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Indirect Copying of Computer Programs – Infringing or Non-Infringing?

The English High Court has recently considered the extent to which copyright law enables owners of copyright in software and manuals to prohibit the development and commercialization of functional reproductions of software. In the UK and in Germany, courts have been reluctant to find copyright infringement when a competitor designs a computer program with functionality similar to that owned by the copyright owner if the competitor does not have access to the source code of the original computer program. However, although UK and German courts have reached similar conclusions when determining whether the functionality of the original computer program is protected by copyright, the reasoning adopted by the courts in each jurisdiction is different and there are apparently diverging views on the extent to which programming languages and interfaces may be protected by copyright.

Fortunately, the UK courts have identified and referred a number of questions to the ECJ on the interpretation of the Software Directive and the Information Society Directive (the EU Directives) as they apply to copyright protection for computer programs as literary works. Bearing in mind that national law on copyright protection for computer programs in each of the UK and Germany has its origins in the EU Directives, this article considers recent court decisions in the UK and in Germany on the extent to which it is permissible to create a computer program designed to emulate the functionality of another computer program. The analysis considers the questions raised solely by treating computer programs as eligible for copyright protection as literary works as a detailed analysis of whether other forms of copyright (e.g., artistic copyright) may provide protection in certain circumstances is beyond the scope of this article. The authors also discuss the issues to be referred to the ECJ and the extent to which the courts in the UK and Germany have reached similar conclusions in similar cases.

I. The EU Standard for Copyright in Computer Programs

The law in both the UK and Germany has its origins in the Software Directive¹ and, to a lesser extent, in the Information Society Directive.² The Software Directive was designed to harmonise the law in EU Member States on the extent to which computer programs are protected by copyright as literary works.

It is settled law that computer programs are to be protected by copyright as a literary work.³ It is also settled law that ideas, procedures, methods of operation or mathematical concepts as such are not protected.⁴ The Software Directive obliges Member States to protect “computer programs, by copyright, as literary works” and further states that copyright protection for computer programs applies to the “expression in any form of a computer program”. Under the Software Directive, however, “ideas and principles which underlie any element of a computer program, including those which underlie its interfaces, are not protected by copyright”.⁵

1. Diverging Transposition of the Software Directive into UK and Germany Law

Whereas Germany has transposed the exact wording of the Software Directive into national law, the UK Parliament provided in section 3(1) of the Copyright, Designs and Patents Act 1988 (the CPDA) that computer programs and preparatory designs for computer programs were each to be protected as literary works. The wording of the CPDA differs from that used in the Software Directive and that used in German copyright law. The Software Directive and (accordingly) German copyright law defines the term “computer program” as comprising not only the software as such but also the preparatory design materials for the computer program (e.g. rough and detailed designs, concepts, flowcharts and workflow).⁶ Therefore, under German law, an infringement of preparatory design materials is an infringement of the copyright in a computer program. Arguably, the same is

3 See e.g., Article 10(1) of the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS Agreement) and Article 4 of the WIPO Copyright Treaty.

4 See e.g., *Baker v. Selden* 101 U.S. 99 (1879); Article 9(2) of TRIPS; and Article 2 of the WIPO Copyright Treaty.

5 In implementing the Software Directive into national law in the United Kingdom, Parliament did not expressly include a statement in the CPDA that it is only the “expression in any form of a computer program” that is protected. In *SAS Institute, Inc. v. World Programming Limited* [2010] EWHC 1829 (Ch), the High Court reiterated that domestic legislation that implements EU law must be construed as far as possible in conformity with EU law (*SAS Institute, Inc. v. World Programming Limited* [2010] EWHC 1829 (Ch) at paragraph 163) and further held that national courts must interpret domestic and European legislation as far as possible in the light of the wording and purpose of the relevant international agreements (*SAS Institute, Inc. v. World Programming Limited* [2010] EWHC 1829 (Ch) at paragraph 168). The German approach differs insofar as the German legislature implemented the Software Directive into national law by adding a new section regarding the protection of computer programs into the German Copyright Act (the Urheberrechtsgesetz or UrhG) that largely merely repeats the wording of the Software Directive and explicitly states that the underlying ideas and principles of a computer program are not protected. Hence, the German courts have, to date, hardly referred to the Software Directive when assessing claims of copyright infringement of software, even though the German courts have similarly held that national law has to be interpreted in the light of the Software Directive (see *Schricker/Loewenheim*, UrhG, 3rd edition 2006, vor §§ 69a ff. ref. 5).

