

ALLEN & OVERY



Virtual Reality

The expected future ubiquity of consumer virtual reality equipment and consequent legal and regulatory challenges

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In a nutshell

Virtual Reality (VR) is the term used to describe three-dimensional virtual environments that users can interact with and explore. A new generation of Virtual Reality headsets, essentially headsets with screens in front of each eye, promises to fundamentally change how we experience such virtual environments.

Data privacy

Compliance with **data privacy regulation** will likely be at the forefront. The use of VRE enables, even necessitates, the collection of personal data beyond what is normally captured when playing video games, or when watching video content. Aggregating such data with data from social media, or other sources, will further increase the level of detail with which an individual can be analysed. Such detailed collection of personal data presents interesting opportunities but will also increase the importance of legal compliance.

Patent disputes

Patent licensing and litigation may come to mirror the smartphone wars. VRE is a very fast-moving field of technology and there is important patenting activity in the field of VR. According to a report from 2015, the distribution of patents and patent applications is very fragmented, and includes notable holdings by non-practising entities. This provides fertile ground for patent licensing and litigation activity, especially once the VR equipment market has reached a certain level of maturity and size, similar to what has been the case with smartphones.

Trade secrets

Trade secret disputes can be expected to arise in such a nascent and technologically dense field, where developers move from one company to another. In particular, in relation to potential acquisitions, there is good reason to diligently review any potential trade secrets issues and the existence of any non-disclosure agreements.

Patentability

We expect to see evolving case law on the **patentability** of certain aspects of VRE. For instance, VR headsets require a completely new mode of user interaction. Patenting aspects of user interfaces is, however, a thorny subject, which will likely give rise to complex issues of patentability, the outcome of which may vary between jurisdictions.

Product liability and regulatory liability

Product and regulatory liability might be of concern to all stakeholders. There are already numerous examples of the accident-prone nature of the use of VRE. As there are many different actors involved, the manufacturer of the VR headset, the game developer, the platform or store owner, retailers, and potentially manufacturers of additional VR equipment, assigning liability might raise difficult issues of causality.

Content licensing

Current **content licensing agreements** may not always cover VR use. VR is effectively a new medium, and many current content licensing agreements likely lack explicit provisions on VR. Licensees of content that could be suitable also for VR might need to carefully assess whether the licence grant includes VR use, and if any modifications that may be necessary to adapt the content to VR use are allowed under the licence.

Medical devices

Some advertising claims could potentially increase the risk that a piece of VR equipment or software could constitute a **medical device** or an accessory thereto. Typically, VR headsets advertising a general use are not likely to be deemed per se to constitute medical devices. Nor are they likely to be regarded as accessories to medical devices in the form of software just because they are used as a general platform for such software unless they are (marketed as being) intended for use with such devices.

Reputational risks

Apart from the legal and regulatory implications of VRE, it is important to remember that many of the challenges described in here also entail **reputational risks**, and that such risks should be of common concern for all stakeholders, as one company's misstep may negatively affect the nascent VRE industry as a whole.

I. The rise of consumer virtual reality equipment

Virtual Reality equipment, most notably in the form of Virtual Reality headsets, has the potential to become the next big computing platform. In this article we explore some of the major legal and regulatory challenges that companies active in the Virtual Reality equipment field may face.

Virtual reality is the term used to describe three-dimensional, computer-generated environments that users can interact with and explore. Such virtual environments have traditionally been experienced on computer monitors or TVs, and interaction has been achieved typically by use of a keyboard and a mouse. Much has already been written about the legal implications of virtual environments, especially those that more closely replicate the real world, such as Second Life. In this article we focus instead on the potential legal and regulatory challenges relating to the use of VR headsets, sometimes called head-mounted displays, and other equipment designed to be used in conjunction with VR headsets (collectively “VR equipment” or “VRE”). Importantly, although VRE is promising to immerse us even further into virtual environments, VRE can also be used to experience content other than virtual video game environments where there is little or no interaction, such as live sporting events or movies. In the following, we use VR as meaning *any* content experienced through the use of VR headsets, including such content that might not be thought of as VR when experienced on a TV or a computer monitor. VR is distinct from Augmented Reality (“AR”) or Mixed Reality, which provides a live view of the real-world environment with computer-generated virtual objects imposed on such view. Google Glass and Microsoft’s HoloLens constitute AR equipment, and Pokémon Go, played on smartphones, is an explosively successful AR game. Although the focus of this article is on VRE, most challenges, except for those mentioned in section II.E below, are also likely to be relevant for AR.

