

Author: L Muswaka

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**UNAUTHORISED ADAPTATION OF COMPUTER PROGRAMMES - IS
CRIMINALISATION A SOLUTION? *HAUPT T/A SOFTCOPY V BREWERS
MARKETING INTELLIGENCE (PTY) LTD 2006 4 SA 458 (SCA)***

L Muswaka*

1 Introduction

In *Haupt t/a Softcopy v Brewers Marketing Intelligence (Pty) Ltd*¹ the appellant sought to enforce a copyright² claim in computer programmes³ against Brewers Marketing Intelligence (Pty) Ltd. His claim was dismissed in the High Court (*court a quo*), whereupon he appealed to the Supreme Court of Appeal. The primary objective of this case note is to analyse some of the legal principles relevant to issues of copyright ownership in computer programmes as highlighted in the judgment of this case. More importantly, the contribution addresses the shortcomings of the *Copyright Act*⁴ in so far as the issue of unauthorised adaptation of computer programmes is concerned. It will be argued that the protection afforded by the Act⁵ to copyright owners of computer programmes is very narrowly defined. It is not wide enough to prevent unauthorised adaptation of computer programmes. The issue that will be considered therefore is whether or not the unauthorised adaptation of computer programmes should attract a criminal sanction. In addressing this issue and with the aim of making recommendations, the legal position in the United Kingdom (UK) will be analysed. The UK has enacted legislation that

* Linda Muswaka. LLB, LLM (University of Fort Hare) Lecturer, Faculty of Law: School of Postgraduate Studies and Research, North-West University, Mafikeng Campus, South Africa. E-mail: linda.muswaka@nwu.ac.za.

1 *Haupt v Brewers Marketing Intelligence (Pty) Ltd* 2006 4 SA 458 (SCA).

2 Copyright is a form of intellectual property which gives the creator of original work exclusive rights over that work to do or authorise others to do certain acts in relation to that work for a certain period. The aim of copyright is to allow authors to have control of and profit from their works, thus encouraging them to create new works and to aid the flow of ideas and learning. In South Africa copyright is regulated by the *Copyright Act* 98 of 1978. S 41(4) of the Act stipulates that "no copyright or right in the nature of copyright shall subsist otherwise than by virtue of this Act or of some other enactment in that behalf."

3 Certain defined works, of which computer programmes are one class, are eligible for copyright under the Act (s 2). Until 1992, the Act listed "computer programmes" as literary works. Currently computer programmes are listed separately and enjoy copyright protection in South Africa as a *sui generis* copyright item (s 2(1)). See also *Northern Office Microcomputers v Rosenstein* 1981 4 SA 123 (C).

4 *Copyright Act* 98 of 1978.

5 Section 27(1) *Copyright Act* 98 of 1978.

particularly addresses computer crime.⁶ The justification for focusing on the UK lies in the fact that English law has been very influential in this specific branch of law.⁷

2 Factual background

The appellant, Anton Charl Haupt,⁸ had been employed as a marketing director by the first respondent, Brewers Marketing Intelligence (Pty) Ltd.⁹ Christopher John Brewer,¹⁰ the second respondent, who also happened to be the brother-in-law of Haupt, was the sole shareholder of Brewers Ltd. The company did business as an advertising agency and also disseminated information of use to the advertising industry. During 1998 the third respondent, Byron Coetzee,¹¹ was requested by Brewers Ltd to write a computer programme which could interrogate and manipulate All Media Products Survey (AMPS) data.¹² Coetzee developed a computer programme known as the Project AMPS programme for this purpose. The programme was approaching beta stage¹³ when Haupt parted ways with Brewer on 31 July 1998 and started trading as Softcopy. Thereafter, in terms of a prior arrangement with Haupt, Coetzee continued to develop the programme for Haupt exclusively.¹⁴ After 31 July 1998 Haupt exercised control over the development of

6 The *Computer Misuse Act* 1990. The focus of this contribution will, however, be on unauthorised modifications of computer programmes. Hence, the other crimes in terms of this Act will not be discussed.

7 The history of the copyright law of South Africa can be traced from the *Patents, Trade Marks, Designs and Copyright Act* 9 of 1916, which was the first piece of legislation that recognised an author's right to copyright. This Act effectively adopted the UK *Imperial Copyright Act* 1911 as South African law. The system that South Africa inherited from the UK was based on the world's very first piece of copyright legislation, the 1709 Statute of Anne. When South Africa became a Republic in 1961, Parliament enacted its own copyright law, separate from that of the UK, in the *Copyright Act* 63 of 1965. Nonetheless, this Act was largely based on the UK *Copyright Act* 1956. In 1978 it was replaced by the *Copyright Act* 68 of 1978, which (as amended) remains in force. The 1978 Act draws both from British law and from the text of the Berne Convention.

8 Hereafter Haupt.

9 Hereafter Brewers Ltd.

10 Hereafter Brewer.

11 Hereafter Coetzee.

12 *Haupt v Brewers Marketing Intelligence (Pty) Ltd* 2006 4 SA 458 (SCA) para 3. AMPS data are research results produced by a media research company on behalf of the South African Advertising Research Foundation. AMPS data are based on market surveys done on a six-monthly basis by way of questionnaires and are available in binary column electronic format stored in a UFL file and captured on a compact disc. They enable one *inter alia* to determine who the readers, listeners or viewers of particular newspapers, magazines, radio stations or television programmes are and who the users of various products are.

