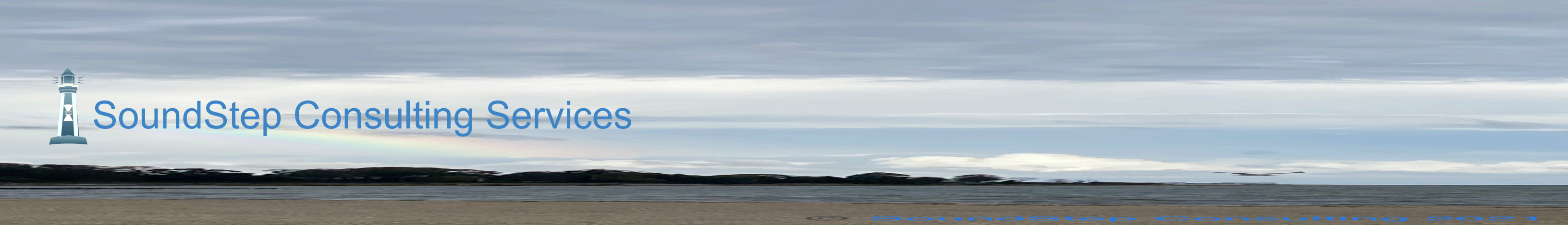


Property Insurance Products in Metaverse

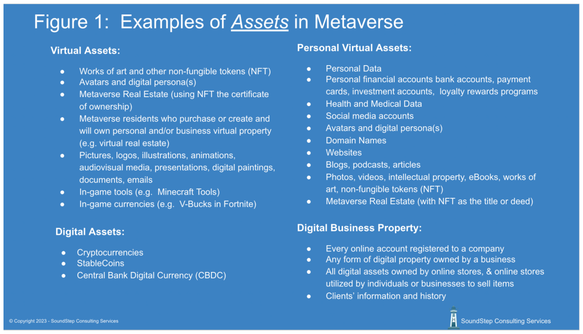
Property in Metaverse Today

Property ownership continues to grow in Metaverse. Virtual lands continue to be purchased, buildings, stadiums, auditoriums continue to be erected, and stores, showrooms, customer lounges are also being created. There are vehicles, and furniture to fill mansions and houses, clothing and accessories for avatars, and digital paintings and other works of art; and of course, gamers continue to build property they utilize for their games or to sell to game designers.

There are also other types of property ('assets') that continue to be created by individuals, corporations, and organizations in Metaverse. Figure 1 provides examples of the 'assets' that exist in Metaverse today. They are categorized as *Virtual Assets, Personal Virtual Assets, Digital Assets, and Digital Business Property or Commercially-owned Digital Assets* because of the nature of who owns them as well as how they are utilized.

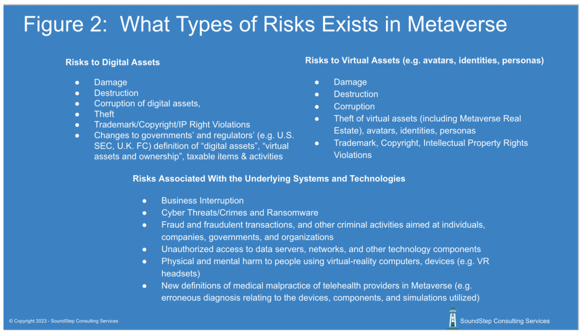
Proof of Ownership in Metaverse

Non-fungible tokens (NFT) are used as the equivalent to titles or deeds, or certificate of ownership in Metaverse. Without going into technical details, non-fungible tokens are unique cryptographic (that is, special techniques to secure communication between or among parties) tokens that exist on a technology called blockchain. Blockchain is a system where the record of transactions is maintained across computers and constitutes what essentially becomes a distributed and decentralized public record. In effect, NFTs cannot be easily replicated.



Risks in Metaverse

The types of risks in Metaverse are practically the same as those in the physical world. A summary is provided in Figure 2.



Property in Metaverse are exposed to destruction, damage, corruption (accidental and criminal), theft and other types of risks which are similar to the risks that property in the physical world are exposed to.

What Constitutes Damage to Property in Metaverse?

In the physical world, what constitutes property damage is physical damage to tangible things. Insurance policies in the physical world *exclude* electronic data as tangible property. This is true of practically every insurance policy whether commercial or individual. Therefore new definitions, contract terms and conditions, specific language and riders that will need to be developed if a business owner wants to be protected from a hacker vandalizing her virtual showroom, or a homeowner wants to be protected from accidental or criminal corruption of his property.

Although insurers today have been able to develop policies with the appropriate language for cybercrime, ransomware attacks, data breaches, and other computer related risks, new policies will have to be created in a virtual world where the definition of a property and asset, and their value or worth is rapidly changing and evolving.

Most companies purchase business insurance (aka business owner's policy, or a BoP) to protect against liabilities but these policies do not include coverage for business property. This is true even in Metaverse today.

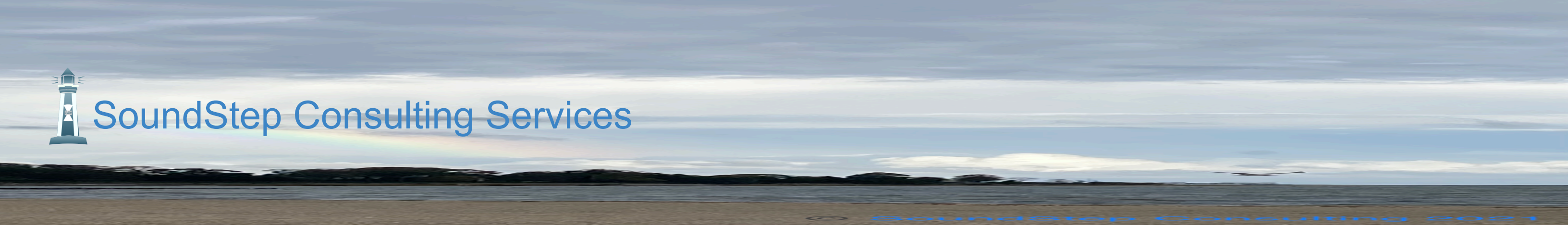
It's worth noting that damage and corruption of virtual property or assets happen through corruption or damage to the controlling logic, the underlying systems, metadata pointers, and technologies, and the events and conditions that permitted it.