Consumer VR technology has been around for quite some time, with Sega and Nintendo releasing VR products in the 1990’s. In fact, VR technology dates back to the mid-twentieth century. However, more recent technological advances have enabled very

advanced VR equipment, providing for a vastly improved experience in comparison to previous consumer VR efforts.

“Goldman Sachs has estimated that the combined VR/AR market will be worth USD 80 billion by 2025.”

Although this new generation of VRE is still young, a lot has happened in the last few years alone. Oculus VR, the company founded by Palmer Luckey and acquired by Facebook in 2014 for USD 2 billion, released its consumer version of the VR headset, Oculus Rift, earlier this year. The release was preceded by the release of the Gear VR mobile headset, which was jointly developed by Samsung and Oculus VR, and was closely followed by mobile phone maker HTC launching the VR headset HTC Vive in collaboration with game developer, Valve Corporation. Google released the low-cost Google Cardboard in 2014, and around the same time invested USD 542 million in the Augmented Reality (or Mixed Reality) start up Magic Leap. Google has recently announced Daydream, a mobile VR headset to be released in November 2016. On October 13, 2016 Sony released a VR headset for the PlayStation 4 gaming console, targeting its massive user base of over 43 million consoles. Numerous other prominent tech companies are investing in VRE. Although many big players in the video game industry have been rather cautious thus far, there are certainly quite extensive efforts in this field, and in addition to VR headsets, a host of other VR equipment promising improved immersion is under development. For instance, there are already big-scale VR experiences such as VRE-enhanced roller coasters.

As it is only a few months since Oculus/Facebook, Samsung and HTC released their respective VR headsets, the market is still in an early phase. However, it is expected that sales will increase sharply at Christmas 2016, in particular with the release of Sony's VR headset, with an expected minimum of six million devices being shipped before the end of 2016. Looking further into the future, Goldman Sachs has estimated that the combined VR/AR market, including related software, will be worth USD 80 billion by 2025 (alternative scenarios put the estimate between USD 23 billion and USD 182 billion) and that VRE will drive 75 per cent of use cases. Another estimate puts the market at USD 162 billion by 2020.

VRE has the potential to reshape completely the existing ways of experiencing content. It is different from any previous medium as, unlike TVs or other screens, it closely reproduces how we experience the real world (primarily visually and aurally, but other accessories promise to engage our senses of touch and even smell). VRE opens up astounding possibilities for a great number of sectors in addition to video games: friends could sit next to each other watching a football game or an e-sports competition without actually being at the event (potentially disrupting live ticket sales and changing how and where future stadiums are built), real estate agents could offer virtual tours of properties, or patients could consult with their doctors from home. For the engineering industry, VRE could also be a huge cost-saver obviating the need to build physically expensive prototypes, and the internet retail industry might offer shopping experiences that equal real-world ones. Indeed, there are numerous other potential uses, some of which have been developed and are already available.

“VRE has the potential to reshape completely the existing ways of experiencing content.”

The aim of this article is to identify potential legal and regulatory challenges that are *directly* related to the use of VR equipment and to the content enabled by the use of VR equipment. Hence, this article will not address legal issues that are equally relevant in relation to content experienced without VR equipment, such as “virtual” infringement of IP or infringement of “virtual IP”, liability for user generated content, property rights in virtual property and taxation of income in virtual worlds, as these have already been addressed in other articles. However, potential challenges relating to copyright infringement in the VR context deserve a mention nonetheless. One promising application of VRE is bringing people together to watch content in a VR environment. Notably there are already applications allowing a user to create a virtual cinema, to which friends can be invited to watch a non-VR film together, much like you would in real life. Assuming that the film displayed is a lawful copy, would this constitute a communication to a new public, or would it be deemed akin to inviting people over to watch a film in real life? If it is deemed to be an unlawful communication to the public, or if the film displayed is an illegal copy, complicated issues on who can be held liable for the infringement may arise: the uploading user, the other spectators and/or the platform provider?