13 Pre-final stage.

14 *Haupt v Brewers Marketing Intelligence (Pty) Ltd* 2006 4 SA 458 (SCA) para 5.

this programme.¹⁵ He changed the name of the programme to Data Explorer. Coetzee *inter alia* developed and incorporated a "tree-preparer" computer programme. In the beginning of 1999 Coetzee developed various database structures. In June 2000 Coetzee developed and added another computer programme referred to as the "converter program." Coetzee worked full-time for a period of two months for Haupt and was paid a salary of R20 000-00 per month. Coetzee left South Africa in 2000 and moved to the United States of America (USA). Brewer contacted Coetzee, who was still in the USA, on 26 March 2001 via e-mail and proposed that Coetzee allow him to use compiled data and parts of the source code he (Coetzee) had developed for the Data Explorer programme, to enable Brewers Ltd to write a new computer programme, in return for a royalty payment. Coetzee and Brewers Ltd then entered into a written agreement in July 2001. Brewer appointed a local developer, Hank Bento, who developed its new programme, which became known as the Brewer's AMPS program. Bento conceded that he made use of the source codes provided by Coetzee. At that time, the latest AMPS data became available and Brewers Ltd acquired this data and sent it to Coetzee who converted the data from the UFL file to an answers and weightings database.¹⁶ Coetzee had not yet converted this data for Haupt. By using the "tree-preparer" programme Coetzee also created a tree.txt file and returned the conversions and the tree.txt file to Brewers Ltd. In addition Coetzee supplied databases which had previously been created for the Data Explorer programme to Brewers Ltd.¹⁷ Brewers Ltd marketed its Brewer's AMPS programme, together with all the converted data and tree.txt files. Haupt's programme malfunctioned due to the presence of a similar programme, namely the Brewer's AMPS programme.¹⁸ At this stage Haupt became aware of the alleged copyright infringements. He applied to the *court a quo* for an order interdicting the respondents from infringing his alleged copyright in the computer programme, Data Explorer, and various databases. The *court a quo* held that Haupt's claim could not be sustained and dismissed the application.¹⁹ It is this decision of the *court a quo* which gave rise to the judgment of the Supreme Court of Appeal under discussion.

15 *Haupt v Brewers Marketing Intelligence (Pty) Ltd* 2006 4 SA 458 (SCA) para 41.

16 *Haupt v Brewers Marketing Intelligence (Pty) Ltd* 2006 4 SA 458 (SCA) para 4.

17 *Haupt v Brewers Marketing Intelligence (Pty) Ltd* 2006 4 SA 458 (SCA) para 14.

18 *Haupt v Brewers Marketing Intelligence (Pty) Ltd* 2006 4 SA 458 (SCA) para 15.

19 *Haupt v Brewers Marketing Intelligence (Pty) Ltd* 2006 4 SA 458 (SCA) para 1.

3 Decision of the Supreme Court of Appeal

Two main issues had to be considered by the court. Firstly, the court had to determine whether or not the *court a quo* was correct in its assessment of the law and consequently its judgment. Secondly, and depending on its finding against the judgment of the *court a quo*, the court had to decide if a remedy availed the appellant.

The court commenced with an analysis of the facts and the judgment of the *court a quo*. It noted that the Project AMPS program, as it existed on 31 July 1998, constituted a computer programme eligible for copyright.²⁰ This was so, regardless of the fact that it sometimes produced incorrect results and "sections of the raw data" could not be read at all. Ownership in the Project AMPS programme vested in Brewers Ltd, as Coetzee was an independent contractor working for Brewers Ltd when the programme was first developed, and the company controlled the progress of the project through Haupt.

The court also held that the *court a quo* erred in holding that Haupt could not acquire copyright in the Data Explorer programme, as the programme was an improvement and refinement of the Project AMPS programme.²¹ If a work is eligible for copyright, an improvement or refinement of that work would similarly be eligible for copyright, even if the improved work involved an infringement of copyright in the original work, if it satisfies the requirement of originality.²² The term "original" does not mean that the work must be "new" and hence creativity is not a requirement *per se* to make a work original. The court referred to the Canadian case *CCH Canadian Ltd v Law Society of Upper Canada*²³ in which "original" was also interpreted as not requiring creativity, in which it was held:

20 *Haupt v Brewers Marketing Intelligence (Pty) Ltd* 2006 4 SA 458 (SCA) para 23.

21 *Haupt v Brewers Marketing Intelligence (Pty) Ltd* 2006 4 SA 458 (SCA) para 25.

22 *Haupt v Brewers Marketing Intelligence (Pty) Ltd* 2006 4 SA 458 (SCA) para 24. The Act does not contain a definition of the term "original." While it is clear that the work must originate from the author and not be copied from an existing source, it is not every work which is not copied that qualifies for protection in terms of the Act.

23 *CCH Canadian Ltd v Law Society of Upper Canada* 2004 1 SCR 339 para 25.

[A]n original work must be the product of an author's exercise of skill and judgment. The exercise of skill and judgment required to produce the work must not be so trivial that it could be characterised as a purely mechanical exercise. While creative works will by definition be "original" and covered by copyright, creativity is not required to make a work "original."

Where a work is an improvement or refinement of original work, the alteration to the original work must be substantial.²⁴ The court referred to *Interlego A G v Tyco Industries Inc*,²⁵ where the Privy Council said in respect of an alteration to an artistic work:

There must in addition be some element of material alteration or embellishment which suffices to make the totality of the work an original work. Of course, even a relatively small alteration or addition quantitatively may, if material, suffice to convert that which is substantially copied from an earlier work into an original work. Whether it does so or not is a question of degree having regard to the quality rather than the quantity of the addition. But copying, *per se*, however much skill or labour may be devoted to the process, cannot make an original work.