6 See § 69a para. 1 UrhG.

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1 Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs as consolidated by Directive 2009/24/EC of 23 April 2009.

2 Directive 2001/29/EC of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society.

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not true in the UK as although the Software Directive appears to contemplate just one copyright in a computer program, the CPDA appears to contemplate two copyrights: one in the preparatory design material and one in the computer program itself.⁷

2. The Dichotomy Between Ideas and Expressions of Those Ideas

The distinction between ideas, procedures, methods of operation or mathematical concepts and the *expression* of those ideas, procedures, methods of operation or mathematical concepts is sometimes called the “idea/expression dichotomy”. While the rationale behind the idea/expression dichotomy is to “draw a line between copyright protection and the public domain”⁸, courts in a number of jurisdictions have found it difficult, when considering computer programs, to delineate clearly what constitutes an “idea” and what constitutes the “expression” of that idea. Indeed, judges and commentators have found that the phrase can lead to confusion.⁹ The UK courts have historically been reluctant to draw distinctions between ideas and the “expression” of those ideas. Under English law, copyright protects “original” works and infringement arises if a substantial part of that original work has been copied. The German courts are equally reluctant to determine precisely what is a mere idea and what is protected by copyright. Generally, a work is protected under German law if it is an individual and intellectual creation and shows a certain threshold of originality.¹⁰

II. The English High Court’s Questions for the ECJ

In *SAS Institute, Inc. v. World Programming Limited*,¹¹ the English High Court (the High Court) recently considered the extent to which copyright law enables owners of copyright in software and manuals to prohibit the development and commercialization of software “clones”. SAS Institute, Inc (SAS) alleged that World Programming Limited (WPL) infringed SAS’s copyright in its analytical software and manuals when WPL created a similar program designed to generate responses identical to those delivered by SAS’s software. WPL’s actions are common in the software industry and a number of cases in different jurisdictions have discussed similar allegations of copyright infringement in circumstances where the alleged infringer had no access to source code in creating its “clone”.¹²

⁷ This issue was recognised by the Court of Appeal in *Nova Productions Limited v. Mazooma Games Limited* [2007] All ER (D) 234 (Mar) at paragraph 28 where Jacob LJ continued “I do not think anything turns on the difference here. But one can think of cases where it might. Suppose for example different authors for the program and its preparatory material. When does the copyright expire – on different dates depending on the death of the respective author? Or suppose different dealings in the “two” copyrights – is it possible given that the [Software Directive] supposes only one copyright? The re-wording [of the Software Directive in the CPDA], as it nearly always does, throws up room for wholly unnecessary uncertainty and argument.”

⁸ See paragraph 206 of [2010] EWHC 1829 (Ch) citing Reinbothe and Lewinski, *The WIPO Treaties 1996: Commentary and Legal Analysis* (Butterworths 2002) at pp 46-47.

⁹ See e.g. *Ibcos Computers Limited v. Barclays Mercantile* [1993] FSR 497.

¹⁰ *Schricker/Loewenheim, l.c.*, § 2 ref. 8, 9.

¹¹ [2010] EWHC 1829 (Ch).

