

## ABSTRACT

The metaverse has revolutionised the interface between the physical and virtual world. It represents massive strides in technology aimed at merging the virtual world to the physical world. The metaverse poses valid challenges to several rights including the right to privacy. There is clearly a need to undertake deliberate steps to develop policy and regulation of the metaverse to ensure that mankind reaps the full benefits of this technological advancement whilst seriously protecting users from its negative effects. However, regulation of the metaverse is not in itself a straightforward matter, in that normal laws, policies and regulations cannot simply be transposed to regulate it. There is therefore a need to undertake a nuanced approach in formulating policy and regulation for the metaverse. This essay explores the development of the metaverse, its evolution and future direction. It then considers the challenges that the metaverse poses by focusing on the impact the metaverse has on the right to privacy to privacy. The essay establishes that there is a need for deliberate policy and regulatory intervention in the metaverse. The essay then considers the challenges of regulating the metaverse terrain that does not suit orthodox policy and regulatory interventions. It ends by making recommendations on a suitable regulatory framework for the metaverse.

## I. INTRODUCTION

The age of the internet has revolutionised communications around the world.<sup>1</sup> It has, inter alia, led to the creation of cyberspaces including virtual worlds where many activities are performed.<sup>2</sup> The creation and development of the metaverse stands out as the pinnacle of the internet revolution as it has facilitated the creation of virtual worlds that in so many respects parallel and compete with reality.<sup>3</sup> The metaverse has been elaborately defined as follows:

‘...a persistent and immersive simulated world that is experienced in the first person by large groups of simultaneous users who share a strong sense of mutual presence. It can be a fully virtual environment (i.e., a Virtual Metaverse) or it can exist as layers of virtual content overlaid on the real world with convincing spatial registration (i.e., an Augmented Metaverse).’<sup>4</sup>

As a product of technology mirroring so many aspects of real life, the metaverse poses nuanced challenges for lawmakers who have hitherto drafted and designed policy to regulate the physical world. The virtual world of the metaverse transcends and easily reduces to nothing most of the underpinning principles on which law and policy have been formulated for instance questions of jurisdiction, presence, and liability.<sup>5</sup> This essay argues that the metaverse will bring about a real infusion of the virtual and real world. This infusion necessitates deliberate steps to be taken to ensure that there is proper regulation and respect for the rule of law. To support this view, the essay critically considers whether there is room and genuine need for deliberate policy and

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<sup>1</sup> Shandrè Sissing & Johan Prinsloo ‘Contextualising the Phenomenon of Cyberstalking and Protection from Harassment in South Africa’ (2013) 26(2) *Acta Criminologica: Southern African Journal of Criminology* 22.

<sup>2</sup> Ibid.

<sup>3</sup> Elizabeth Picarra ‘Avatars and virtual worlds: Unsettling the rules of porn’ (2012) 26(3) (93) *Agenda: Empowering Women for Gender Equity* 19-30.

<sup>4</sup> Louis Rosenberg ‘Regulation of the Metaverse: A Roadmap’ *Conference paper* available at <https://www.researchgate.net/publication/358989449> accessed on 9 June 2022.

<sup>5</sup> Michael Risch ‘Virtual Rule of Law’ (2009) 112 (1) (5 ) *West Virginia law Review* available at <https://researchrepository.wvu.edu/wvlr/vol112/iss1/5/> accessed on 8 June 2022.

regulatory intervention in the metaverse by focusing on the interface between the metaverse and the right to privacy.

The paper explores the development of the metaverse, its evolution and future direction. It then considers the challenges that the metaverse poses to the right to privacy that may necessitate deliberate policy and regulatory intervention and conversely considers the challenges of regulating the metaverse terrain that does not suit orthodox policy and regulatory interventions.

## II. DEVELOPMENT OF THE METAVERSE, EVOLUTION AND DIRECTION

The development of the metaverse is largely owing to private enterprises which have invested in the creation of virtual worlds mainly to make profit.<sup>6</sup> In this regard, the initial development of the virtual worlds was witnessed in the creation and development of online video games that have evolved from two-dimensional multi-player games to three-dimensional multi-player games where users would have avatars albeit following “pre-set storylines”.<sup>7</sup> Virtual worlds have developed further into second life which mirrors and tries to replicate as much of the real world as possible.<sup>8</sup> In this context virtual worlds have progressively become more autonomous and flexible in that they now have own economies, operational education facilities and social institutions among other.<sup>9</sup>

The metaverse comes yet as another dimension to this interesting development of the virtual world as it promises an actual convergence of the real world and the virtual world.<sup>10</sup> Whereas currently virtual worlds offer a second life, the metaverse seeks to bring about one life experience that utilizes both the physical and virtual experiences.<sup>11</sup> From the foregoing it can be appreciated that metaverse entails those developments in the virtual world cannot be wished away. The world is inevitably moving into an age where the virtual world will have a direct and palpable impact on day-to-day life. It is in this context that the need for regulation of the metaverse ought to be examined.