The court concluded that the converter programme and the tree preparer programme were the products of substantial skill, judgment and labour.²⁶ The Data Explorer programme, though an improvement or refinement of the Project AMPS programme, therefore satisfied the originality requirement and attracted copyright in its own right. An author may therefore make use of existing material and yet achieve originality in respect of the product which he produces. The work produced must be more than a mere imitation of the earlier work. The novelty must in some measure be due to the application of the author's own skill, judgment or labour.²⁷

The Court also noted that after 31 July 1998 Haupt exercised control over the writing of the computer programme.²⁸ For this reason, copyright in the Data Explorer programme, which included the search instructions and the graph instructions and also the copyright in the converter and the tree preparer programme, vested in

24 *Biotech Laboratories (Pty) Ltd v Beecham Group PLC* 2002 4 SA 249 (SCA) 257H-I.

25 *Interlego A G v Tyco Industries Inc* 1989 AC 217 (PC) 263.

26 *Haupt v Brewers Marketing Intelligence (Pty) Ltd* 2006 4 SA 458 (SCA) para 36. The court thus applied the "sweat of the brow" test, which is still firmly entrenched in South African copyright law.

27 Precisely how much skill or labour he needs to contribute will depend upon the facts of each particular case. See also *Appleton v Harnischfeger Corporation* 1995 2 SA 247 (A) 262.

28 *Haupt v Brewers Marketing Intelligence (Pty) Ltd* 2006 4 SA 458 (SCA) para 41.

Haupt.²⁹ By reproducing part of the Data Explorer programme in the Brewer's AMPS programme, Brewers Ltd and Brewer infringed Haupt's copyright in the Data Explorer programme.³⁰ Coetzee assisted Brewer and Brewers Ltd in infringing Haupt's copyright in the Data Explorer programme by providing the source code in respect of the search function and also the source code required to incorporate the graphics server.³¹ In the premises Coetzee made common cause with Brewer and Brewers Ltd and co-operated with them in so far as the infringement by them of Haupt's copyright in the Data Explorer programme was concerned. By so doing, Coetzee also infringed Haupt's copyright in the Data Explorer programme.³² Having decided that copyright in the Data Explorer programme vested in Haupt and that all three respondents infringed Haupt's copyright in the programme,³³ the court granted an interdict and ordered the respondents *inter alia* to deliver up all infringing copies of the work to the applicant within seven days.³⁴

4 Analysis of and comment on the decision

The *court a quo* gave scant attention to the real issues of the case. These were, however, tackled by the Supreme Court of Appeal. In the ensuing discussion the main issues clarified by the court are analysed *seriatim*.

Firstly, clarity was brought on the definition of "computer programmes" as contained in the Act. Until 1992 the Act listed "computer programmes" as literary works. Currently computer programmes are listed separately and enjoy copyright protection in South Africa as a *sui generis* copyright item.³⁵ The Act now describes a literary work as a work which "includes, irrespective of literary quality and in whatever mode or form expressed, tables and compilations, including tables and compilations of data stored or embodied in a computer or a medium used in conjunction with a

29 *Haupt v Brewers Marketing Intelligence (Pty) Ltd* 2006 4 SA 458 (SCA) para 42.

30 *Haupt v Brewers Marketing Intelligence (Pty) Ltd* 2006 4 SA 458 (SCA) para 45.

31 *Haupt v Brewers Marketing Intelligence (Pty) Ltd* 2006 4 SA 458 (SCA) para 46.

32 *Haupt v Brewers Marketing Intelligence (Pty) Ltd* 2006 4 SA 458 (SCA) para 46.

33 *Haupt v Brewers Marketing Intelligence (Pty) Ltd* 2006 4 SA 458 (SCA) paras 45-46.

34 *Haupt v Brewers Marketing Intelligence (Pty) Ltd* 2006 4 SA 458 (SCA) para 51.

35 Section 2(1) *Copyright Act* 68 of 1978. See also *Northern Office Microcomputers v Rosenstein* 1981 4 SA 123 (C). Pistorius and Visser 1992 *SA Merc LJ* 346 have questioned the wisdom of creating this niche category. See also Tong 2005 *SALJ* 513, 519.

computer, *but not a computer programme*."³⁶ Computer programmes are defined in the Act as "a set of instructions fixed or stored in any manner and which, when used directly or indirectly in a computer, directs its operation to bring about a result."³⁷ The court clarified the fact that a programme could constitute a computer programme eligible for copyright even if it produces incorrect results.³⁸ Thus, the Act simply requires that the programme produces a "result". The question of whether or not the result is correct is irrelevant to the enquiry. Although the Act defines "computer programme," it does not define the term "computer."³⁹ One of the drawbacks of leaving "computer" undefined is that the unauthorised use of computer programmes contained in items like vehicles and telephones that have computerised security devices could well be within its ambit. There is therefore need for certainty. However, a foreseeable challenge that the legislative authority may face is the difficulty in formulating a satisfactory definition that possesses sufficient flexibility to accommodate advances in computer technology. In the light of this challenge, it is recommended that the definition be broadly worded so as not to become obsolete with rapid technological change.