II. Legal and regulatory challenges related to VRE

A. DATA PRIVACY

The use of VR technology has the potential to enable, and to some extent necessitates, the collection of more personal data beyond what is normally captured when playing video games or when watching video content. For instance, VR equipment may analyse the user's height, the characteristics of the space surrounding the user, as well as how the user moves and interacts with the virtual reality. VRE can also capture with greater precision where the user is looking and for how long. With additional accessories we might see additional data captured, such as facial expressions. We might further see a convergence with fitness accessories, measuring health data, particularly since VRE might itself be used as a fitness accessory. Sensitive health data may be captured if VRE is used as a healthcare tool. As an analogy, one of the biggest concerns raised when piloting Google Glass in hospitals was compliance with healthcare and privacy regulations. With all this data, it will become increasingly easy to identify exactly who is playing a certain game or watching a live event. The more advanced the technology, the more personal data is likely to be captured. Although the main purpose of capturing such data is to enhance the user experience, such data, potentially aggregated with data from social media or other sources, will further increase the level of

detail with which an individual can be analysed. Many privacy policy allow the use of data for advertising purposes, and the detailed data on how you interact with a virtual world, how long you look at a certain object, and your facial expression when doing so, could effectively be used for product placement purposes, for example.

The increasing volume of personal data collected and the multiplicity of purposes for which it may be used will increase the importance of legal compliance and may also give rise to publicity issues. Indeed, many people have already voiced concerns about data protection matters and it is likely that many privacy policies will be scrutinised and debated by users.

Compliance is set to become markedly more important for companies falling under the purview of EU data protection legislation. The General Data Protection Regulation (Regulation (EU) 2016/679), which will be applied starting from 25 May 2018, notably increases the burden of data controllers while providing for much stricter sanctions for non-compliance than before: failure to comply could attract a fine of up to the greater of EUR 20 million and four per cent of annual worldwide turnover.



B. PATENTS AND TRADE SECRETS

VR equipment necessitates advanced movement tracking technology, as well as high-resolution, low-latency displays. Imposed on the displays are lenses which create the impression of the displays being further away than they actually are. There may also be other sensors measuring additional metrics – all housed in a headset that must be comfortable and safe to wear over prolonged periods of time. Controllers and other accessories that enable interaction with the virtual content face several as yet unsolved technical challenges; one of the major challenges is how to move within large virtual worlds in spite of the constraints of the real, physical space the user is in. All this hardware must be supported by complex software interpreting the input in a way that enables the illusion of moving within and interacting with the virtual reality. The interface used to interact with the virtual reality is seen as the key to success in the field. In summary, VRE is a very complex field of technology, requiring great creativity and invention.

“The distribution of patents and patent applications is very fragmented.”

For this reason, there is important patenting activity in the field of VR. According to a report from 2015, the distribution of patents and patent applications is very fragmented, and includes notable holdings by non-practising entities (“NPEs”). Many of the patents and patent applications cover aspects relating to 3D modelling, data processing, display devices, image data processing, and interface arrangements.

This provides fertile ground for patent licensing and litigation activity, at least once the VR equipment market has reached a certain level of maturity and size, similar to what has been the case with smartphones. Indeed, the similarities are striking: VRE is another paradigm-shifting technology (potentially), which relies partly on the same technologies used in smartphones. This is illustrated by the partnership between Oculus and Samsung to develop the Samsung Gear VR, a

mobile VR headset that relies on Samsung smartphones to provide the display and processing power needed. The partnership is reported to provide Samsung with access to the advanced Oculus software, while providing Oculus with a partner with important supply chain know-how that can help build a foundation for VRE. As mentioned above, many other companies active in the smartphone field also hold VR-related patents or are, or are rumoured to be, active in the VR or AR fields, including HTC, Apple, Google, Microsoft, LG, and Nokia.