¹² See previous decisions of the UK courts in *Navitaire Inc v. easyJet Airline*

The issues raised in *SAS Institute, Inc. v. World Programming Limited* were not new as they again concerned the extent to which programming languages, interfaces and the functionality of a computer program can be protected by copyright as literary works. The case did, however raise fundamental issues of copyright law, namely:

“(i) the extent to which copyright protects ideas, procedures, methods of operation and mathematical concepts as distinct from expressions of those ideas, procedures, methods of operation and mathematical concepts;

(ii) the extent to which copyright protects the functionality and interfaces of computer programs and the programming languages in which they are expressed; and

(iii) the test to be applied to determine what amounts to a reproduction of a substantial part.”¹³

1. Facts

SAS has developed a proprietary analytical software system (the SAS System) which comprises an integrated set of programs or components enabling users to carry out a range of data processing tasks and analyses. Users can use the core component of the SAS System (Base SAS) to write and run applications to manipulate data. The functionality of the Base SAS can be extended by the use of additional components (e.g., SAS/ACCESS, SAS/GRAPH and SAS/STAT (the SAS Components)). Applications are written in a language known as the SAS Language. Over the years, a large number of applications have been written in the SAS Language.

WPL believed that there was a market for a software system that would be able to execute programs in the SAS Language and created a program called World Programming System (WPS) to do so. WPS was created with the intention of emulating the functionality of the SAS Components as closely as possible so that the same inputs would produce the same outputs. WPL did not have access to the source code of the SAS Components and did not attempt to decompile or reverse engineer the object code in the SAS System or the SAS Components. When writing WPS, WPL’s programmers had access to: (a) the responses produced by the SAS Learning Edition and the SAS Full Edition and (b) the SAS Manuals. WPL also obtained information on the SAS System from a number of other sources including seeking customer feedback and used its knowledge of statistics and other applications in writing WPS.

SAS alleged that WPL had:

- (i) copied the SAS Manuals when creating WPS and as a result infringed its copyright in the SAS Components;
- (ii) indirectly copied [of the programs comprising the SAS Components and as a result infringed its copyright

Company [2004] All ER (D) 162 (Dec) and *Nova Productions Limited v. Mazooma Games Limited* [2007] All ER (D) 234 (Mar) and the German courts in *OLG Karlsruhe* Decision of 14 April 2010, File No. 6 U 46.09, GRUR-RR 2010 at p 234 and *LG Köln* Decision of 16 June 2009, File No. 6 U 46/09, CR 2010 at p 59.

¹³ [2010] EWHC 1829 (Ch) at paragraph 196.

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in the SAS Components when copying the SAS Manuals;

- (iii) used a version of the SAS System (the SAS Learning Edition) in breach of the terms of its licences; and
- (iv) infringed its copyright in the SAS Manuals when creating its own documentation and a quick reference guide.

2. Decision

The High Court followed earlier decisions in *Navitaire Inc v. easyJet Airline Company*¹⁴ and *Nova Productions Limited v. Mazooma Games Limited*¹⁵ and concluded that:

- (a) programming languages were not protected by copyright under the EU Software Directive because the distinction between a computer program and its language is consistent with the distinction between expressions and ideas, procedures, methods of operation and mathematical formula;¹⁶
- (b) interfaces are not protected by copyright under the EU Software Directive;¹⁷
- (c) it is not, without more, an infringement of copyright in a computer program to create a new computer program with the same functionality as the “functionality of a computer program falls on the wrong side of the line drawn by Article 1(2) of the Software Directive.”¹⁸ In concluding that there was no infringement, the High Court noted that the principle established in *Navitaire Inc. v. easyJet Airline Company*¹⁹ that functionality is not protected by copyright is not confined to that which it is strictly necessary to reproduce. If however, the principle is so confined, WPL did not infringe as it did not reproduce a substantial part of the SAS source code;²⁰ and
- (d) it is not an infringement of the copyright in a manual describing the functions of a computer program to use the manual as a specification of the functions that are to be replicated and, to that extent, to reproduce the manual in the source code of the new program.²¹

As these conclusions relied on interpretations of the Software Directive and the Information Society Directive, the High Court did not consider these points to be *acte clair*²² and a reference to the ECJ would be required

to resolve the issues. The precise formulation of the questions to be referred to the ECJ is subject to a further hearing.