Secondly, the fact that copyright law treats computer programmes and databases differently was also highlighted. The distinction is important when determining the author of a work as the term "author" does not bear the meaning of "the person who first makes or creates a work" in all cases, but depends on the nature of the work.⁴⁰ In the case of a computer programme, *ex lege*, and in the absence of a written agreement between the parties, the author is "the person who exercised control over the making of the computer programme."⁴¹ This is not true of databases, which are literary works whose authors are the persons who actually first make or create

36 Section 1(1)(xxviii) *Copyright Act* 68 of 1978.

37 Section 1(1)(x) *Copyright Act* 68 of 1978. This current definition for a computer program in the Act is in conflict and suggests a shift away from the definition of a computer program in the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) (Annex 1C of the Marrakesh Agreement Establishing the World Trade Organisation, signed in Marrakesh, Morocco on 15 April 1994) which does not divorce computer programs from literary works. There is therefore a difference between the South African and international handling of the protection of a computer program.

38 *Haupt v Brewers Marketing Intelligence (Pty) Ltd* 2006 4 SA 458 (SCA) para 31.

39 The definition is left to the courts who are expected to adopt the contemporary meaning of the word.

40 Section 1(1)(iv) *Copyright Act* 68 of 1978.

41 Section 1(1)(iv)(i) *Copyright Act* 68 of 1978. This can be distinguished from the author of a book, who is the person who first makes or creates the work.

them.⁴² The court held that while Haupt had copyright in the Data Explorer programme, Coetzee owned the copyright in the databases used by the programme.⁴³ The practical effect of this distinction is an example of legislation not keeping pace with reality, because almost all computer programmes access a database of some kind. In this regard, the wisdom in divorcing computer programmes from literary works is questioned.⁴⁴

The relevance of determining the author of a work also lies in the fact that in the ordinary course of events, authorship and the first ownership of copyright will inhere in the same person.⁴⁵ However, this is not inevitable, and in certain exceptional circumstances authorship and first ownership may be separated.⁴⁶ An exception which applies to computer programmes concerns the case of a work "made in the course of the author's employment" by another person under a contract of employment. In this event, the employer is "the owner of any copyright subsisting in the work."⁴⁷ In the case of *King v South African Weather Services*⁴⁸ the court pronounced on the meaning of the phrase "in the course of employment," as found in section 21(1)(d) of the Act.⁴⁹ It was held that for the purposes of the section, the answer to the question of what constitutes being "in the course of employment" remains primarily a factual issue that depends not only on the terms of the employment contract but also on the particular circumstances in which the work was created. It appeared to the judge to be dangerous to formulate generally applicable rules to determine whether or not a work was authored in the course of the employee's employment.⁵⁰ The conclusion that the inquiry is a factual matter was justified on the basis of the

42 Section 1(1)(iv)(a) *Copyright Act* 68 of 1978.

43 *Haupt v Brewers Marketing Intelligence (Pty) Ltd* 2006 4 SA 458 (SCA) para 39.

44 See also Pistorius and Visser 1992 *SA Merc LJ* 346; Tong 2005 *SALJ* 513, 519.

45 Section 21(1)(a) *Copyright Act* 68 of 1978.

46 Section 21(1)(b)-(d) *Copyright Act* 68 of 1978.

47 Section 21(1)(d) *Copyright Act* 68 of 1978. Parties are, however, allowed to contract out of the section 21(1)(d) provision. In this way, an employer may agree that an employee will be the first owner of the copyright in a work that has been made in the course of employment - see s 21(1)(e) *Copyright Act* 68 of 1978.

48 *King v South Africa Weather Services* 2009 3 SA 13 (SCA).

49 *King v South Africa Weather Services* 2009 3 SA 13 (SCA) paras 8-9.

50 *King v South Africa Weather Services* 2009 3 SA 13 (SCA) para 17, with reference to *Trewhella Bros (UK) Ltd v Deton Engineering (Pty) Ltd* 57 JOC (A); *Stephenson Jordan & Harrison Ltd v Macdonald and Evans* 1952 69 RPC 10 (CA); *Noah v Shuba* 1991 FSR 14 (Ch); *Morewear Industries (Rhodesia) Pvt Ltd v Irvine* 1960 BPR 202 (Federation of Rhodesia and Nyasaland).

principle that the scope of employment may change explicitly or by implication during the course of employment.⁵¹ Such changes may have a bearing on whether or not a particular work was created during the course of employment and consequently on whether the author or the employer is the copyright owner. While this may be the case, it is cautioned that such an approach may have the undesirable effect that in any given case, a factual analysis that goes beyond the provisions of the employment contract would also need to be conducted.

Thirdly, it was highlighted that a person may because of his "control" over the making of a computer programme be the owner of that programme even if the creator of the programme is an independent contractor, as in all situations there will have to be a factual enquiry as to who actually has control over the way in which the maker creates the computer programme.⁵² The issue is whether or not the contribution of the independent contractor to the making is sufficient for a factual finding of control. In concluding that Haupt exercised control over the making of the amendments to the computer programme and was therefore the copyright owner of such amendments, the court considered various factors relating to the working relationship of the parties.⁵³

Fourthly, the court clarified the fact that in terms of the Act, if a work is eligible for copyright, an adaptation⁵⁴ of that work may also be eligible for copyright,⁵⁵ even if the

51 *King v South Africa Weather Services* 2009 3 SA 13 (SCA) para 23.

52 *Haupt v Brewers Marketing Intelligence (Pty) Ltd* 2006 4 SA 458 (SCA) para 41. The Supreme Court of Appeal supported the view of the *court a quo* that the person who exercises control over the making of a computer programme is the person who has the power of regulation of the matter in which the person who makes the programme is to do his or her work. One therefore does not need to be a computer programmer to be able to control the writing of a computer programme.