“In relation to potential acquisitions, there is good reason to review diligently any potential trade secret issues and the existence of any non-disclosure agreements.”

An important difference between VRE and smartphones however, is the current lack of standardisation for VRE-specific technologies, including the lack of an equivalent to Standard-Essential Patents (“SEPs”), in relation to which the patentee has undertaken to license the technology on fair, reasonable and non-discriminatory terms. Apart from creating potential compatibility issues, this lack of standardisation may serve to increase litigation activity. On the other hand, SEPs have occasionally been the object of notable infringement actions and VRE might also be the subject of such litigation to the extent standardised technology (such as Wi-Fi or Bluetooth connectivity) is implemented in VRE, e.g. to enable communications with smartphones, smartwatches or other wearables.

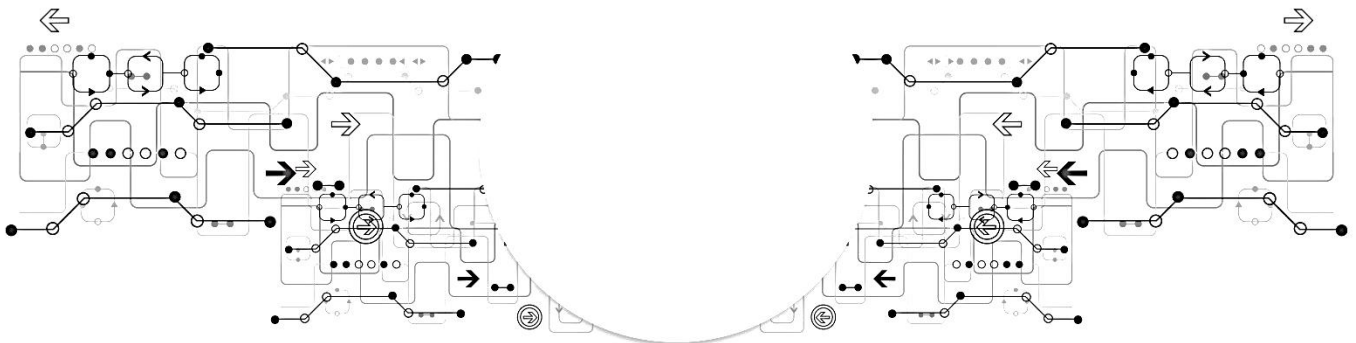
Similarly, trade secret disputes can be expected to arise in such a nascent and technologically dense field, where developers move from one company to another. In particular, in relation to potential acquisitions, there is good reason to review diligently any potential trade secret issues and the existence of any non-disclosure agreements. Total Recall, the former employer of Palmer Luckey, has sued Luckey for violating a non-disclosure

agreement that he allegedly signed while working for the company in 2011. Further, ZeniMax is also pursuing legal action, claiming that under a binding non-disclosure agreement, ZeniMax provided Oculus VR and Luckey with access to intellectual property developed by ZeniMax, and that such intellectual property was subsequently wrongfully exploited. In an amended claim filed in May 2016, ZeniMax alleges that “Carmack was given a copy of the prototype by Luckey, and Carmack and other ZeniMax personnel added numerous improvements to the prototype. Together, those ZeniMax employees literally transformed the Rift by adding physical hardware components and developing specialized software for its operation.” ZeniMax also claims that “Carmack secretly and illegally copied thousands of documents containing ZeniMax’s intellectual property from his computer at ZeniMax”. Oculus has publicly refuted the merit of ZeniMax’s claims. It appears as if the suit is currently

proceeding towards a trial in early 2017, unless the case is first resolved by settlement or by summary judgment.

“Patenting aspects of user interfaces is a thorny subject, which will likely give rise to complex issues of patentability.”