In addition to the preliminary conclusions summarized above, the High Court also held that that the uses by WPL of the SAS Learning Edition were outside of the scope of the licence granted by SAS;²³ however, the terms of the SAS Learning Edition were null and void to the extent that a user infringed SAS’s rights when observing, studying and testing the SAS Learning Edition in order to determine the principles and ideas which underlie any element of the program (acts which may be permitted by Article 5(3) of the EU Software Directive);²⁴ and that WPL had substantially reproduced the language of the SAS Manuals in its manuals and thereby infringed SAS’s copyright in the SAS Manuals.²⁵

III. Contrasting the Difference in Approach of the UK Courts and the German Courts

The standard aimed for within Europe is stated in Recitals 13 and 14 of the Software Directive:

“[13] Whereas, for the avoidance of doubt, it is to be made clear that only the expression of a computer program is protected and that ideas and principles which underlie any element of a program, including those which underlie its interfaces, are not protected by copyright under this Directive;

[14] Whereas, in accordance with this principle of copyright, to the extent that logic, algorithms and programming languages comprise ideas and principles those ideas and principles are not protected under this Directive.”²⁶

1. UK Approach

Prior to the introduction of the Software Directive, the UK courts decided to apply a traditional legal analysis of considering whether various different types of computer programs are protected as original literary works,²⁷ as English copyright law “cannot prevent the copying of a mere general idea but can protect the copying of a detailed “idea”. It is a question of degree where a good guide is the notion of “over-borrowing” of the skill, labour and judgement which went into the copyright work”.²⁸ This type of traditional legal analysis remains

exact interpretation of EU law which should be applied manifests itself with such clarity that it leaves no room for reasonable doubt (see *Srl CILFIT and Lanificio di Gavardo SpA v. Ministry of Health* (Case 283/81) [1982] ECR 3415).

23 [2010] EWHC 1829 (Ch) at paragraph 290.

24 [2010] EWHC 1829 (Ch) at paragraphs 291–314.

25 [2010] EWHC 1829 (Ch) at paragraph 319.

26 The Recitals quoted above are from the 1991 version of the Software Directive. The equivalent provisions are in Recitals 10 and 11 of the codified version (Directive 2009/24/EC on the legal protection of computer programs).

27 In early cases involving copyright for computer programs, UK courts looked to the US courts for guidance and adopted a form of “abstraction-filtration-comparison” test (see e.g. *Computer Associates v. Altai* 982 F 2d 693 (2nd Cir, 1992) and *Engineering Dynamics Inc v. Structural Software Inc* 26 F 3d 1335 (5th Cir, 1994)). when considering what “computer programs” are protected by copyright.(see e.g. *John Richardson Computers Limited v. Flanders* [1993] FSR 497). That approach was subsequently rejected by the UK courts in *Ibcos Computers Limited v. Barclays Mercantile Highland Finance Limited* [1994] FSR 275.

28 *Ibcos Computers Limited v. Barclays Mercantile Highland Finance Limited* [1994] FSR 275 at p 302.

14 [2004] All ER (D) 162 (Dec).

15 [2007] All ER (D) 234 (Mar).

16 [2010] EWHC 1829 (Ch) at paragraphs 209–218; 247.

17 [2010] EWHC 1829 (Ch) at paragraphs 219–227; 248.

18 [2010] EWHC 1829 (Ch) at paragraph 236.

19 [2004] All ER (D) 162 (Dec).

20 [2010] EWHC 1829 (Ch) at paragraphs 228–250.

21 [2010] EWHC 1829 (Ch) at paragraphs 255–256. Article 2 of the Information Society Directive provides that “member states shall provide for the exclusive right to authorise or prohibit direct or indirect, temporary or permanent reproduction by any means and in any form in whole or in part (a) for authors for their works ...” and the High Court considered the application of Article 2 of the Information Society Directive when assessing whether WPL had infringed SAS’s copyright in the SAS Manuals. The High Court held that the reproduction right in Article 2 of the Information Society Directive is to be interpreted in conformity with the Software Directive, Article 9(2) of TRIPS and Article 2 of the WIPO Copyright Treaty and accordingly, by parity of reasoning, it was not an infringement of the copyright in a manual to use the manual as a specification for the functions to be replicated.