53 For example, Haupt instructed Coetzee as to the end result that was to be achieved. Coetzee did technical work and improvements. All along, Coetzee was in constant contact with Haupt and he accepted and executed detailed instructions from Haupt. Coetzee submitted his work to Haupt, who approved and checked the work submitted. In the properties section of the Data Explorer Programme, Coetzee indicated that Haupt's business owned the copyright. The allegation that Haupt was the copyright owner was never disputed. Haupt could at any time prescribe in which direction the development should proceed or could terminate further development, if he so wished. Haupt was therefore in a position of authority over Coetzee. Coetzee also worked for Haupt on a full-time basis for two months for a monthly salary of R20 000. The combination of all these factors led the Supreme Court of Appeal to conclude that Haupt was the owner of the copyright in the computer programme.

54 Although the court used the terms "improvement" and "refinement," for the purposes of this case note the term "adaptation" is preferred, as it is the term used in the Act.

adaptation involved an infringement of copyright in the original work,⁵⁶ if it satisfies the requirement of originality.⁵⁷ On this basis, Haupt therefore acquired copyright in the Data Explorer notwithstanding the fact that the programme was as a result of an unauthorised adaptation of the Project AMPS programme, which belonged to Brewers Ltd. A matter of concern that arises is the possibility of an author's being sued for infringement even though he has acquired copyright in a work that he has created by making unauthorised adaptations to another's copyright material. This issue relates on the one hand to the question of whether or not unauthorised adaptations infringe copyright. On the other hand it relates to the question of whether or not the law adequately protects copyright owners in situations where infringement takes the form of unauthorised adaptations of computer programmes. These matters are now discussed.

In terms of the Act, "copyright is infringed by any person, not being the owner of the copyright and who, without licence, does or causes any other person to do, in the Republic, any act which the owner has exclusive rights to do or to authorise."⁵⁸ Copyright vests in the owner of copyright in a computer programme the exclusive right to do or to authorise the doing of the following acts:⁵⁹

- (a) Reproducing the computer programme in any manner or form;
- (b) Publishing the computer programme if it was hitherto unpublished;
- (c) Performing the computer programme in public;
- (d) Broadcasting the computer programme;
- (e) Causing the computer programme to be transmitted in a diffusion service, unless such service transmits a lawful broadcast, including the computer programme, and is operated by the original broadcaster;
- (f) Making an adaptation of the computer programme;
- (g) Doing, in relation to an adaptation of a computer programme, any of the acts specified in relation to the computer programme in paragraphs (a) to (e) inclusive;

55 A basic requirement for obtaining copyright protection is that a work must be "original" (s 2(1)). Other requirements are that (a) the work must be a work listed in s 2 of the Act as work which is eligible for copyright protection; (b) the work must be reduced to a *material form* (s 2(2)); (c) in addition, copyright must have been conferred by virtue of nationality, domicile or residence (s 3) or as a result of first publication of the work being in South Africa or any Berne Convention country (s 4). If the aforementioned criteria are met then copyright protection in a computer programme will be obtained. There is no need to register the copyright and, in fact, there is no mechanism whereby one can register copyright in a computer programme.

56 Section 2(3) *Copyright Act* 68 of 1978 provides: "A work shall not be ineligible for copyright by reason only that the making of the work, or the doing of any act in relation to the work, involved an infringement of copyright in some other work."

57 *Haupt v Brewers Marketing Intelligence (Pty) Ltd* 2006 4 SA 458 (SCA) para 24.

58 Section 23(1) *Copyright Act* 68 of 1978.

59 Section 11B (a)-(h) *Copyright Act* 68 of 1978.

(h) Letting, or offering or exposing for hire by way of trade, directly or indirectly, a copy of the computer programme.

Of relevance to the facts of the case is the right to make an adaptation or to authorise the making of an adaptation of the computer programme, which is to be found in section 11B(f) above. In terms of the Act "adaptation" in relation to a computer programme includes "the making of a version of the programme in a programming language, code or notation different from that of the programme or a fixation of the programme in or on a medium different from the medium of fixation of the programme."⁶⁰ Where unauthorised adaptations take place, the copyright owner's right to make or authorise the making of an adaptation of the computer programme⁶¹ is infringed regardless of the intentions of the infringer. The consequences of the unauthorised adaptations are irrelevant to the enquiry, whether or not copyright infringement took place. In other words, the fact that Haupt's Data Explorer programme satisfied the originality requirement and attracted copyright in its own right is irrelevant to the enquiry into whether or not Haupt infringed Brewers Ltd's copyright.

The fact that one develops an original computer programme from the unauthorised adaptations is not a justification for infringing copyright. The copyright owner of the adapted computer programme should sue for criminal liability an author who has acquired copyright in a work that he created by making an unauthorised adaptation to the former's copyright material. However, in terms of section 27(1) of the Act, the copyright owner of the adapted computer programme cannot sue such an author for criminal liability.⁶² In the discussion that follows, it will be determined whether or not the law adequately protects copyright owners in situations where infringement takes the form of unauthorised adaptations of computer programmes.

60 Section 1(1) *Copyright Act* 68 of 1978.

61 Section 11B(f) *Copyright Act* 68 of 1978.

62 While civil remedies are available (ss 24-26), the benefits of criminalisation should not be overlooked.

5 Unauthorised adaptations - is criminalisation a solution?

Infringement of copyright can lead to criminal liability in terms of section 27(1) of the Act, which provides as follows:

Any person who at a time when copyright subsists in a work, without the authority of the owner of the copyright-

- (a) makes for sale or hire;
- (b) sells or lets for hire or by way of trade offers or exposes for sale or hire;
- (c) by way of trade exhibits in public;
- (d) imports into the Republic otherwise than for his private or domestic use;
- (e) distributes for purposes of trade; or
- (f) distributes for any other purposes to such an extent that the owner of the copyright is prejudicially affected, articles which he knows to be infringing copies of the work, shall be guilty of an offence.

