to by counsel for the appellants did mean, contrary to the appellants' submissions, that the look-up table in the Auto Key lock was not a reproduction of the look-up table in Widget C. Counsel for the first two respondents also denied that the look-up table in Widget C was a substantial part of the computer program constituted by Widget C because it was quantitatively only a very small part of Widget C and was qualitatively insignificant. Finally, counsel for the first and second respondents contended that the third respondent had not used Widget C (including the look-up table contained in its memory) to produce the Auto Key lock because he had merely observed the input and output of the Autocad lock.

Before the Full Court of the Federal Court, counsel for the appellants placed express reliance upon a submission that the respondents had copied the precise state machine — or look-up table or 127-bit sequence — used in Widget C and had incorporated it into the Auto Key lock. He submitted that the look-up table was an important part of the computer program which was the subject of copyright protection. He further argued that it was irrelevant whether Widget C

or the Autocad lock was developed first because the two were interlocking parts such that it could be said that the Autocad lock was part of Widget C rather than that it reproduced Widget C. And, partly for this reason, he submitted that it was irrelevant that the third respondent had had no access to the source code for Widget C, it being sufficient that he had produced the Auto Key lock through observing the input and output of the Autocad lock.

In the Full Court, counsel for the respondents rejected any suggestion that the Auto Key lock infringed copyright in Widget C. He reiterated arguments similar to those which he had put to Northrop J. He accepted that the sequence of numbers was stored in the **eprom** and acknowledged a similarity in logic between the Auto Key lock and Widget C in their use of a look-up table, but he denied that the similarity was significant and asserted that the method employed by each of the Auto Key lock and Widget C was different. He also contended that the third respondent had not used Widget C (including its look-up table) to produce the Auto Key lock because the third respondent had not looked into Widget C but had merely observed the input and output of the Autocad. He again submitted that the 127-bit sequence could not be characterized as a computer program because it was not a set of instructions. In addition, he pointed to the fact that no copyright was claimed in the 127-bit sequence saying that there was "no claim for infringement of that group of bits". That was indeed true but did not address the argument put on behalf of the appellants that what was infringed was copyright in a computer program (of which the sequence of bits formed a part) rather than any copyright that might subsist in the sequence of bits itself.

The last point was raised during the application for special leave to appeal. In reply to a suggestion from the bench that the 127-bit sequence constituted a set of instructions and that it might therefore be protected by copyright, counsel for the respondents said:

It is not pleaded. It has not been argued and, we would say, this is certainly not the time at which it can be raised because to suggest that would raise a whole range of quite different issues including, for example, whether a sequence of 127 binary digits is capable of being a subject-matter of copyright at all.

He continued his reply:

If there is any suggestion that special leave might be granted to argue a case for copyright of the 127 bits, we would say that that is a procedural unfairness of very substantial proportions.

But, of course, that was not the argument that had been put on behalf of the appellants. It was never contended that the 127-bit sequence itself constituted an instruction or set of instructions

or, indeed, that it in itself constituted a work (such as a table or compilation) that was the subject of copyright protection. The argument was that the 127-bit sequence comprised a substantial part of the instructions that constituted Widget C.

In this Court, counsel for the appellants contended that, in order to establish infringement of copyright, it was sufficient to show that the respondents reproduced the whole or a substantial part of any one of (a) a computer program in **Autocad**, (b) a computer program in the **Autocad** lock, or (c) a computer program in both **Autocad** and the **Autocad** lock or partly in one and partly in the other. In developing this argument, the contention was advanced that both Widget C and the **eprom** in the Auto Key lock contained the same look-up table, as did the **Autocad** lock save that in that lock some digits were hardwired into the lock, the remainder being generated by the lock. Protection was claimed for the 127-bit sequence as part of the relevant computer program. Counsel for the respondents argued that the only similarity (if any) between the Auto Key lock and any of the computer programs claimed by the appellants to be protected by copyright was their function. Indeed, he contended that, in any event, the function of Widget C differed from that of the two locks in that its function was not to generate the 127-bit string, but simply to compare the bits put out by the relevant lock with the bits anticipated by Widget C. And, as in the courts below, there was argument as to whether Widget C had been used by the third respondent to produce the Auto Key lock despite the third respondent not having had access directly to Widget C.