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<sup>6</sup> M, Boyd ‘Regulating the Metaverse: Can We Govern Ungovernable?’ 2008 *Columbian Law Journal* (2008).

<sup>7</sup> Elizabeth Picarra op cit note 3.

<sup>8</sup> Ibid at 20

<sup>9</sup> Ibid at 20.

<sup>10</sup> Louis Rosenberg op cit note 4.

<sup>11</sup> Ibid.

### III. A CASE FOR REGULATION OF THE METAVERSE - THE CASE STUDY OF THE RIGHT TO PRIVACY

#### a. *Challenges posed by the metaverse*

There are several challenges posed by virtual worlds that may necessitate the need for deliberate steps to be taken to regulate.<sup>12</sup> There have been concerns raised relating to defamation, misinformation and disinformation, pornography, and breach of privacy in these virtual spaces.<sup>13</sup> This essay focuses on the right to privacy to consider whether there is indeed a need to deliberately regulate the metaverse.

Privacy refers to the right to be left alone.<sup>14</sup> Essentially privacy is one of the ultimate expressions of an individual's autonomy in that privacy accords the person control over his or her personal information and enables one to conduct his or her personal affairs relatively free from unwanted intrusions.<sup>15</sup> From this perspective, privacy protects the individual from unwanted intrusions both from the government but also other individuals and groupings in the society.<sup>16</sup>

The virtual space of the metaverse potentially threatens this right to privacy as the metaverse offers easy access into the inner sanctum of people's lives.<sup>17</sup> To begin with, the metaverse runs short of guaranteeing one anonymity in the cyberspace.<sup>18</sup> Essentially the right to privacy dictates that one ought to have the freedom to determine how their personal information is accessed by others.<sup>19</sup> The metaverse seems to be based on openness and transparency as some of the default settings of the platform.<sup>20</sup> Essentially for one to participate in the metaverse, they

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<sup>12</sup> Nicolas Suzor 'The role of the rule of law in virtual communities' (2010) 25 *Berkeley Technology Law Journal*.

<sup>13</sup> R Leenes 'Privacy in the Metaverse' in Fischer-Hübner, S., Duquenoy, P., Zuccato, A., Martucci, L. (eds) *The Future of Identity in the Information Society. Privacy and Identity IFIP — The International Federation for Information Processing* (2008) available at [https://doi.org/10.1007/978-0-387-79026-8\\_7](https://doi.org/10.1007/978-0-387-79026-8_7).

<sup>14</sup> Khalid Alkhatib & Ahmad Alaiad 'The influences of Privacy, Security, and Legal Concerns on Online Banking Adoption: A Conceptual Framework' in Shadi A Aljawarneh *Online Banking Security Measures and Data Protection*. (2017) 118.

<sup>15</sup> South Africa Law Reform Commission Discussion Paper 109. (Project 124) *Privacy and Data Protection* (2005) page 2

<sup>16</sup> Feldman 'Coming to the Community' in Sarat et al *Imagining New Legalities: Privacy and its Possibilities in the 21st Century* (2012) 84-128.

<sup>17</sup> Priscilla M. Regan *Privacy Technology, and Public Policy* (1995).

<sup>18</sup> R Leenes op cit note 13; Anne Wells Branscomb 'Anonymity, Autonomy, and Accountability: Challenges to the First Amendment in Cyberspaces (1995) 104 (7) *The Yale Law Journal* 1642; F. Gregory Lastowka & Dan Hunter 'The Laws of the Virtual Worlds' (2004) 921) *California Law Review* 51.

<sup>19</sup> South Africa Law Reform Commission Discussion Paper op cit note 15.

<sup>20</sup> R Leenes 'op cit note 13 at 101.

ought to consent to some level to give up their personal information.<sup>21</sup> Peculiarly this collection and usage of personal data by the metaverse/ virtual worlds is largely unregulated.<sup>22</sup> In this regard the metaverse poses high risk of interfering with user's privacy.