The maximum penalty that may be imposed on conviction for this offence is a fine or imprisonment for a period of three years in the case of first offenders.⁶³ In the case of repeat offenders the maximum penalty is a fine or imprisonment for a period of five years. The fine can amount to a maximum of R60 000-00 for first offenders and R100 000-00 for repeat offenders.⁶⁴ The Act also provides for civil remedies to address infringements of copyright.⁶⁵ The remedies provided for include actions for damages, interdicts, actions for the delivery of infringing copies and any other actions which will be at the disposal of a plaintiff in respect of infringements of proprietary rights.⁶⁶

The protection granted a copyright owner by the Act is narrowly defined. It is only when one of the actions described in section 27(1) is committed in respect of an infringing copy of a computer programme that an offence in terms of the Act is committed. This means that criminal liability in terms of section 27(1) presupposes two elements, namely the existence of an "infringing copy" of a computer programme, and the unauthorised selling, letting for hire or distribution of such a copy. The elements of the offence in section 27(1) do not in any way relate to the adaptation of computer programmes. In this sense, protection of copyright in a

63 Section 27(6) *Copyright Act* 68 of 1978.

64 Section 27(6) *Copyright Act* 68 of 1978 read with s 1 of the *Adjustment of Fines Act* 101 of 1991.

65 Sections 24-26 *Copyright Act* 68 of 1978.

66 Section 24(1) *Copyright Act* 68 of 1978.

computer programme is not wide enough to prevent unauthorised adaptations of computer programmes.

In the light of the above considerations, the issue which needs to be considered is whether unauthorised adaptations of computer programmes *per se* should attract a criminal sanction. One aspect of the issue is whether or not it is justifiable to sanction this action with criminal penalties. The other is whether or not it is necessary to create a new offence to criminalise this action, if it is accepted that the action should lead to criminal liability. In addressing these questions, guidance will be sought from the legal position in the UK on the issue of unauthorised adaptation of computer programmes. The UK has enacted legislation that particularly addresses computer crime.⁶⁷ The question arises: should South Africa follow the same example?

6 Copyright in computer programmes in the UK

Computer programmes have been subject to copyright protection in the UK as literary works at least since the *Copyright (Computer Software) Amendment Act* 1985 came into force. In the discussion below, the current Act regulating copyright in computer programmes in the UK is discussed.

6.1 *The Copyright, Designs and Patent Act 1988*

Copyright in the UK is governed by the *Copyright, Designs and Patent Act* 1988⁶⁸ in terms of which computer programmes enjoy copyright protection as literary works.⁶⁹ Copyright subsists in an original literary work,⁷⁰ including a computer programme,⁷¹

67 The *Computer Misuse Act* 1990.

68 Hereinafter the *CDP Act*. This Act was amended by the Copyright (Computer Programmes) Regulations (1992) to implement the European Union (EU) Software Directive (Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs, now replaced by European Parliament and Council Directive 2009/24/EC of 23 April 2009). The *CDP Act* must be read in accordance with the Directive. In turn, the Directive must be read in accordance with both the TRIPS Agreement (1994) and the World Intellectual Property Organisation (WIPO) Copyright Treaty (1996), both of which are binding on the EU. See Manches Plus 2011 www.manches.com.

69 This position differs from that in South Africa, where computer programmes are currently listed separately and enjoy copyright protection as *sui generis* copyright items (s 2(1) *Copyright Act* 68 of 1978).

70 Section 1(1)(a) *Copyright, Designs and Patent Act* 1988.

71 Section 3(1)(b) *Copyright, Designs and Patent Act* 1988.

preparatory design material for a computer programme,⁷² a database⁷³ and a table or compilation other than a database.⁷⁴ There is, however, no copyright unless and until the work is recorded.⁷⁵ Section 16 invests the owner of the copyright with the exclusive right to perform *inter alia* the following acts:⁷⁶ to copy the work,⁷⁷ to issue copies of the work to the public,⁷⁸ and to make an adaptation of the work.⁷⁹ Copyright in a work is infringed by a person who without the licence of the copyright owner does or authorises another to do any of the acts restricted by the copyright.⁸⁰ An infringement of copyright is actionable by the copyright owner.⁸¹ The Act provides for civil remedies to address infringements of copyright⁸² as well as criminal liability for making or dealing with infringing articles.⁸³

Section 107 of the *CDP Act* provides as follows:

- (1)
- (2) A person commits an offence who, without the licence of the copyright owner –
 - (a) Makes for sale or hire, or
 - (b) Imports into the United Kingdom otherwise than for his private and domestic use, or
 - (c) Possesses in the course of a business with a view to committing any act infringing the copyright, or
 - (d) In the course of a business –
 - (i) Sells or lets for hire, or
 - (ii) Offers or exposes for sale or hire,
 - (iii) Exhibits in public, or
 - (iv) Distributes, or
 - (e) Distributes otherwise than in the course of a business to such an extent as to affect prejudicially the owner of the copyright, an article which is, and which he knows or has reason to believe is, an infringing copy of a copyright work.