22 The doctrine of *acte clair* means that a national court is of the view that the way in which EU law should be applied is without question, *ie* the

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the analysis used by the UK courts in cases involving copyright protection for computer programs since the introduction of the Software Directive, although the UK courts have also considered the wording and legislative history of the Software Directive when assessing the extent to which computer programs are entitled to copyright protection.

The UK courts have concluded²⁹ that copyright in computer programs does not extend to (i) programming languages; (ii) interfaces; or (iii) the functionality of a computer program.

According to the UK courts: (i) programming languages are not protected by copyright according to Recital (14) of the Software Directive;³⁰ (ii) interfaces are not protected by copyright as the same principle that applies to programming languages applies to ad hoc languages such as user command interfaces;³¹ and (iii) the functionality of a computer program is not protected by copyright as it is not, without more, an infringement of the copyright in a computer program to create another computer program which has the same functionality.³² In reaching those conclusions, the UK courts noted that *“if it is the policy of the Software Directive to exclude both computer languages and the underlying ideas of the interfaces from protection, then it should not be possible to circumvent these exclusions by seeking to identify some overall function or functions that it is the sole purpose of the interface to invoke and relying on those instead. As a matter of policy also, it seems to me that to permit the “business logic” of a program to attract protection through the literary copyright afforded to the program itself is an unjustifiable extension of copyright protection in a field where I am far from satisfied that it is appropriate.”*³³

2. German Approach

German copyright law includes preparatory design materials in the definition of a computer program. As a consequence of this approach, the copyright in a computer program can be infringed by copying of the preparatory design materials as well as by copying of the source code. Under the German law, therefore, the copying of the inner structure of a computer program or the specific compilation, selection and arrangement of its commands (*i.e.* its design) is generally regarded as infringing the copyright in a computer program.³⁴

Consequently, while the German courts have not yet had an opportunity to decide whether programming languages or interfaces are entitled to copyright protection, the majority of German legal literature tends to favour copyright protection for programming languages and interfaces to the extent those programming languages and interfaces are not mere ideas. The reasoning is that the specific implementation and allocation of the programming language and the interfaces is part of the preparatory design material as the programmer can freely choose the names and the selection of individual commands.³⁵ Thus, under German law when determining whether the copyright in a computer program has been infringed it is a question of degree whether an unprotected general idea or a protected work (being the computer program or its preparatory design material) is concerned.

The German courts have, however, also previously concluded that copyright in computer programs does not extend to the functionality of a computer program.³⁶ The copying of the functionality of a computer program has been regarded as the copying of a mere idea.³⁷

3. Consequences

Although courts in a number of other EU jurisdictions have considered questions similar to those raised in the SAS case, there is, as yet, no clear guidance on how to interpret the Software Directive and the Information Society Directive to determine what “computer programs” are protected by copyright.

IV. The German Case Law

To date, the German courts have not considered all of the issues raised before the UK courts. However, a number of recent cases have partially discussed the same or similar questions.

1. OLG Karlsruhe: No Infringement by Functional Reproduction

In the case of Higher Regional Court (Oberlandesgericht, OLG) of Karlsruhe, decision of 14 April 2010 (file-no. 6 U 46/09),³⁸ the claimant was the market leader for booking software for travel agencies. It claimed that a competitor, who had recently introduced its own booking software for travel agencies, had copied the graphical user interface (GUI), design, structure, functionality and workflow of its market leading booking engine and thus indirectly copied its software. Although, it was undisputed that the competitor’s software was written in a different programming language, the competitor’s software had a similar GUI, similar entry fields, functionality and identical return codes. The claimant sought injunctive relief to prevent the continued sale of the competitor’s software and requested that the court grant an

29 *Navitaire Inc. v. easyJet Airline Company* [2004] All ER (D) 162 (Dec) and *Nova Productions Limited v. Mazooma Games Limited* [2007] All ER (D) 234 (Mar).

