

Virtual Crimes of the Virtual World will Affect us in Future

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The world keeps on changing. We are continuously innovating and at times creating new threats, challenges, and difficulties for ourselves and the generations to come. Creation of Metaverse will bring us new ways of communicating and new worlds to interact and live in, and probably transform our lives as internet did in the past.

The term metaverse was first coined in 1992 by the author Neal Stephenson in his science fiction novel *Snow Crash*. Just as the metaverse was science fiction in 1992, today a 'real' metaverse still does not yet exist. The metaverse is often described as a hypothetical iteration of the internet as a single, universal virtual world that presents the user with an immersive experience that feels 'real', usually using a headset. In its very recent definition, it can blur the lines between the physical and virtual world to create a single blended, extended, or mixed reality. As a result, the metaverse is now just focused on virtual reality (VR), but is increasingly being defined in terms of augmented reality (AR) or extended or mixed reality (XR).

Metaverse is a concept on online and persistent 3-D software which creates virtual workspace for each user in which the users are introduced to a virtual life in a virtual universe. The users can live a "second life" where they can buy, sell, meet, socialize, invest etc. and are able to live a second virtual life.

With the recent launch of Meta's platform Horizon Worlds in France and Spain the company is bringing its immersive world or metaverse experience to Europe. When Mark Zuckerberg announced³ in October 2021 that Facebook would now be called Meta, it brought the concept of the metaverse to the public's attention. Google, Microsoft and

many others are also making big investments in this technology.

In visions like that of Meta, the metaverse is the evolution of internet, or an embodied internet. Other visions include immersive offline experiences that enable users to experience a different reality, or a combination of the physical and virtual world in a type of mixed reality. An important factor in this is the idea of so-called 'digital twins', which provide a model of offline entities that digitally represent them as accurately as possible, often providing real-time information from sensors. This will allow further integration of the virtual and physical worlds by representing the latter in real-time in the former, autonomously. Thus, integration of the physical and virtual worlds goes both ways, blending both worlds. Examples of this are Seoul's recent announcement to provide many of its access to public services via metaverse is one such example. Even entire countries, such as Singapore, are investing heavily in providing digital twins. An instance of avatar work can be found at a café in Tokyo, where paralyzed people control robot waiters remotely. The waiter can see the café and the people in it through the robot and control it to wait the tables and start a conversation. This enables people to do work they otherwise could not do by using a physical avatar.

According to an estimate published by Europol, it is expected that the total turnover of metaverse will reach 1.6 trillion euros by 2030 and 25% of the population will be spending one hour daily on metaverse.

Despite being in its early stage, the emergence of Metaverse has the potential to be a complete game changer for societies across the world, including for crime and law enforcement.

With the combination of block chain, web3 and NFT technologies, Metaverse will inevitably impact existing criminal threats like crimes

against children and fraud, and generate new forms of crime.

As the Metaverse grows in popularity, the list of crimes will only expand, in some cases defying imagination:

According to a study published by Interpol, some of the crimes which are expected to increase are as follows:

- Money Laundering
- Data Theft
- Child Grooming and Child Sexual Exploitation
- Cyber Attacks in and from Metaverse
- Cyber Physical Attacks
- Financial fraud, social engineering and scams
- Counter feinting and copyright infringements
- Terrorism recruitment and training
- The Darkverse

Are we ready to tackle this probable increase in crimes.

There are new challenges arising for the law enforcement agencies with the advancement in metaverse, which are to be addressed:

- Managing and establishing the authenticity of digital identities in the Metaverse will be a challenge for individuals and institutions, including law enforcement.
- The volume of data collected by the firms operating the Metaverse will magnify the challenge to data protection, privacy, ethics and human rights, with implications for cross-border information exchange as well as building regulatory framework to ensure secure-by-design user experiences.
- Interoperability - the ability to unify economics, avatars, and systems across

different virtual worlds - is key to the concept of the Metaverse but will likely present issues for industry leaders/consortiums and regulators.

- Edward Snowden posted on Twitter, outlining that people should not forget that “in five years Zuckerberg gonna own your eyeballs and pause the ads every time you blink.” Measures will have to be taken to ensure the safety of users online and offline. This could range from agreeing to certain technical standards to raising awareness about security risks, digital hygiene and «VR Hangover».
- Since currently many parts of the world lack reliable broadband, hardware and/or digital skills needed to access the Metaverse, accessibility and inclusiveness are sure to emerge as key future issues.
- As law enforcement cannot police without legislation, there will be an urgent need for laws that criminalize acts that cause harm in or through the Metaverse. Such efforts may also include efforts to regulate the use and transactions of virtual assets, given their significant role in the Metaverse.

At a session of the 90th general assembly of Interpol, it announced the establishment of first metaverse fully designed for the law enforcement worldwide.

Pakistani law enforcement agencies are in dire need to increase their skills, while other law enforcement agencies are preparing for future cybercrimes, we are still struggling with the existing incidents in the country. Government should develop capacity building programs with the help of public private partnership and support them with sufficient up to date infrastructure. Till then we will remain struggling with various types of cybercrimes and the burden of unsolved cases will keep on growing. May be its time to take combating cybercrimes seriously in Pakistan.