Level up your IP strategy: patentability of video games in the UK and Europe

Andrew White and Conor McGuinness, of Mathys & Squire, develop key insights into patenting video games with exploration of unsuccessful and successful case examples.

US video game publisher Electronic Arts has recently announced its agreement to purchase UK-based video game publisher Codemasters for approximately $1.2 billion.[1] This follows the recent acquisition of, for an undisclosed amount, Scottish video game developer Ruffian Games by another large US publisher, Rockstar Games.[2] UK-based companies are therefore clearly playing a leading role in video game development and publication.

The UK consumer market is of similar scale: its gaming market is currently the sixth biggest globally[3] with UK consumers spending an estimated £5.35 billion on game hardware and software.[4]

As the UK video game industry looks set to continue its growth, developing a bespoke intellectual property (IP) strategy tailored to your company is of the utmost importance. Obtaining suitable IP rights will provide you with the opportunity to 'fence off' your innovations from competitors and potentially lock-in your customers. IP rights can also significantly push up the value of your company.

In this article, we look at the patentability of video games in Europe and the UK and address the common misconception that they are not patentable. In addition to patents, other IP rights such as trademarks, copyright and confidential information are also all highly relevant to video game developers and publishers, and should be considered as part of any overarching IP strategy.

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Patenting video games in Europe

In essence, a modern video game is a piece of software describing a set of abstract game rules configured to be executed by hardware such as a PC or a games console. The European Patent Office (EPO) will grant patents to inventions that, it considers, provide a technical solution to technical problem, but does not recognise, among other things, programs for computers, playing games or mathematical methods, in and of themselves as inventions (Art. 52 (2),(3) EPC).

On the face of it, the ability to obtain patent protection for video/computer games, therefore, looks bleak.

However, the EPO will consider a computer program product an invention (and therefore,

potentially patentable) if, when it is run on a computer, it produces a further technical effect which goes beyond the 'normal' physical interactions between program (software) and computer (hardware) (see Headnote of T 1173/97).

So, when it comes to video games, although patents can't be sought for the rules of a game in and of themselves, there may be patentable subject-matter in the way the rules of the game are implemented, provided there is some technical effect which goes beyond the 'normal' physical interactions between program and computer.

Whilst it is not possible to give a precise statement as to what the EPO will consider an invention when it comes to video games, a few examples of the types of video game patent applications that the EPO has found patentable and non-patentable are set out below.

What isn't patentable?

In the case where an applicant appealed the refusal of their application claiming a method of operating an electronic video poker machine, the appeal was dismissed by the Board of Appeal because the Board found that the claimed method merely recited the rules of a new variant of poker and, therefore, related to the technical implementation of excluded matter in the form of game rules (see T 0336/07 – reasons 4.4).

Similarly, for a patent application directed towards a new variant of Tetris wherein the tetrominos rise in addition to 'fall', it was found that the claims related to games rules and there was nothing technical in how they were implemented (see T 1782/09 – reasons 4).

In addition to the game rules themselves that are not allowable, the exclusion appears to apply to in-game statistics and parameters too.

For example, an application claiming computer-implemented method for determining an indication of the relative skill of a first player and a second player based on the outcome of one or more games involving those players was found to be merely a mathematical method and not technical in nature. The applicant tried to argue the claimed method was technical because, in their opinion, it solved the technical problem of keeping players interested in the game by tracking their performance and then pitting them against a suitable opponent. However, the Board did not agree that keeping players interested was a technical problem (T 0042/10).

In another case, the applicant, Nintendo, was unable to patent a game where a kart is driven by two characters controlled by different

1 https://news.ea.com/press-releases/press-releases-details/2020/Electronic-Arts-Reaches-Agreement-for-Recommended-Acquisition-of-Codemasters-Group-Holdings-PLC/default.aspx

2 https://www.businesswire.com/news/home/20201014005253/en/Rockstar-Games-Acquires-Ruffian-Games

3 https://newzoo.com/insights/rankings/top-10-countries-by-game-revenues/

4 https://www.thecreativeindustries.co.uk/industries/games/games-facts-and-figures/uk-market-opportunity#:~:text=Gamer%20population%3A%20Approximately%2032.4m,video%20games%20in%20the%20UK.&text=2017%20was%20a%20record%20year,1.07%2C%20%2B7.8%20per%20cent

Résumés

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Andrew is a European and chartered UK patent attorney, with a has a master's degree and PhD in Physics. He manages international portfolios in the medtech, software, telecoms and automotive fields, in particular relating to electric vehicle technologies. Recently, he has developed his expertise in advising clients on the patentability of Computer Implemented Inventions (in fields such as bioinformatics, AI and blockchain inventions) and how to successfully navigate the patentability exceptions in these areas, both in Europe and abroad, to obtain patents of commercially valuable scope.

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> **A modern video game is a piece of software describing a set of abstract game rules configured to be executed by hardware such as a PC or a games console.**

players and the two characters could swap roles during the game which would affect the way the kart moves in response to a player input. Nintendo argued that swapping the roles of characters addresses the problem of making the game more surprising - and therefore exciting - for the players and that this was comparable to the generation of chance encounter events with less predictability as in T0012/08 (see below).

However, the Board was not convinced that this was a technical problem and asserted that virtual attributes of characters do not have a physical effect, they simply mean that different characters respond differently to user inputs when moving in the game space and, therefore, the claim related to game rules and was not patentable (T 0188/11).

What is patentable?

An application claiming a game wherein the probability of a character appearing on a game map was varied was, in contrast to the previous case, found to be patentable. The Board reasoned that the probability calculation was technical because it solved the problem of how to modify the game program such that it generated encounters in a less predictable manner (see T 0012/08).

In another patent application, it was found that a guide display device for use in a video game system was allowable subject-matter. In more detail, the guide display device highlighted a first character so that the player could identify them, as well as a pass guide mark, which allowed identification of a second character to whom a ball is to be passed. The pass guide mark continued to be displayed on the edge of the display area when the second character left the visible area. It was argued that the technical problem here related to conflicting technical requirements, namely: a portion of an image is desired to be displayed on a relatively large scale (e.g. zoom in); and, the display area of the screen may then be too small to show a complete zone of interest, which had to be considered in the inventive step discussion. The Board asserted that resolving the conflict by technical means implies a technical contribution (T 0928/03).

Lastly, in a case in which the applicant claimed a game wherein contact between a player character and background objects was calculated by determining whether an overlap existed between a set of points describing the player character and a block-shaped rendering area of the background objects, the Board found that this was a computationally effective and efficient approach to determining the contact between such objects and that this approach was not the inevitable result of programming the game rules *per se*. Rather, the claimed subject-matter was the direct technical consequence of the particular technical way selected data is used to determine a display state. (T 1225/10 – reasons 6.2.2).

Conclusion

From the above review, it is clear that video games, or at least aspects of these games, are patentable. Bearing in mind the size of the potential UK market, video game developers and publishers should be actively considering the patentability of their creations as part of a wider holistic IP review that also includes other IP rights such as trademarks, copyright and confidential information.

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