Relevant Property Insurance Products

The property insurance products that exist today will remain relevant in Metaverse. Examples include:

- Business Owners Insurance
- Homeowners Insurance
- Vehicles Insurance
- Renters Insurance
- Specialty Insurance (fine art rare paintings, drawings, photographs, prints statuary) jewelry, rare books, sports memorabilia, collections such as stamps, rare coins, action figures, sports memorabilia, unique and novel items, etc.)
- And Many Others

One should not lose sight of the fact that the Metaverse vision is not limited to commerce in the virtual world. Therefore, it should not be unusual to encounter virtual objects and properties that are not all the same as what exists in the physical world. A walking, talking avatar embedded in a painting and riding an alien vehicle is still a virtual asset, with a unique NTF, with value, and with ownership. To provide insurance coverage for this new creative 'thing' will likely follow what its creator in Metaverse calls it. It might be called an Avatar and Alien Vehicle insurance policy. It remains to be seen. But that's what's truly fascinating about virtual worlds and virtual realities, and the fact that even in the nascent stage of Metaverse a universe of possibilities exists.



The Evolving Metaverse

New assets are still being created in Metaverse and definitions for what constitutes a digital asset or a virtual asset is still evolving. New taxonomies and asset classification frameworks and methods are still being developed, and agreements on what terminology to use and their definitions are still being discussed, debated, agreed to or parked, by governments, financial institutions, banks, insurance companies, and academics. Tedious as these activities may seem they are crucial to defining the laws and regulations for the assets in Metaverse and for Metaverse itself.

Governments, Banks, Financial Institutions, Insurance, and other Organizations are yet to agree on terms and definitions – a crucial prerequisite to defining laws and regulations for Digital Assets, and for Metaverse.

Clear terms and definitions are crucial to any contractual agreement (including insurance policies) and crucial to defining what constitutes the following criminal uses of digital and virtual assets:

- Anti-money laundering (AML) and Countering the Financing of Terrorism (CFT)
- Enabling blocked persons and organizations to access the U.S. market and financial system via high-value works of art (NFT)
- Hacking to prevent access to virtual assets for by their rightful owners
- Introducing cyber attacks that disrupts virtual shows, performances, and sports events

Creativity and Innovation

Developing insurance products in Metaverse requires a different mindset. In Figure 3, a brief list of attributes that makes the Metaverse commercial environment markedly different from that of the physical world.

It's important to note that this is the environment that gamers are comfortable in (both in the online non-Metaverse world, and in the Metaverse gaming world).

Gaming individuals and teams are used to decentralized ownership. They understand what speed means with respect to product creation (i.e. games), product pilots and marketing, and live launches.

Figure 3: The Metaverse Commercial Environment is Markedly Different

They understand the importance of unique, personalized avatars, the agility requirements essential to both creating and playing games, and game designers and developers understand and actually thrive in the dynamic and rapidly changing environment. Games were being sold, acquired, shared, earned through play without the hard currency.

It's important for insurance product strategists and product managers to keep in mind that the limitations of the physical world are for the most part not present in the virtual world - however, the environment, whether for social interactions, gaming, commercial purposes demands a very different and higher level of performance.

The Overarching Challenge

For insurers the overarching challenge in Metaverse is to create prevention and protection products in a markedly different commercial environment while applying the criteria for what constitutes *insurable risks*.

Table 1 provides an opportunity to review the elements of insurable risks as defined by the Casualty Actuarial Society in 2021, and to appreciate the overarching challenge insurers face in the virtual world.

Table 1: Seven Elements of Insurable Risks[1]

Criterion	Criterion Type	Detail
Fortuitous	Actuarial	Timing and location of future events must be uncertain and accidental.
Measurable	Actuarial	Losses must be well-defined and verifiable upon occurrence.
Independent	Actuarial	There must be weak or no correlation within a portfolio of insureds.
Market- Bearable	Actuarial	Maximum possible losses in an accident year from the insured event must not be excessive for insurance markets to absorb.
Predictable	Actuarial	Ideally, costs must be estimable, which requires a sufficient number of insureds across a sufficiently large number of historical events to be used as sample data.
Fair	Economic	There should be no potential for adverse selection or moral hazard in the policy portfolio, and the contracts should not be unfairly discriminatory to individual insureds.
Affordable	Economic	The transfer price must be attractive to both the insurers and the insureds.

Note: 1 - Source: © 2021 Casualty Actuarial Society. All rights reserved.

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Three Approaches

One approach for stepping up to the challenge of creating insurance products in Metaverse is to start only when there is sufficient gravitas for risk coverage. One could label this as the wait-and-see approach.

Another approach is to partner with a few Metaverse businesses and virtual asset creators (individuals and organizations) and in lock-step with creators and start creating risk coverage that meets their needs and expectations. The ensuing products can then be enhanced or transformed - but an insurer would have acquired hands-on experience.

Yet another approach is for insurers to leverage Metaverse as it exists today and use it to achieve their goals both in the physical and the virtual worlds.

The last two approaches will be covered in the last two articles of this series on Insurance in Metaverse: A Universe of Possibilities.

The next article is on Insurance Liability products in Metaverse.