Although section 107 of the *CDP Act* is phrased differently from section 27(1) of the Act, they are similar in that criminal liability in terms of both sections presupposes the

72 Section 3(1)(c) *Copyright, Designs and Patent Act* 1988.

73 Section 3(1)(d) *Copyright, Designs and Patent Act* 1988.

74 Section 3(1)(a) *Copyright, Designs and Patent Act* 1988.

75 Section 3(2) *Copyright, Designs and Patent Act* 1988.

76 Referred to as "acts restricted by the Act."

77 Section 16(1)(a) read with s 17 *Copyright, Designs and Patent Act* 1988.

78 Section 16(1)(b) read with s 18 *Copyright, Designs and Patent Act* 1988.

79 Section 16(1)(e) read with s 21 *Copyright, Designs and Patent Act* 1988.

80 Section 16(2) *Copyright, Designs and Patent Act* 1988.

81 Section 96(1) *Copyright, Designs and Patent Act* 1988.

82 Section 97 *Copyright, Designs and Patent Act* 1988.

83 Section 107 *Copyright, Designs and Patent Act* 1988.

existence of an infringing copy and the unauthorised distribution of such a copy. The criminal offence in terms of section 107, like that in terms of section 27(1), does not in any way relate to the unauthorised adaptation of computer programmes. Thus, while the *CDP Act* grants the copyright owner the right to make an adaptation of the work⁸⁴ and makes it clear that unauthorised adaptations infringe copyright,⁸⁵ it does not criminalise the act of making unauthorised adaptations. In this regard, the protection of copyright in terms of section 107 is also not wide enough to prevent unauthorised adaptations of computer programmes.

This apparent inability of the *CDP Act* to cope with such offences was highlighted in a number of failed prosecutions.⁸⁶ The case of *R v Gold*⁸⁷ is significant in that it led to the *Computer Misuse Act* being developed and passed into law in 1990. In this case, Gold and Schifreen, using conventional home computers, gained unauthorised access to the British Telecom Prestel account. They were charged under section 1⁸⁸ of the *Forgery and Counterfeiting Act* 1981 and convicted. They appealed, claiming *inter alia* that the *Forgery and Counterfeiting Act* had been misapplied to their conduct. They were acquitted but the prosecution appealed to the House of Lords, which upheld the acquittal in 1988. The *Forgery and Counterfeiting Act* was found not to have been intended for computer misuse offences.⁸⁹ Lord Brandon of Oakbrook held:⁹⁰

We have accordingly come to the conclusion that the language of the Act was not intended to apply to the situation which was shown to exist in this case. The submissions at the close of the prosecution case should have succeeded. It is a conclusion which we reach without regret. The Procrustean attempt to force these facts into the language of an Act not designed to fit them produced grave difficulties for both judge and jury which we would not wish to see repeated. The appellants' conduct amounted in essence... to dishonestly gaining access to the relevant Prestel data bank by a trick. That is not a criminal offence. If it is thought desirable to make it so, that is a matter for the legislature rather than the courts.

84 Section 16(1)(e) read with s 21 *Copyright, Designs and Patent Act* 1988.

85 Section 16(2) *Copyright, Designs and Patent Act* 1988.

86 See for example *R v Gold* 1988 1 AC 1063 and *Cox v Riley* 1986 CLR 460.

87 *R v Gold* 1988 1 AC 1063.

88 The section provides that a person is guilty of forgery if he makes a false instrument, with the intention that he or another shall use it to induce somebody to accept it as genuine, and by reason of so accepting it to do or not to do some act to his own or any other person's prejudice.

89 The problem was that the machine was the "deceived" and the "false instrument" at the same time. Normally in a forgery case it is necessary to prove that some person was deceived.

90 *R v Gold* 1988 1 AC 1063.

In the light of the judgment in this case, it therefore became clear that this was an area where new and appropriate legislation was required. A Law Commission was set up to look at the area of computer misuse and as a result of its findings and recommendations the *Computer Misuse Act* was enacted.⁹¹

6.2 *The Computer Misuse Act 1990*

*The Computer Misuse Act*⁹² was created specifically to deal with computer crime. The *CMA* introduced the following new criminal offences: unauthorised access to computer material;⁹³ unauthorised access to computer material with intent to commit or facilitate commission of further offences;⁹⁴ and unauthorised modification of computer material.⁹⁵ The offence of unauthorised modification of computer material was dealt with in section 3 of the *CMA* which provided as follows:

- (1) A person is guilty of an offence if-
 - (a) he does any act which causes an unauthorised modification of the contents of any computer; and
 - (b) at the time when he does the act he has the requisite intent and requisite knowledge.
- (2) For the purposes of subsection (1)(b) above the requisite intent is an intent to cause a modification of the contents of any computer and by so doing-
 - (a) to impair the operation of any computer;
 - (b) to prevent or hinder access to any programme or data held in any computer; or
 - (c) to impair the operation of any such programme or the reliability of any such data.
- (3) The intent need not be directed at-
 - (a) any particular computer;
 - (b) any particular programme or data or a programme or data of any particular kind;or
 - (c) any particular modification or a modification of any particular kind.
- (4) For the purposes of subsection (1)(b) above the requisite knowledge is knowledge that any modification he intends to cause is unauthorised.

The above section was replaced by a new section 3 which was introduced by section 36 of the *Police and Justice Act 2006*.⁹⁶ The new section 3⁹⁷ now provides for the

91 Law Commission (UK) 1989 www.underground-book.net.

92 Hereafter *CMA*.

93 Section 1 *Computer Misuse Act 1990*.

94 Section 2 *Computer Misuse Act 1990*.

95 Section 3 *Computer Misuse Act 1990*. The focus of this case note is on unauthorised adaptation (modification) of computer material. The other crimes in terms of this Act will therefore not be discussed.