Further, the metaverse as a product of enterprise and capitalist drive will and relies heavily on advertising to raise revenue.<sup>23</sup> To effectively do this, the metaverse is deliberately designed to track and characterize users on platform to facilitate targeted advertising.<sup>24</sup> There are valid concerns regarding the collection, use and distribution of personal information in virtual platforms.<sup>25</sup> Considering that these virtual platforms become more elaborate in the form of the metaverse and as 'participants become more involved in virtual communities over an increasing range of activities, limits on the storage and use of information collected within the community itself are likely to grow in importance'.<sup>26</sup> Inevitably, there is a high risk and potential that without proper safeguards and regulation these platforms may collect this essential personal data without the necessary consent and or procedure hence violating the right to privacy.<sup>27</sup>

From the foregoing, it is undeniable that the metaverse platform offers potential violations to the right to privacy of users. These problems have hitherto been addressed by Data protection regimes that have been adopted by various jurisdictions.<sup>28</sup> However, the metaverse is a strange terrain whose dynamism and programming may render these data protection regimes ineffective. The essay briefly highlights these challenges and explores potential ways that may be followed to ensure that there is effective regulation for the metaverse.

*b. Challenges in trying to police the metaverse? -should governments police mechanisms of a private enterprise?*

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<sup>21</sup> Nicolas Suzor op cit note 12 at 1861.

<sup>22</sup> Ibid.

<sup>23</sup> M Boyd op cit note 6.

<sup>24</sup> Louis Rosenberg op cit note 4.

<sup>25</sup> Nicolas Suzor op cit note 12 at 1861.

<sup>26</sup> Ibid at 1862.

<sup>27</sup> R Leenes op cit note 13 at 101.

<sup>28</sup> See The General Data Protection Regulation (GDPR) and Africa by the adoption of the African Union Convention on Cyber Security and Personal Data Protection. Among others.

As highlighted earlier, the metaverse is a unique platform whose regulation may require a nuanced approach from traditional approaches to regulation.<sup>29</sup> Despite the clear need to regulate the metaverse, it has not been easy to come up with a comprehensive policy or regulatory regime for several reasons.

First, the want of existence of a widely acceptable international legal system is one of the biggest setbacks in regulating the metaverse. The metaverse by its very nature is a product of numerous connections and interactions of technological concepts such as Virtual reality, Mixed reality, and Augmented reality to enable users to cohabit with other others in a bid to create their own reality.<sup>30</sup> The metaverse therefore brings together players from different jurisdictions across the world which poses the question: Can there really be an international legal system regulating the metaverse? John Austin once argued that there could never be an international legal system because of the impracticality of having a universal sovereign who can be obeyed worldwide.<sup>31</sup> His view was that at international level, states and entities could only owe as against each other moral and legal not obligations.<sup>32</sup> The Austinian conception of the international legal system seems to be one of the challenges faced in policing the metaverse. The reality is that even though different states around the world have successfully regulated and policed the data and internet related regime through enactment of laws, the same cannot be easily done at international system level because the international system does not really have a universal sovereign who can sanction the actions of all the players in the metaverse.

The second challenge in regulating the metaverse is the likelihood of the regulations or policy not being enforceable at all. Lon Fuller argues that one of the ways of failing to make law is the making of laws which don't achieve the intended results.<sup>33</sup> The players in the metaverse are corporations and different natural persons across the world. There are currently over 160 corporations operating in the metaverse worldwide.<sup>34</sup> Therefore, even if policies and or regulations were adopted to address the myriad issues of concern posed by the metaverse, the

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<sup>29</sup> Michael Risch op cit note 5.

<sup>30</sup> S Salloum 'A conceptual framework for determining metaverse adoption in higher institutions of gulf area: An empirical study using hybrid SEM-ANN approach' (2022) *The Journal Computers, Education: Artificial Science*.

<sup>31</sup> J Scott 'The Legal Nature of International Law' (1905) 5 *Columbia Law Review*.

<sup>32</sup> John Austin *The Sphere of Jurisprudence Determined* (1995).

<sup>33</sup> Lon Fuller *The Morality of Law* (1969).

<sup>34</sup> M Boyd op cit note 6.

likelihood of such a regulatory or policy regime being enforceable is wanting because the metaverse is not an easily reachable and governable sphere because of the numerous international players involved.