As was observed in *Autodesk*,³⁹ the basis upon which the appeal was determined was not in the forefront of the appellants' submissions to this Court. Nevertheless, the arguments which were put embraced the ground which had clearly emerged in the courts below and which found favour with this Court. In any event, that ground was plainly identified in the inquiry made by the Registrar of the parties and they were invited to, and the respondents did, make submissions addressed to it. They made those submissions in the light of the arguments which had been put both at first instance and on appeal to the Full Court of the Federal Court. The respondents were, therefore, given ample opportunity to be heard, and were heard, upon the matter which they now seek to raise again.

³⁹ (1992) 173 C.L.R., at p. 348.

That is sufficient to dispose of the respondents' motion, but I think it appropriate to add that I have given consideration to the arguments which the respondents would seek to put if the case were reopened, these arguments having been developed to a considerable extent during the hearing of this application. If it were necessary so to decide, I would be of the view that none of them would enjoy a sufficient prospect of success to warrant taking the exceptional step of reopening a judgment pronounced by this Court. I would refuse the motion.

GAUDRON J:

This is an application by the unsuccessful respondents in *Autodesk Inc. v Dyason*⁴⁰ ("Autodesk No. 1") ("the respondents") to vacate the judgment given in that matter on the ground that, without fault on their part, they had no opportunity to be heard on three issues involved in or decided by it. Judgment has not yet been entered and, in my view, should be set aside if the interests of justice so require.⁴¹ However, the circumstances in which justice requires that course are, in practice, extremely rare, particularly if there has been an opportunity for full argument.⁴² In order to make clear my reasons for holding that the interests of justice do not require that course in this case, it is necessary for me to repeat, at least to some extent, the facts involved in Autodesk No. 1.

Autodesk Inc. ("Autodesk") developed a computer software package, known as "Autocad", which consists of a number of computer programs, including one called "Widget C". It is and has been common ground at all stages that Widget C is a computer program as defined in s. 10 of the *Copyright Act 1968 Cth* ("the Act"). That definition is as follows:

"computer program" means an expression, in any language, code or notation, of a set of instructions (whether with or without related information) intended, either directly or after either or both of the following:

- (a) conversion to another language, code or notation;
- (b) reproduction in a different material form; to cause a device having digital information processing capabilities to perform a particular function.

⁴⁰ (1992) 173 C.L.R. 330.

⁴¹ *Smith v N.S.W. Bar Association* (1992), 176 C.L.R. 256.

⁴² *Wentworth v Woollahra Municipal Council* (1982), 149 C.L.R. 672, at p. 684; *State Rail Authority of N.S.W. v Codelfa Construction Pty Ltd* (1982), 150 C.L.R. 29, at pp. 38, 48.

It has not at any stage been suggested that the expression "a set of instructions" in that definition is a technical or art term or that it has anything other than the ordinary and natural meaning conveyed by those words in that context.

Widget C prevents the use of the other **Autocad** programs unless a piece of hardware, called an **Autocad** lock, is connected to the computer on which they are to be run. It does this by instructing the computer to send signals to the lock: if the lock responds with the appropriate answering signal, it instructs the computer to proceed; if it does not, the programs cease to operate. Signals are sent and responses made every few seconds. The responses comprise a repeating sequence of 127 electrical impulses representing 127 binary digits. The repeating sequence is emitted as the result of the wiring, in a particular way, of two common electronic components, a shift register and an exclusive — or gate. That repeating sequence corresponds exactly with a sequence of digits in a look-up table encrypted and stored in memory in Widget C. For the **Autocad** programs to run, each digit emitted by the **Autocad** lock must correspond with the digit in that look-up table as then read by Widget C.