96 See *Police and Justice Act 2006*.

offence of "unauthorised acts with intent to impair, or with recklessness as to impairing, operation of computer etc."⁹⁸ The reason was to make Denial-of-Service (DoS) attacks⁹⁹ illegal. This was necessary as the original section 3 did not make it clear whether DoS attacks were an offence.¹⁰⁰ The offence¹⁰¹ is thus, now committed by a person who does any unauthorised act relating to a computer, knowing that the act is unauthorised, and intending the act to cause, or being reckless as to whether the act will cause one of the following; (a) the impairment of the operation of any computer; (b) the prevention or hindering of access to any programme or data held in any computer; (c) the impairment of the operation of any such programme or the reliability of any such data; or (d) the enablement of any of the things mentioned in (a) to (c). Unauthorised modification of computer programmes constitutes an offence under this section.

7 Proposed way forward for South Africa – fitting in the missing piece

It has been indicated above that in the UK unauthorised modifications of computer programmes are subject to a criminal sanction. It is proposed that the same position should prevail in South Africa, but that this purpose should be achieved using an approach different from the one adopted in the UK. Instead of developing a "Computer Misuse Act" or new legislation for this purpose, it is proposed that the *South African Copyright Act* be amended by inserting section 27(1)(A) providing for the offence of unauthorised adaptations of computer programmes. The reasons are twofold. Firstly, section 27(1) does not include unauthorised adaptations of computer programmes in its ambit of criminal liability. Having the proposed section 27(1)(A) follow immediately after section 27(1) dovetails the two sections and closes the gap left by section 27(1). Consequently, the penalties stipulated in section 27(6) would also apply. Secondly, the issue of unauthorised adaptations is one that can adequately be covered in the Act. It is therefore strongly felt that there is no need to develop new legislation for this purpose.

97 The relevant provision came into force on 1 October 2008.

98 See the *Computer Misuse Act* 1990.

99 These are attacks which overload a computer with data so it can no longer function properly.

100 See *Director of Public Prosecutions v Lennon* 2006 EWHC 1201 (Admin).

101 The new s 3 offence as introduced by the *Police and Justice Act* 2006.

When phrasing the proposed section careful consideration should be given to the manner in which the elements of the offence of unauthorised adaptation of computer programmes is described. It is proposed that the criminal action be widely defined. It should not be limited by reference to specific consequences. In other words, the Act should criminalise unauthorised adaptations without regard to the consequences. The suggestion is based on the fact that in terms of section 11B(f) of the Act unauthorised adaptations infringe copyright regardless of the consequences of such infringements.¹⁰² It is therefore only reasonable that the proposed criminal action should draw from section 11B(f). It is further proposed that the criminal action should not contain as one of its components "actual damage" resulting from the adaptations. However, the fact that an unauthorised adaptation caused damage should be a factor to take into account upon sentencing in any given case.

The unlawfulness of the adaptation must consist of the absence of authority to make the adaptation in question. With regard to the issue of culpability, it is recommended that the required form of culpability for the proposed offence of 'unlawful adaptation of a computer program' should be intent. Intent would naturally include knowledge of the unlawfulness of the modification. The accused must, therefore, have known that he had no authority to cause the adaptation of the computer programme in question. The knowledge component of the intent for this offence should be interpreted sufficiently wide to make it clear that it includes cases of wilful blindness. Consequently the knowledge component should be interpreted to include circumstances where the accused ought to have known or suspected that he may not have had authority to make the adaptation but nevertheless proceeded with his actions, without confirming the presence or absence of the requisite authority.

The discussions above lead to it being proposed that the *Copyright Act* be amended by inserting a new section criminalising unauthorised adaptations of computer programmes. It is recommended that the proposed section 27(1)(A) should read as follows:

¹⁰² It is in this regard that it has been argued that a copyright owner should sue an author who has acquired copyright in a work that he or she has created by making unauthorised modification to the former's copyright material.

- (1) Any person, who at a time when copyright subsists in a computer programme, intentionally and without the authority of the owner of the copyright makes an adaptation of the computer programme, is guilty of an offence.
- (2) For the purposes of this section, the consequences of the unauthorised adaptation shall be irrelevant.

It is submitted that the earlier discussion shows that this proposed section is the missing piece which needs to be fitted in, in order to close the gap that currently exists in South African law with regard to unauthorised adaptations of computer programmes.¹⁰³

8 Conclusion

Although the law with regard to copyright in computer programmes was clarified in *Haupt t/a Softcopy v Brewers Marketing Intelligence (Pty) Ltd*,¹⁰⁴ a number of unresolved issues also surfaced, as has been highlighted in this discussion. Of most significance is the shortcoming of the Act in its failure to provide adequate protection against unauthorised adaptations of computer programmes. It has been argued that the protection section 27(1) affords owners of the copyright in computer programmes is not wide enough to prevent unauthorised adaptations. It is recommended that the Act be amended by the insertion of a section 27(1)(A) which makes it an offence to make an unauthorised adaptation of a computer programme.

103 The procedural aspects of this proposed offence fall outside the scope of the article and are therefore not discussed.

104 *Haupt v Brewers Marketing Intelligence (Pty) Ltd* 2006 4 SA 458 (SCA).

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List of abbreviations

CDP	Copyright, Designs and Patents Act
CMA	Copyright Misuse Act
DoS	Denial-of-Service
SALJ	South African Law Journal
SA Merc LJ	South African Mercantile Law Journal
TRIPS	Agreement on Trade-Related Aspects of Intellectual Property Rights