Finally, we expect to see evolving case law on the patentability of certain aspects of VRE. For instance, VR headsets require a completely new mode of user interaction. Patenting aspects of user interfaces is, however, a thorny subject, which will likely give rise to complex issues of patentability, the outcome of which may vary between jurisdictions. As well as user interfaces, other aspects of VR technology are likely to cause discussion on the issue of patentability of software inventions, and bearing in mind the long history of VR, there might exist unknown prior art affecting patentability, as well as increasing the risk of NPE activity.



C. EXCLUSIVITY AND TECHNOLOGICAL PROTECTION MEASURES

Because good VR content is key to the success of VRE, VRE manufacturers have an incentive to invest in, or otherwise contribute financially to, the creation of such content. Releasing exclusive titles, which has long been done in relation to gaming consoles, presents one way in which a manufacturer can recoup some of the investments made, while simultaneously enabling differentiation from competing devices. In practice, exclusivity can result from content being compatible only with certain hardware, e.g. because the content requires certain technical functions specific to a piece of VRE, or because the game has only been developed for a specific platform, but exclusivity can also be achieved by implementing technological protection measures (“TPMs”) effectively hindering playback of the content with other VRE. For gaming consoles, TPMs are commonly used to prevent pirated games from being played.

Before implementing TPMs however, certain legal aspects must be considered. To enjoy protection against circumvention, a TPM must be shown to respect the principle of proportionality, and must not prohibit devices or activities that have a commercially significant purpose or use other than to circumvent the technical

protection. In addition, a TPM must be suitable for achieving that objective and must not go beyond what is necessary for this purpose. So far several courts including those in the UK, in Sweden, and more recently in Italy, have ruled in favour of the platform owners. In particular, the court in Italy, following a ruling by the ECJ, put a considerable burden of proof on the manufacturer of the circumvention device.

Highly anticipated exclusives, such as Electronic Arts’ future release of Star Wars Battlefront VR mission for PlayStation VR, may further put the spotlight on compatibility, exclusivity and TPMs. In addition to questions of compatibility between content and hardware, compatibility between VRE and other hardware may add another layer of complexity to these issues.

Apart from the legal aspects, the potential consumer reactions should also be taken into account before implementing a TPM, in particular in relation to PC-compatible VRE. There have already been consumer reactions against the implementation of TPMs in VR headsets, and the issue of compatibility and exclusive titles is frequently discussed.



D. PRODUCT LIABILITY AND REGULATORY LIABILITY

The use of VRE necessitates the complete or partial occlusion of the user's vision of the real world. In some VR games, the user moves around within a predefined space, in most cases tethered to a computer by a cable. Because of the immersive nature of the experience offered, there is a risk that a user can forget the real world limitations and as a result walk or even run into walls, trip on the cable or other objects, or try to support him or herself on a virtual object with no real world equivalent. With the HTC Vive such risks have been mitigated by implementing the Chaperone system, which shows a grid whenever the user is close to the bounds of the predefined play area; Oculus is developing something similar. The use of VRE may also provoke very real and physical sensations such as vertigo; a user may very well respond to standing on a virtual ledge in much the same way as he or she would have done in the real world. There are already numerous examples of the accident-prone nature of the use of VRE. We would expect the risk of accidents to be mitigated by both the continuous efforts of the platform providers/game developers, and by users gaining more experience of the safe use of VRE. Nonetheless, as with most human activity, it is impossible to eliminate all risks completely.

“Accidents resulting from use of VRE will give rise to issues of product liability, perhaps primarily for VRE manufacturers.”

Accidents resulting from use of VRE will give rise to issues of product liability, perhaps primarily for VRE manufacturers. To limit the risks of accidents and the potential liability if an accident nonetheless does occur, developers should ensure that there are warnings for all foreseeable dangers, and that all warning labels are detailed, specific, prominent and understandable. The duty to warn may be greater for VRE because its relative novelty may result in a lower degree of user awareness of the relevant dangers than is otherwise the case. Further, in a case before the Hawaii district court in which the plaintiff sought damages for not having been warned about the addictive nature of a (non-VR) video game, a stark reminder was given that it may not be

possible to rely solely on limitation of liability provisions.