The **Autocad** programs are easily copied onto computer disks. The purpose of the **Autocad** lock is to prevent use of the programs or of copies of those programs, save by persons who have acquired a lock by purchasing a software package or, in the case of purchasers, to prevent multiple use of a single package. One of the respondents, Mr. Peter Vincent Kelly ("the third respondent"), set about producing a device which would perform the same function as the **Autocad** lock and, hence, would enable the use of copied programs by persons other than purchasers and, in the case of purchasers, multiple use of a single package.

By studying the **Autocad** lock, the third respondent was able to detect the sequence of signals emitted by it and the point at which that sequence began to repeat itself. He was then able to construct a device, using an **eprom** (Erasable Programmable Read Only Memory) in which that sequence was stored, which could be connected to a computer and which would reproduce the repeating sequence emitted by the **Autocad** lock. He set about commercial exploitation of the device which he called "an Auto-key lock".

On learning of the Auto Key lock, Autodesk and another company (both together called "Autodesk" in what follows) made application to the Federal Court to restrain what was

claimed to be a breach of copyright in "the computer program contained within the autocad lock". That claim was broadened in the statement of claim in which Autodesk claimed infringement of its copyright in "a computer program known as "Autocad " which is, also, in part, contained within a product known as "the Autocad hardware lock" ". It claimed that that copyright had been infringed by the respondents by, amongst other things, "reproducing in a material form and/or adapting [that] computer program or a substantial part of it".

Judgment was given by this Court in Autodesk No. 1, an appeal from the Full Court of the Federal Court, on the basis that "[t]he look-up table in Widget C constituted a substantial part of [the] Widget C [program]" and that the Auto Key lock had been made by "indirect copying of [that] look-up table" and "constituted a reproduction in material form of a substantial part of the "set of instructions" constituting Widget C".⁴³ The three issues on which the respondents claim they were not afforded an opportunity to present argument are: first, whether the look-up table is a substantial part of Widget C; secondly, whether it was indirectly copied by the third respondent; and thirdly, whether "copying data in a computer program can constitute a reproduction of a substantial part of that computer program". These issues were not dealt with in oral argument in this Court, but the history of the proceedings shows that they emerged and were the subject of submissions at first instance and, save as to the first issue, on appeal to the Full Court of the Federal Court.

In keeping with the assertion in the statement of claim that there was an infringement of copyright in "the computer program known as "Autocad " ", the evidence and argument at first instance travelled well beyond the Autocad lock. One issue that clearly emerged at that stage was whether copyright had been infringed by reproduction of the look-up table in Widget C. Counsel for the third respondent argued that the look-up table was not reproduced in the Auto Key lock because it "is a table which, if written in binary form, is altogether different in appearance from that constituted by the 128 states represented in binary form in the Autokey [eprom]". And while acknowledging that there was "a logical similarity at one level" between the two in that "each of them has reference to something that could be described as a look-up table in order to ascertain the next digit in the series", counsel for the first two respondents also

⁴³ (1992) 173 C.L.R., at p. 336, per Mason C.J., Brennan and Deane JJ. See also pp. 346-347, per Dawson J.

argued there was "certainly not a similarity of appearance". The question of similarity of appearance, which arose primarily because the sequence was written left to right in one case and right to left in the other, has long since ceased to be an issue.

Counsel for the first two respondents also argued that the look-up table in Widget C was "such a minuscule portion" of the program that the look-up table in the **eprom** of the Auto Key lock "[could not] be said to be a substantial reproduction of it". Additionally, he argued that the Auto Key lock was not derived from Widget C because it "was not produced by use of Widget C". And counsel for the third respondent argued that it had not been proven to have been derived from Widget C because it had not been established whether the lock or the program came first. Counsel for the first two respondents also argued that there was no evidence that the 127 digits in the look-up table in Widget C "constitute instructions" and, if "they are not instructions they cannot be a computer program within the meaning of the [A]ct". Between them, counsel for the respondents thus raised and argued at first instance the very issues which it is said they had no opportunity to argue in this Court, albeit that the last matter was not then put precisely as it is now.