30 *Navitaire Inc v. easyJet Airline Company* [2004] All ER (D) 262 (Dec) at paragraph 88. We note, however, that the judge did not consider that this conclusion was *acte clair* and recommended a reference to the ECJ.

31 *Ibid.* and [2010] EWHC 1829 (Ch) at paragraph 226 – 227. The interfaces considered by the UK court in *Navitaire Inc v. easyJet Airline Company* were different to the interfaces considered by the UK court in *SAS Inc v. World Programming Limited*. The interfaces in *Navitaire* were user interfaces (ie display screens and reports) and the interfaces in *SAS* were syntax and data file formats of the SAS Language.

32 [2010] EWHC 1829 (Ch) at paragraph 232.

33 *Navitaire Inc v. easyJet Airline Company* [2004] All ER (D) 162 (Dec) at paragraph 130.

34 See BGH, decision of 4 October 1990 – I ZR 139/89, CR 1991, at p. 80; BGH, decision of 14 July 1993 – I ZR 47/91, CR 1993, at p. 752; *Grützmacher* in Wandtke/Bullinger, UrhG, 3rd edition 2009, § 69a ref. 8, 25; *Dreier/Schulze/Dreier*, UrhG, 3rd edition 2008, § 69a ref. 21; Möhring/Nicolini/Hoeren, 2nd edition 2000, § 69a ref. 4.

35 See *Grützmacher* in Wandtke/Bullinger, UrhG, *l.c.*, § 69a ref. 30, 31; *Dreier/Schulze/Dreier, l.c.*, § 69a ref. 23, 24; *Schricker/Loewenheim, l.c.*, § 69a ref. 10, 13.

36 See OLG Karlsruhe, decision of 14 April 2010 – 6 U 46/09, GRUR-RR 2010, at p. 234; LG Köln, decision of 16 June 2009 – 33 O 374/08, CR 2010, at p. 59.

37 See LG Köln, decision of 16 June 2009 – 33 O 374/08, CR 2010, at p. 61.

38 GRUR-RR 2010, at p. 234.

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inspection³⁹ of the source code of the competitor's software in the sense of the Enforcement Directive.⁴⁰

The OLG Karlsruhe dismissed the claims, stating that the claimant had not shown sufficient similarities between its booking software and the GUIs and the design, structure, functionality and workflow of the competitor's computer program. The similarities did not amount to an infringement of the claimant's copyright in the computer program. Neither were they sufficient to prove the adequate degree of probability required for the court to order an inspection of the source code of the competitor's computer program. Therefore, the claimant failed in its application for an inspection claim as well as in its application for injunctive relief.⁴¹

2. LG Köln: Denial of Adequate Degree of Probability despite Obvious Similarities

In the case of the Regional Court (Landgericht, LG) of Köln, decision of 16 June 2009 (file-no. 33 O 374/08),⁴² the claimant was the operating company of a U.S.-based social network claiming that a German social network had directly copied parts of its HTML and PHP source code, the "look & feel" and the functionality of the claimant's website. The claimant further alleged that the founders of the German social network had acquired the information needed to build their clone by breaching the terms of use of the claimant's website. The claimant requested injunctive relief and an inspection of the PHP source code of the German social network.

The LG Köln held that there were indeed obvious similarities between the websites that indicated indirect copying of the claimant's software by the German social network as the German website had GUIs and functionality similar to those of the claimant's website. In addition, parts of the HTML code and the PHP file names used by the German website were identical to those of the claimant. Notwithstanding these similarities, the court ruled that such similarities were not sufficient to prove the adequate degree of probability of copyright infringement required for the court to order an inspection. According to the court, it was possible that the founders of the German social network simply programmed an identical website in German language by using the website of the U.S. original for reference purposes and by reviewing and analyzing the HTML code

and the functionality of the U.S. original. The actions of the German social network were not infringing, as HTML code is not regarded as software under the German law⁴³ and the copying of the functionality of the U.S. original was held to be the mere copying of an idea. The claim for injunctive relief was also dismissed for the same reasons.

