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THE LOCALIZATION OF IP INFRINGEMENTS IN THE ONLINE ENVIRONMENT:
FROM WEB 2.0 TO WEB 3.0 AND THE METAVERSE –
EXECUTIVE SUMMARY

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ABSTRACT

This study examines how to localize intellectual property (IP) infringements in Web 3.0 contexts and the Metaverse. In a first step, it reviews the criteria that have been developed in various legal orders to determine where an alleged IP infringement has been committed in Web 2.0 contexts (both in relation to applicable law and jurisdiction). Based on this analysis, the study seeks to answer the following questions: Can the same criteria find application in the context of IPR infringements carried out through and within Web 3.0 contexts and the metaverses? Does the distinction between centralized and decentralized metaverses have substantial implications insofar as the localization of IPR infringements is concerned?

EXECUTIVE SUMMARY

1. Over time, technological advancements have resulted in novel ways both to exploit content and to infringe rights – including intellectual property rights (IPRs) – vesting in them. Legislative instruments have consistently clarified that pre-existing rights continue to apply to new media, i.e., means to disseminate intangible assets, including in digital and online contexts. In terms of rights enforcement, however, the progressive dematerialization of content and

* The views expressed in this document are those of the author and not necessarily those of the Secretariat or of the Member States of WIPO.
dissemination modalities has given rise to challenges, including when it comes to determining where an alleged IPR infringement has been committed.

2. The importance of such an exercise cannot be overstated: it is inter alia key to determining (i) whether the right at issue (e.g., a registered IPR) is enforceable at the outset, (ii) which law applies to the dispute at hand, as well as – in accordance with certain jurisdictional criteria – (iii) which courts are competent to adjudicate it. For example, determining that the relevant infringement has been committed in country A serves in turn to determine: (i) if the right at issue is enforceable at all, given that IPRs are territorial in nature (so if the IPR in question is a national trademark, the infringement needs to be localized in the territory of the country where the right is registered); (ii) whether, e.g., country A’s law is applicable to the dispute at hand; and (iii) if, e.g., the courts in country A have jurisdiction to adjudicate the resulting dispute.

3. This said, questions of applicable law and jurisdiction should not be conflated. Answering the former serves to ensure that a court does not have to apply more than one law, but rather only focus on the initial act of infringement to identify the law applicable to the proceedings. Vice versa, such a need to ensure that only one law is applicable does not exist in the context of jurisdiction rules, which frequently provide for more than one forum.

4. The localization exercise described above has proved to be particularly challenging when the infringing activity is committed in a digital or online context. For infringements occurring in Web 2.0 situations, courts around the world have nevertheless progressively developed various approaches to localize the infringing activity, by considering the place where (a) the defendant initiated the infringing conduct (causal event criterion), (b) the infringing content may be accessed (accessibility criterion), and (c) the infringing conduct is targeted (targeting criterion). While none of these criteria is devoid of shortcomings, targeting has progressively gained traction in several jurisdictions around the world. Proof of targeting depends on a variety of factors, including language, currency, possibility of ordering products or services, relevant top-level domain, customer service, availability of an app in a national app store, etc. Overall, what is required to establish targeting is a substantial connection with a given territory.

5. Another development is currently underway: it is the transition from the already interactive dimension of Web 2.0 to the even better integrated and more immersive reality of Web 3.0 (if not already Web 4.0!). It is expected that such a transition will be made possible by the rise of augmented reality, blockchain, cryptocurrencies, artificial intelligence and non-fungible tokens (NFTs) for digital assets. In this sense, the progressive evolution of the metaverse will be pivotal. Even though the concept of metaverse has existed for over thirty years, it has recently been revamped. Thanks to the advent of the new technologies just mentioned, it is hoped that the “new” metaverse will be characterized by four main features: interoperability across networked platforms; immersive, three-dimensional user experience; real-time network access; and the spanning of the physical and virtual worlds. In all this, different metaverses have been developed already, which fall into two main categories: centralized and decentralized. The distinction is drawn based on whether the metaverse at issue is owned and ruled by a single entity, e.g., a company, or whether it is instead characterized by a dispersed network and decentralized ownership structure, e.g., a decentralized autonomous organization (DAO).

6. While, as stated, it appears reasonable to consider the treatment of Web 2.0 situations as reasonably settled, the transition from Web 2.0 to Web 3.0 has the potential to pose new challenges to the interpretation and application of the criteria discussed above. The present study is concerned precisely with the legal treatment of such a transition. Specifically, this study seeks to answer the following questions: Can the same criteria and notions developed in relation to other dissemination media find application in the context of IPR infringements carried out through and within the metaverses? Does the distinction between centralized and
decentralized metaverses have substantial implications insofar as the localization of IPR infringements is concerned?