Apart from VRE manufacturers, software developers need to consider product liability risks in developing content adapted to VRE. Users may be so immersed that they try to interact with virtual objects, trying to sit down on virtual chairs or trying to use a virtual object for support.

“To limit the risks developers should ensure that there are warnings for all foreseeable dangers, and that all warning labels are detailed, specific, prominent and understandable.”

In addition to the risk of accidents, there is inevitably a lack of data on any long-term effects of the use of VRE and concerns on, e.g. the effect on the development of vision in children, have been raised. Oculus VR advises against use by children under 13, although 13 was chosen because it is the minimum age for Facebook use.

The psychological impact of using VRE may also prove to be fertile ground for debate or even litigation. The added realism, in particular if and when we start seeing controllers in the shape of guns, is likely to stoke the debate about the potential of games to induce violent acts in the real world. In addition, the flip side of the marketing of VRE as an educational tool might be that the skill set acquired, e.g. when using weapons in VRE games, might be much more readily translatable into the real world than when playing non-VR games. We predict that there will be forceful calls for stricter content regulations, and that unless we see satisfactory self-regulation or expedient action by legislators, the debate on the potential harmful effects of using VRE, irrespective of whether we will see any scientific evidence of such effects, might become one of the biggest impediments to VRE's success. PEGI, the organisation responsible for the voluntary age rating system in Europe, has already admitted that it may be necessary to implement new ratings for VR

games and, in the US, calls have been made to implement a mandatory system to replace the current self-regulatory regime.

Finally, the very serious issue of cyber bullying, in relation to which social media platforms, legislators and law enforcement, as well as society at large, have seemed unable to respond effectively, might become even more acute if it moves into a VR space, where the added realism may make the impact much more forceful.

Without an effective cooperation between all stakeholders, these issues might come to overshadow the amazing possibilities provided by VR equipment. While not allaying such fears, it has however been suggested that VRE could help the perpetrators of cyber bullying to see and understand more clearly the consequences of their actions, and potentially make them feel less anonymous, thus fostering a greater sense of accountability, if both their victims and themselves have virtual bodies, perhaps reflecting the posture and facial expressions of their actual selves.

Already, under current regulations, there are some requirements to monitor user activity, and/or to act on becoming aware of illegal activity, and if the problems with cyber bullying become even more acute with the emergence of VRE, we will likely see calls for stricter regulation. At the same time, monitoring may become ever more difficult as the problematic communications may, to a higher degree than is currently the case, be verbal or based on gestures, rather than written.

As there are many different actors involved – the manufacturer of the VR headset, the game developer, the platform or store owner, retailers, and potentially manufacturers of additional VR equipment – assigning liability might raise difficult issues of causality. Irrespective of whether we will see cases assigning collective or shared legal liability or if product liability cases will be rare or difficult to prove, there should be a mutual interest in avoiding a negative public perception of VRE, partially or on the whole.



E. CONTENT LICENSING

VR is effectively a new medium, and many current content licensing agreements likely lack explicit provisions on VR. Licensees of content that could also be suitable for VR should carefully assess whether the licence grant includes VR use, and if modifications required to adapt the content to VR use are allowed under the licence.

For film and TV content agreements, in particular agreements where all content released during a certain window is licensed, or where there are life-of-series commitments, the question may arise if VR content released by a studio is caught under the agreement and what happens if a TV series under a life-of-series obligation starts being released in VR, solely or as an alternative to a non-VR version.

As VRE has great potential for live events, the question may arise whether a broadcaster has been granted the rights to capture and broadcast the event also in VR, and/or whether there are exclusivity or holdback clauses barring the rights holder to license such rights to a third

party. Rights holders and broadcasters should address the issue of VR in any future agreements, even where there are no current plans to exploit VR.

“Rights holders and broadcasters should address the issue of VR in any future agreements, even where there are no current plans to exploit VR.”