3. Failure to Enforce Copyright Protection for Preparatory Design Material?

In both cases, the courts generally accepted – as is the prevailing opinion in Germany – that copyright protection may exist for computer programs where those computer programs were not created by direct source code copying, however, in dismissing the claimants' allegations, the courts demanded a very high level of detail regarding similarities between the computer programs or evidence of copying the source code before even considering whether the claimants' computer program had been copied by the competitors in breach of the claimants' copyright. This reasoning gives rise to the concern that generally accepted areas of copyright protection, *i.e.* the protection of the preparatory design materials of a computer program,⁴⁴ are in fact not being enforced by the courts in Germany. As a copyright owner appears obliged to obtain an inspection order to permit it to prove sufficient similarities between its computer program and the competitor's computer program, the German courts may, by exaggerating the requirements for an inspection claim, be factually excluding the claimant from alleging copyright infringement based solely on the preparatory design material for the computer program.

The German courts also considered whether the claimant could prevent the computer programs developed by the competitors from being marketed under German unfair competition law. The courts did not uphold these claims as a freedom to copy is deemed to exist where there is no copyright infringement; no misrepresentation of origin;⁴⁵ no exploitation or derogation of the value and/or reputation of the original⁴⁶ and no dishonest practices in obtaining knowledge about the claimant's computer program.⁴⁷

V. Potential Consequences

Similar to the conclusions of the UK courts, the judgments of the German courts in OLG Karlsruhe and LG Köln illustrate that the German courts do generally not regard the reproduction of a computer program with identical functionality as infringement of the copyright in the original computer program. In addition, the decision of the LG Köln court in particular shows that the

39 See BGH, decision of 2 May 2002 – I ZR 45/01, CR 2002, at p. 793; OLG Karlsruhe, decision of 14 April 2010 – 6 U 46/09, GRUR-RR 2010, at p. 238. A claim for inspection of a party's source code under § 101a UrhG provides that a copyright owner that suspecting infringement of its computer program can request from the alleged infringer certain information, including a copy of its source code, to permit an inspection of the allegedly infringing computer program if this is necessary for the copyright owner to prove an infringement. In the case of source code, which usually is a business secret of the alleged infringer, the inspection is typically not performed by the copyright owner but by a court-appointed expert. The court will only permit an inspection to take place if the claimant can show, to an adequate degree of probability, that its copyright has been infringed by the competitor.

40 Directive 2004/48/EC of 29 April 2004 on the enforcement of intellectual property rights.

41 We note that the facts of the OLG Karlsruhe case are similar to those in *Navitaire Inc v. easyJet Airline Company* [2004] All ER (D) 162 where the UK court held that there was no copyright infringement of Navitaire's airline booking system computer program. (The UK court considered that on the specific facts of the case certain user interface screens could be protected by artistic copyright. The OLG Karlsruhe also discussed a protection of the GUI according to § 2 para. 1 no. 7 UrhG, however denied a sufficient threshold of originality in the case at hand).

42 CR 2010, at p. 59.

43 HTML code does not qualify for a computer program under the German law but is regarded to be merely a sequence of commands. The computer program actually processing these commands and generating the website is the Internet browser only; see OLG Rostock, decision of 27 June 2007 – 2 W 12/07, CR 2007, at p. 737; OLG Frankfurt, decision of 22 March 2005 – 11 U 64/04, CR 2006, at p. 199; *Grützmacher in Wandtke/Bullinger, l.c.*, § 69a ref. 18.

44 See *e.g.* BGH, decision of 4 October 1990 – I ZR 139/89, CR 1991, at p. 80; BGH, decision of 14 July 1993 – I ZR 47/91, CR 1993, at p. 752; *Grützmacher in Wandtke/Bullinger, l.c.*, § 69a ref. 8, 25; *Dreier/Schulze/Dreier, l.c.*, § 69a ref. 21; *Schricker/Loewenbeim, l.c.*, § 69a ref. 5.