As it happened, the trial judge, Northrop J., decided in favour of Autodesk on a basis which made it unnecessary for him to consider whether the Auto Key lock involved the reproduction of the look-up table in Widget C and, if so, the reproduction of a substantial part of that program.⁴⁴ The respondents appealed to the Full Court and Autodesk cross-appealed. Naturally, the appeal focused on that aspect of the case on which Northrop J. found for Autodesk, namely, that the Auto Key lock involved the reproduction of a computer program found in the **Autocad** lock. Even so, counsel for the respondents (who was counsel for the first two respondents at first instance, and counsel for all respondents at all stages in this Court) was alive to the significance of the look-up table in Widget C, acknowledging in his argument in chief that Widget C and the Auto Key lock "at least had this in common, that [Widget C] made reference to an internal look up table in deciding which bit should be sent back from the lock in response to the challenge." He went on to accept that "Widget C is a computer program", but indicated that "if it is suggested against us that [the Auto Key] lock infringes the copyright

⁴⁴ *Autodesk Inc. v Dyason* (1989), 15 I.P.R. 1.

in that part of Widget C, we would simply say first that it does not bear any relevant similarity to Widget C and in any event [the third respondent] never had any relevant access to Widget C".

In due course, counsel for Autodesk put the case foreshadowed by counsel for the respondents. He indicated at the very outset of his argument that the question "whether the same hardware [had] been used" was irrelevant and that the issue was whether "the program [had] been reproduced", although he did not then identify the program with particularity. Later, however, he put his case this way:

What we say is Widget C is a program and a substantial part of that program is reproduced in the lock and is necessarily so.

A little later, this was elaborated as follows:

the correct way to put [our case], we would say, is that Widget C is a program and each of the locks is a reproduction of part of that program, so the comparison is Widget C and each of the locks.

And later, in answer to questions from members of the bench, he put that "there is an identical look-up table in Widget C and in the [Auto Key] lock" and that that look-up table was "part of the instruction" in Widget C in respect of which Autodesk claimed there had been an infringement of its copyright.

Counsel for the respondents acknowledged in reply that the sequence of digits stored in the Auto Key **eprom** was the same as that in the look-up table in Widget C, saying that the Auto Key lock "would not do anything if it was not the case". However, he asserted that this involved no infringement of copyright because the look-up table could not be regarded as an instruction as "it [did] not tell anything to do anything". And, in keeping with what he had earlier indicated would be his argument, he submitted that the sequence in the Auto Key lock had not been derived from Widget C. He did not deal with the issue whether the look-up table was a substantial part of Widget C, although that had been the subject of submissions by him at first instance.

In the end result, the Full Court determined the appeal against Autodesk without considering whether the Auto Key lock reproduced the look-up table in Widget C and, if it did, whether it

thereby reproduced a substantial part of that program.⁴⁵ In fact, erroneously and quite contrary to what counsel for Autodesk had said was the correct way of viewing his case, namely, that "each of the locks is a reproduction of part of [the Widget C] program", two members of the Full Court gave their reasons for judgment on the basis that it was common ground that the respondents had not reproduced the whole or a substantial part of Widget C.⁴⁶

Autodesk's grounds of appeal to this Court were widely framed so as to raise arguments that the Auto Key lock was a reproduction of the program in the Autocad lock, or of the Autocad program or of the Widget C program. They did not expressly raise the issue whether the Auto Key lock involved the reproduction of a substantial part of the Autocad program or of the Widget C program but, in the light of the evidence, that was the only issue that they could raise in relation to those programs. And one ground of appeal, ground (d), asserted that the Full Court erred "in holding that the storage in random access memory of the Autocad program was not a reproduction or adaptation of the program embodied in the Autocad lock or of the Autocad program or of **Widget.C**". As the only matter stored in the Auto Key **eprom** was the repeating sequence of 127 digits generated by the Autocad lock and stored in the look-up table in Widget C, that ground of appeal, considered in context, clearly raised the question whether that storage involved the reproduction of a substantial part of Widget C.