7. The IPRs considered are copyright, trademarks and designs. The analysis is limited to infringements committed outside of contractual relations and adopts an international and comparative perspective, without focusing on any specific jurisdiction. While examples from different legal systems are provided and reviewed as appropriate, by choosing such an approach it is hoped that a lens is offered through which the main questions at the heart of the present study may be answered in terms that are as broad and helpful as possible to different legal systems. Also of relevance to the question of enforceability of IPRs online and on the metaverse is the consideration of the subjects against whom claims may be brought and their legal basis: in this sense, the alleged IPR infringement that requires localizing may not only trigger direct/primary liability but also the liability of subjects other than the direct infringer, including information society service providers (ISSPs), also known as internet service providers (ISPs), whose services are used to infringe.

8. The study is structured as follows. Sections I and II detail the background to the present analysis, as well as its relevant objectives and approach. Section III addresses conflict of laws issues. It reviews the relevant framework for the localization of IPR infringements in cross-border situations, having regard to international and regional instruments, as well as selected national experiences. This section further draws a distinction between unregistered and registered IPRs. Section IV focuses specifically on digital and online situations and reviews academic and judicial discourse on localization approaches for the purpose of determining applicable law and, where relevant, jurisdiction. A discussion of the criteria based on causal event, targeting and accessibility – including their shortcomings – is also undertaken. Section subsequently considers different types of subjects against whom infringement claims may be advanced, available remedies, and the type of resulting liability. Section VI is specifically concerned with the different kinds of metaverse and determines whether the findings of the preceding sections may find satisfactory application in relation to this new medium, at least in principle.

9. Insofar as the main questions presented above are concerned, the one asking whether the same criteria and notions developed in relation to other media may find application in the context of IPR infringements carried out through and within the metaverses is answered in the affirmative. It is further submitted that the distinction between centralized and decentralized metaverses – while of substantial relevance to the determination of enforcement options – may not have significant implications insofar as the localization of IPR infringements is concerned. The main finding (Section VII) is thus that existing principles and rules have proved to be sufficiently adaptable over time to address and be applied to new and emerging exploitation and infringement modalities. This leads to conclude that the same is likely to prove true – at least in general terms – having regard to Web 3.0 situations and the metaverse.

10. That said, infringing activities carried out on the metaverse have the potential to raise specific challenges in terms of localization of the relevant IPR infringement, at least at an evidentiary level. Not only do Web 3.0 and the metaverse have the potential to make the identification and localization of direct infringers more complex, but the very attributability of infringing conduct may raise significant questions. Nevertheless, such challenges are not entirely unprecedented: if we take the position of ISSPs, the progressive evolution of business models has been accompanied by an evolution of the type of liability that could be attributed to, e.g., operators of hosting platforms – whether in relation to copyright or trademark infringements carried out by users/sellers or the availability for sale of NFTs. The same has occurred with regard to the types of injunctions available against “innocent” intermediaries. Another point of reflection is the interplay between state-mandated and private enforcement of IPRs. If the “new” metaverse becomes a fully integrated reality, the question of whether and to what extent private
companies may enforce their own terms of use has the potential to become even more relevant and pressing than it has been so far.

11. Decentralized contexts give rise to specific challenges too, but once again not entirely unprecedented. The applicability of IPRs and the localization of relevant infringements has already come before courts in relation to peer-to-peer file-sharing situations in several jurisdictions around the world. As such, the questions of interpretation that decentralized metaverses pose may not be entirely novel. That said, a greater reflection regarding the legal nature of DAOs and the type of liability that can be attributed to their members in relation to infringing conduct undertaken by others within the organization appears warranted.

12. On a broader policy and legislative level, the progressive advancement of digital and Internet-based technologies has resulted in the persisting, fundamental contradiction between the borderless nature of online dissemination modalities and the territoriality of IPRs. It is unlikely that the advent of Web 3.0 and the “new” metaverse will change this. In all this, a key question remains: should a more even and better integrated level playing field for the exercise and enforcement of IPRs be guaranteed, also considering that – specifically regarding enforcement tools – the level of harmonization at the international and, where available, regional levels is mostly based on a de minimis approach? That – it is submitted – is a key issue. The transition from Web 2.0 to Web 3.0 and the realization of a fully integrated metaverse have made such a question one the answer to which could and should not be delayed much longer.