45 See § 4 no. 9 lit. a) of the German Act Against Unfair Practices (*Gesetz gegen den unlauteren Wettbewerb, UWG*).

46 See § 4 no. 9 lit. b) UWG.

47 See § 4 no. 9 lit. c) UWG.

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mere use of supporting materials or the outputs of the computer program – be they the respective website, HTML code or a user manual – in the course of the creation of a software clone is also not regarded to be infringing, unless direct source code copying can be proven.

Therefore, the view of the UK courts that the creation of a new computer program with the same functionality without copying the source code is not an infringement of copyright in a computer program finds support in the recent German case law. In addition, the conclusion of the UK courts that it is not an infringement to use a manual describing the functions of a computer program as a specification of the functions that are to be replicated and, to that extent, to reproduce the manual in the source code of the new program is also supported by the recent German case law.

However, there are differences of opinion between the UK courts and the views of German legal scholars and commentators on whether programming languages and interfaces are protected by copyright under the EU Software Directive (see III. above).

The reference to the ECJ in the SAS case will provide much needed clarity on the extent of copyright protection for computer programs. If the ECJ agrees with the previous conclusions of the UK courts, that could result

in greater competition in the software industry. On the other hand, if the conclusions of the UK courts are upheld by the ECJ, copyright owners are likely to seek new ways of protecting their computer programs, for example through claims similar to those that can be made under the German unfair competition act. However, it could also pose significant risks to the market shares of, and fees charged by, established software providers by opening the door for competitors to launch competing products emulating the functionality of existing software products.

The potential lifeline for software companies is that the UK and German courts have accepted that copyright protection: (a) is not limited to the text of the source code of a computer program; and (b) extends to protecting the design of the computer program (*i.e.*, its structure, sequence and organization) but that there is a distinction between protecting the design of a computer program and protecting its functionality.⁴⁸

⁴⁸ *SAS Institute, Inc. v. World Programming Limited* [2010] EWHC 1829 (Ch) at paragraph 232 where the High Court continued that “there is a distinction between protecting the design of the program and protecting its functionality. It is perfectly possible to create a computer program which replicates the functionality of an existing program, yet whose design is quite different.”

Martin Arthur Kuppers

Testing the Visibility of Copyright “Red Flags” for Internet Service Providers

**An analysis of the *Viacom v. YouTube* equation:
hear no evil + see no evil = do no evil**

The public internet, or World Wide Web, has evolved from a dire index a mere twenty years ago into the media and content rich environment we have so rapidly become accustomed to today. The internet has revolutionised the way we go about our daily business; it affects both the professional and personal aspects of our lives. It is thus not surprising that this medium has been exploited commercially, and naturally even less surprising that this exploitation has led to friction and sparked litigation. This is especially true when examining how this exploitation interacts with older business models and in particular, copyright.

*This article will focus on two forces creating such friction: The content creating entertainment industry and the content marketing Internet Service Provider industry (ISPs). In doing so, industry interests will briefly be delineated to provide the necessary backdrop for an in depth analysis of the District Court for the Southern District of New York’s decision of 23 June 2010 in *Viacom Int’l. Inc., et al., v. YouTube, Inc., et al.* (No. 07-CV-2103, No. 07-CV-3582, CRi 2010, p. 154, in this issue), the most recent major manifestation of the fric-*

tion between the two industries, which has important ramifications. Lastly, the points raised will be briefly summarised and reflected upon, providing a broader perspective.

I. The Opposing Interests

The service oriented commercial exploitation of the internet as a medium manifests itself in enterprises such as YouTube which:

“Create and market sophisticated services which enable individual members of the public to transmit, receive, record and reproduce sounds and signals in their own homes. The [content providing industry, such as Viacom,] transmits and records entertainment on an enormous scale. Each industry is dependent on the other. Without the public demand for entertainment, the [ISPs] would not be able to [market] their [services] to the public. ... Although the two industries are interdependent and flourish to their mutual satisfaction there is one area in which their interests conflict. It is in the interest of the [ISPs] to put on the market every facility which is likely to induce customers to [use the services provided] by the industry. It is in the interest of the entertainment

▷ Martin Arthur Kuppers, London. Further information about the author at p. 160