The oral argument made on behalf of Autodesk in this Court was as broadly based as its grounds of appeal, it being asserted that Autodesk was entitled to succeed "whether one finds the copyright subject matter in Autocad in the computer, or the Autocad lock, provided that the tests for infringement are satisfied". But the thrust of the argument was that the Auto Key lock embodied a set of instructions amounting to a computer program as defined in the Act and that those instructions reproduced part of the instructions in Widget C. It was not expressly argued that, quite apart from whether the Auto Key lock involved a set of instructions amounting to a computer program, it nonetheless infringed Autodesk's copyright in that it reproduced a part of the instructions comprising Widget C, which part, standing alone, might

⁴⁵ *Dyason v Autodesk Inc.* (1990), 24 F.C.R. 147.

⁴⁶ *ibid.*, at p. 168, per Sheppard J.; p. 195, per Beaumont J.

not constitute an instruction or a set of instructions. And, as already indicated, counsel for the respondents did not, in his oral argument, deal with the issues involved in that proposition.

Before judgment was delivered, the Registrar inquired of the parties, by letter, whether it had "at any stage been expressly submitted on behalf of [Autodesk] that the series embedded in the **eprom** in the Auto Key lock constituted a reproduction in a material form of a substantial part of **Widget.C**". The letter went on to invite supplementary written submissions "[i]f the parties [were] agreed that a submission to that effect was advanced" and indicated that, if they were "agreed that no such submission was advanced", the matter need not be taken any further. There may have been some lack of precision so far as the right or necessity to make further submissions was concerned, but there was no lack of precision as to the subject matter of inquiry. And the parties thereupon made supplementary submissions: Autodesk asserted that it had, in fact, put a submission to that effect at first instance and on appeal to the Full Court and said that it repeated the submission; the respondents denied that the argument had been put in that way, but went on to submit that the look-up table was "data rather than instructions", that it was "a very small portion of Widget C", that "Autokey was developed without use of Widget C" and that, in consequence, "no part of Widget C (alternatively, no substantial part) [was] reproduced in Autokey".

The history of the proceedings shows that, from the time it issued its statement of claim, Autodesk's case was put on a basis which comprehended a claim that the look-up table in Widget C was reproduced in the **eprom** used in the Auto Key lock and that that involved the reproduction of a substantial part of Widget C. It shows, too, that that claim emerged at first instance, was made in terms during argument in the appeal to the Full Court of the Federal Court and that the respondents were alive to the issues raised by it, in particular, the three issues on which they now wish to put further argument. In view of that history and in view of the written submissions made following the Registrar's letter to the parties, it cannot be said that the respondents were not afforded an opportunity to be heard on those issues.

As earlier indicated, it is my view that, quite apart from the question whether the respondents were given an opportunity to be heard on the issues involved in the judgment in Autodesk No. 1, they are entitled to have the judgment vacated if the interests of justice so require. Having regard to the significance which currently attaches to computer technology and having regard to this Court's status as Australia's final court of appeal, it seems to me that the interests of

justice would require that course if it were fairly arguable that the judgment involved a misunderstanding of the facts or misapplication of the law in relation to one or more of the issues on which the respondents now wish to put further argument.