The non – existence of comprehensive standards of interoperability is another challenge affecting the policing and regulation of the metaverse. The metaverse, which has different players from all over the world, should ideally have acceptable standards and rules of engagement applicable to all the people involved in it. Unfortunately, the current metaverse regime has no widely acceptable standards of interoperability which presents a policing and regulatory problem.<sup>35</sup> Priestly observes that the unavailability of widely acceptable standards of interoperability makes it difficult to address the various problems the metaverse has.<sup>36</sup> He adds that if the metaverse had standards of interoperability it would be possible to easily hold the different role players accountable for their actions.<sup>37</sup>

The last challenge faced with the policing or regulation of the metaverse is the want of compelling justification for the interference by Governments on the actions of private corporations and other players in the metaverse. The metaverse is largely dominated by big corporations and such other smaller firms and natural individuals.<sup>38</sup> If the metaverse were to be really and practically regulated at an international system level, then there would be need for Governments to come together and adopt some form of uniform framework for the regulation of the metaverse.<sup>39</sup> However, given that the metaverse is not Government – driven but rather private – law oriented, then the quest for Governments to regulate the actions of private corporations involved in the metaverse is susceptible to great opposition. Louis suggests that the interference by Government would likely conflict with the need to venerate the rights of the private legal and natural persons involved in the metaverse.<sup>40</sup>

From the foregoing, it is apparent that regulating and or policing the metaverse is quite a mammoth task because the metaverse which is very globalist does not have a universal

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<sup>35</sup> Ibid.

<sup>36</sup> T Priestly ‘Metaverse, Standards and Interoperability’ available at <https://www.metapunk.co.uk> accessed on 30 June 2022.

<sup>37</sup> Ibid.

<sup>38</sup> M Boyd op cit note 6.

<sup>39</sup> Louis Rosenberg op cit note 4.

<sup>40</sup> Ibid.

international legal system which can monitor its operations. The other challenges include the likelihood of the regulatory framework or regime not being enforceable at all, the non-existence of acceptable and uniform standards of interoperability and the want of justification for Governments to interfere and or control the private dealing of corporations and such other individuals involved in the metaverse. There is therefore a genuine need for a nuanced approach to resolve these challenges that may be faced in regulating the metaverse in the near future.

*c. Potential solutions for regulating the metaverse vis a vis the right to privacy*

The foregoing areas have argued that indeed the metaverse poses several challenges that warrant regulation chief among them being the right to privacy. Further the essay has explored problems that may be encountered in trying to bring about effective regulation for the metaverse. This section considers some potential solutions that may be considered in trying to regulate the metaverse specifically in the context of right to privacy.

The major challenge posed by the metaverse is the fact that it is not restricted by national boundaries.<sup>41</sup> As highlighted, this makes it difficult to regulate as differences in regulations across the globe entail that there can be no uniform protection offered to protect the right to privacy in the metaverse.<sup>42</sup> This challenge is exacerbated by the fact that there are no binding global international conventions to uniformly regulate data protection.<sup>43</sup> There have been isolated efforts for instance in the EU by the adoption of the General Data Protection Regulation (GDPR) and Africa by the adoption of the African Union Convention on Cyber Security and Personal Data Protection. A global treaty would ensure a uniform approach in dealing with data protection especially in all its cross border elements. This would ensure that data protection principles are adhered to the latter whenever data is crossing borders and that adequate and robust protections are offered at all material times for users in the metaverse. This would however be subject to robust lobbying to ensure that as many countries as possible are member states to the convention

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<sup>41</sup> Ibid.

<sup>42</sup> Michael Risch 'op cit note 5.

<sup>43</sup> Apart from the regional treaties like the GDPR and AUCCSDP, 2014 available at <https://au.int/en/treaties/african-union-convention-cyber-security-and-personal-data-protection>, accessed on 20 August 2020.



and are bound by it. Those countries that refuse to be party may have to be excluded from utilizing the metaverse.

Further, as highlighted herein, the platform owners of the metaverse are largely private enterprises who have hitherto regulated their platforms by agreements with the users.<sup>44</sup> This has brought about lack of uniformity in treatment of users. Apart from subjecting these enterprises to a global data protection regime in their respective countries, there may need to be an extension in the usage of binding corporate rule. Hitherto these rules have been used to enforce data protection rules between companies in the same group in different countries.<sup>45</sup> However, this concept may be developed further to facilitate a similar framework that operates across different corporate groups in different countries. This would ensure that there is uniformity and a unified effort and approach in ensuring that privacy concerns in the metaverse are adequately addressed.

#### IV. CONCLUSION

This essay has highlighted the need to regulate the metaverse. The metaverse poses/will pose serious challenges to normal day to day lives as the metaverse seeks to bring about an integrated way of life between the physical and virtual world. The case study of privacy exposes that there is indeed a need to regulate the metaverse. A nuanced approach is needed to regulate the metaverse and this essay proposes a nuanced approach that extends existing principles on data protection to give them a global and unified force. This will ensure that private creators of the metaverse are subjected to a binding regime requiring them to enforce uniform data protection to users of the platform.

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<sup>44</sup> M Boyd op cit note 6.

<sup>45</sup> See section 72 of the Republic of South Africa Protection of Personal Information Act (POPIA), 4 of 2013.

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