Tutorial 10 – Intellectual property and exam prep

1 IBCOS COMPUTERS Ltd v Barclays Mercantile Highland Finance Ltd [1994] FSR 275 Ibcos

This case concerned an issue of copyright violation alleging that the impugned program was identical to the original program as they were both developed and written by the same developer in spite of an undertaking taken by the developer not to design or sell similar software upon his resignation from the appellant's company.

Justice Jacobs outlined the stages for assessing breach of software copyright:

1. What are the work or works in which the claimant claims copyright?
2. Is each such work "original"?
3. Was there copying from that work?
4. If there was copying, has a "substantial part" of that work been reproduced?

Jacobs J said there was however, a real risk of making an error if the court adapted well-known principles which had been developed in the context of literary works addressed to humans, and applied them uncritically to literary works whose only purpose was to make a machine operate in a certain manner.

In this case the interrelationship of the originality of the work (the prerequisite for the subsistence of copyright) and substantiality of the part of the work copied (the prerequisite for infringement) was of considerable importance.

So far as English law was concerned the correct approach to substantiality was straightforward. It was the function of copyright to protect the relevant skill and labour expended by the author of the work. It followed that a copyist infringed if he appropriated a part of the work upon which a substantial part of the author's skill and labour had been expended

1. The judge pointed out that 's.3(1) of the Copyright Designs & Patents Act 1988, "*dramatic work*" includes a work of dance or mime. Further, s.3(2) provides that copyright does not subsist in a dramatic work unless and until it is recorded, in writing or otherwise s.3(1), literary work means "any work other than a dramatic or musical work, which is written, spoken or sung"' Separately case law provides that a film can be a dramatic work. Discuss whether a computer game can be a dramatic work and if so, what would be necessary to breach copyright.
   Yes it can be. It depends on the licence though. If it's public domain or creative commons it is not copyrighted. Games are both technical and creative products so IP is protected for both the code and the artwork and the dramatic game play.
2. If the defendants used, but did not copy the original programmer's design notes are they guilty of breach of copyright?
   Detailed design plans are protected as well, but it would only be a breach if the design was extensively copied.
3. What is meant by "idea" and "expression" in the judge's statement
   Distinguishing between ideas – that exist in the mind and imagination, and the expression of those ideas in a computer program/game through the coding/building of the game.
4. What evidence could an expert witness provide in a software copyright case?
   Evidence about structure of coding, style of coding, comments, whether two code bases are 'identical' in any way (likelihood of cut and paste).
5. What sort of evidence might convince you of copying from one program to another?
   Identical variable names, identical structure, spelling mistakes

6. A man sells AceCad, 3D modelling software worth £12,000, for £40 on eBay after breaking the software encryption code to make copies. Trading standards officials raided his home and found computer equipment and more than 300 disks containing the software.
    a. Is this a civil or criminal case? *Criminal – because commercial trading*
    b. Is it a defence to claim that the original software was overpriced? *No*
    c. Why does this offence matter? *It's theft and it stops legitimate company benefiting from their own work*
7. To what extent should people be allowed to copy from software (code, look and feel, design ideas, programming techniques)? Justify your answers.

2 Smartwatch scenario

A group of undergraduate software engineers, Team Wilson, have won a hackathon after they created a smartwatch application that supports children in making better eating choices.

A sophisticated algorithm is central to the application and the group have decided to seek a patent for it. A few friends and family suggest the group should release the smartwatch application as it would benefit a generation of children while they await recognition of the patent. Team Wilson decides to release the application for a fee and to use a software lock to ensure payment.

Team Strachey, another team from the hackathon, have criticised the actions of Team Wilson and state they are breaking the law and defaming the reputation of the profession. Team Strachey reverse engineer the smartphone application by looking at it's functionality, rewrite the algorithm, and release the source code under an open-source software licence. The open-source license stipulates the source code can be redistributed as along as Team Strachey members are credited. Team Wilson have advised the members of Team Strachey that by reverse engineering their solution they have illegally uncovered and shared valuable trade secrets and must stop distributing their source code.

a) What legal issues might potentially arise in this situation?

In the UK, you'd only get a patent for software code if it were a sort of embedded system, so this wouldn't be eligible for a patent. Anyhow, they've got it wrong because if they wanted to apply for a patent, they shouldn't have released the code first, because that disqualifies it. Copyright Designs & Patents Act 1988, Patents Act 2004.

There's nothing legally wrong with using a software lock to ensure payment, as long as it is explicitly mentioned in the licence contract. There is no defamation involved. TS haven't published or publicly stated defamatory comments about TW, they just disagree with them.

There's nothing wrong with reverse engineering an application by looking at how it works, 'ideas are free', so it looks like the re-engineering is fine, but it depends on how Team Strachey got hold of it. TS would also have to make sure they didn't copy the interface. If Team Wilson had released the software under a very restrictive proprietary licence, it would be illegal. Presuming the new software is entirely their own work, it's legal for TS to use a permissive OS licence.

b) Identify an ethical dilemma in this situation and discuss how it may be viewed using a consequentialist and a deontological approach.

Several ethical dilemmas. One e.g. – TS reengineering the work of TW and distributing it for free while not acknowledging the original work. Consequentialism might say this is ok, they did the rewriting themselves, and it has the potential to benefit many people. The fact that they annoyed and didn't acknowledge TW is detrimental, but on the whole, the outcome would probably be seen as good.

Deontologically, this would probably be seen as immoral. They are clearly going against the intentions of the originators and are treating them as a means to an end and not an end in themselves. There's nothing wrong with wanting to earn money for the work you do. The intention of the TW was good both in terms of the purpose of the software and their decision to get payment for their work.

c) What professional ethics issues should each team bear in mind when dealing with this situation and how could they have acted differently?

Here are some example answers:

1a Protect public interest – including health .... Well, both of them are trying to do that, although they have different approaches to it.

1d. Promote fair and equal access to the benefits of IT. This is an interesting one. Arguably, designing something like this solely for a smartwatch and charging for it is really only benefiting those who have more money. Maybe something TW could have done is to create a free online app with fewer features. That arguably would have stopped TS from doing what they did.

2d. Knowledge of legislation – none of them properly understood the legal issues. TW didn't understand patent or reengineering. TS didn't understand defamation

2e. Respect the views of others – TS should have had a conversation with TW, and TW should have listened. Between them, they could have come up with a better way forward

2f. TS actions damaged the likelihood of TW setting up a business

4a TS actions potentially bring the profession into disrepute as they're distributing someone else's work for free and not acknowledging their contribution. TW are over-reacting to TS by accusing them of doing something illegal.

4d. Act towards others with integrity and respect – both teams have fallen short on this.

d) What social issues arise for children and parents when using this type of health-related application and also looking for healthy eating advice on social media?

It depends on how the application works. Healthy eating is obviously very important, and apps like these can be helpful. Setting up good habits in childhood would be a good outcome for children using an app like this.

The downsides of this type of app are that on a smartwatch, the child is walking around with it on their arm. It's a mini-surveillance system. It can potentially encourage too much focus on eating and maybe even restricting eating in certain circumstances, so it could unintentionally cause harm. Also, children often don't have much choice about what they eat, that is mainly influenced by their parents and other influential adults. Arguably an app like this might be more useful if it were aimed at parents.