There is no question of law involved in the issue whether there was indirect copying of the look-up table in Widget C. There is no doubt that the third respondent studied the Autocad lock and thereby discovered the repeating sequence which it emitted and without which the Autocad programs could not be run. Given the purpose and function of the Autocad lock in relation to the Autocad programs, it must have been obvious to the third respondent that the lock emitted a sequence which corresponded with something in the Autocad programs. As was accepted by the respondents in the Full Court in relation to the Auto Key lock and its reproduction of the look-up table in Widget C, unless the lock reproduced something within the program, "it would not do anything". And the evidence clearly shows that what it reproduced was the look-up table in Widget C. These matters all but compel a finding as to indirect copying of that look-up table.

The respondents hope to avoid a finding of indirect copying by arguing that the Autocad lock must have been devised first and the sequence of its signals later encrypted in the look-up table with the consequence that it should be found that the third respondent did no more than what he readily acknowledges, namely, copy the repeating sequence emitted by the Autocad lock. But, clearly enough, the Autocad lock and Widget C were devised in conjunction with each other and with the intention that they should complement each other by the lock's emission of a sequence of digits stored in Widget C. Perhaps the lock was wired first so as to generate the sequence eventually employed. But if so, that does not alter the fact that, just as with a conventional lock and key, the devising of one is necessarily the devising of the other. That being so, it cannot be said that there was any misapprehension of the facts involved in the finding of indirect copying.

As has been seen, the respondents have at all stages relied on the fact that the look-up table in Widget C is not itself an instruction or, as it was sometimes put, is data rather than instructions. It may be that, so far as the computing profession is concerned, there is a dichotomy between data and instructions. And, so far as the definition of "computer program" in the Act proceeds by reference to "a set of instructions (whether with or without related information)", it may be that it also recognizes that it is possible to draw a distinction between instructions and data. But

that does not mean that, for the purposes of that definition, a computer program does not include data or information.

An instruction operates as such only to the extent that it conveys a command to its recipient. What is required to achieve that result in a given case will vary according to circumstances and according to the knowledge of that recipient. In general terms, the less knowledgeable the recipient, the greater will be the need for the instruction to be accompanied by information. To take an everyday example, it may be sufficient in one case to say "Go to the shop and buy butter"; in another it may be necessary to say "Go to the shop at the end of the street, the one painted green with groceries in its window, and buy butter". As a matter of ordinary usage, each, viewed in its entirety, is an instruction. And it is an instruction whether or not accompanied by information about the shop.

Given ordinary usage and given that it has never been suggested that the expression "set of instructions" in the definition of computer program in s. 10 of the Act is a technical or art term, it is, in my view, clear that that expression directs attention to an entire instruction or, more accurately, an entire set of instructions, and not merely those parts that consist of bare commands. So much is confirmed by the language used in the definition and by its context. The words "set of instructions" necessarily direct attention to instructions in their entirety. And that direction is in no way cut down, but, rather, is reinforced by the parenthetical description of the instructions involved as instructions "whether with or without related information". Moreover, the definition is concerned with instructions which "cause a device having digital information processing capabilities to perform a particular function" and in many cases it will be necessary for instructions to be accompanied by related information if those devices are to perform quite ordinary computer functions.

Ordinary usage and the language and context of the definition of computer program in s. 10 of the Act compel the conclusion that the words "set of instructions (whether with or without related information)" extend to comprehend information as well as commands. There is thus no basis for an argument that the Act does not extend copyright protection to information forming part of a set of instructions of the kind falling within the definition of "computer program", at least if that information is a substantial part of the relevant set of instructions.

The only other matter on which the respondents rely is the question whether the look-up table can be said to be a substantial part of Widget C. In truth, the table was the linchpin of the program, to borrow an expression from a different technology. It was the critical part of the instructions in that the other parts depended on and were made by reference to it. Whatever may be the situation in cases in which information plays a less significant role, given that the look-up table was crucial to Widget C and given that copyright protection extends to information as well as the commands involved in a set of instructions of the kind constituting a computer program as defined in s. 10 of the Act, there is, in my view, simply no basis for an argument that the look-up table was not a substantial part of Widget C.

The application should be refused.