From a commercial perspective, while VR broadcasts may create additional revenue pools, rights holders may also want to consider whether VR broadcasts risk cannibalising live ticket sales, which might be the case if a courtside VR experience is considered preferable to at least some of the less attractive stadium seats. Whereas we have yet to see widespread use of VR for live sports, possibly because rights issues have yet to be worked out, there have been some tentative efforts.



F. ADVERTISING AND REGULATION OF MEDICAL DEVICES

VRE is already used in healthcare and shows great promise. However, before making any claims on the benefits of VRE, such claims must be supported by data to the extent required by any applicable regulatory regimes.

Further, some claims could potentially increase the risk that a piece of VR equipment or software could constitute a medical device or an accessory thereto, the effect of which will vary between jurisdictions, but which could potentially impact the launch date if not anticipated. The nature of any medical data collected by a piece of VRE or VR software may also impact the assessment of whether these could constitute a medical device or an accessory thereto. Undoubtedly, software that makes use of the various sensors in VRE for the diagnosis or treatment of specific diseases may constitute medical devices. The U.S. Food and Drug Administration (the “FDA”) has issued guidance in relation to mobile apps, from which some analogies may be tentatively drawn. Interestingly, a large category of apps, including those that use video games to motivate patients to do their physical therapy at home, are said potentially to meet the definition of a medical device, but in relation to which the FDA intends to exercise enforcement discretion on a case by case basis. The FDA has stated that it does not intend to enforce compliance with its regulatory requirement for “minimal risks” apps, defined as apps that are only intended for one or more of a predefined list of lower-risk uses, including apps that help users to self-manage their diseases or conditions, without providing specific treatment suggestions.

Typically, VR headsets and similar VRE having a general use will likely not be deemed per se to constitute medical devices. Nor are they likely to be regarded as

accessories to medical devices in the form of software just because they are used as a general platform for such software unless they are (marketed as being) intended for use with such software.

“VR headsets and similar VRE having a general use will likely not be deemed per se to constitute medical devices.”

In addition to any health-related aspects, the promotion of VRE entails several challenges to be resolved, since it is difficult to accurately capture or describe the VR experience in any medium other than VR itself. Thus, care is needed when trying to portray VR experiences in traditional media such as flat screens, so that the consumer is not misled, e.g. in relation to the resolution or the field of view of the VR headsets, or to the limitations in interacting with VR games such as those that come from being tethered or from other physical constraints of the real world.

Hence, although the new generation of VRE is certainly an amazing technology, the inevitably subjective choices in how to communicate this to the market must be carefully weighed so as to convey an accurate depiction of current capabilities and limitations.



G. REPUTATIONAL RISKS

Apart from the legal and regulatory implications of VRE, it is important to remember that many of the challenges described in this article also entail reputational risks, and that such risks should be of common concern for all stakeholders, as one company's misstep may negatively affect the nascent VRE industry as a whole. The early adopters of VRE have shown themselves to be very active users of social media – a medium notoriously difficult to manage. Further, it is our perception that many early adopters feel very

invested in the products, which is readily understandable in relation to crowd-funded products, and although this is primarily a good thing in helping to generate public interest, it can sometimes lead to surprisingly severe backlashes from (perceived) missteps. Talking to industry insiders, there is much concern over social media, and notably reddit. While there is often an expectation of interaction with the companies, such interaction must be made with great care, as perceived slights are quickly picked up and widely discussed.

III. Concluding words

Inevitably, we can only speculate on what the most pressing legal and regulatory challenges will be, and we may only know the answer when VRE has been widely adopted for the various purposes described above. Certainly, it will be fascinating to monitor the development of VRE. Whether the legal and regulatory challenges above will predominate or whether other

challenges will surface, the field of VRE is poised to become a hive of legal activity over the next few years. All stakeholders should therefore monitor and analyse how these challenges may impact their businesses and, considering the potentially endless possibilities offered by this medium, even if you are not a stakeholder today, chances are that you soon will be.



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