WSIS 2024 Session 285 :AR VR and the Metaverse, An opportunity to enhance ehealth Technologies

Presented by: Internet Governance Forum, Dynamic Coalition on Data Driven Health Technologies

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Key issues discussed:

1) There is an incredible and tremendous opportunity to leverage this technology for the healthcare industry and other industrial applications. It is no longer just for recreational use.
2) The internet is not a requirement for the use of these technologies, they can be used stand alone. Hence, it can be used in remote locations and integrated into telecommunications networks, with a phased in approach. It would require 5G.
3) These technologies fully immerse the user into a scenario and activate multiple human senses. There can be health side effects with overuse.
4) The use of these technologies can provide standardized, quality, repeatable training for healthcare staff. Student anxiety could be reduced and the most effective use of hands on training, may be achieved. Simulations increase the knowledge base of students. The use of the technology can reduce training costs and speed up training, which may also be conducted in remote locations, making education more accessible to all.
5) Public education, alternative medicines education, and education for patients at home, and for caregivers, can also be provided through these AR, VR Mixed Reality educational products. Some education is already in existence.
6) The privacy issues for these technologies must be discussed further. It uses real, cloned, twinned and AI developed data input values, to create a spectrum of real and artificial out-come and retained values
7) Technologies developed for other industries, e.g. the textile industry and electronic games industry, can be repurposed for use by the healthcare sector, reducing development costs and opening up to multistakeholder investment opportunities.

8) Africa has a young population that can be trained in and for the development of these technologies. Other countries that are textile producers should train their staff with IT skills to use these technologies.
9) The technology can be used innovatively to remediate for waste and e-waste issues, so as to assist with the management of impacts to global climate change and hazards management.
10) Healthcare workers can benefit with customized protective clothing and foot ware. Other industrial workers at risk, can also benefit with these design initiatives. This will also assist with development of medical robots.
11) Prosthetics and other customized medical supports for patients can be developed with these technologies, as well as assist with remote surgery, heath care discovery, modeling and simulations for preventative care.

Tangible Outcomes

Tremendous opportunity for training healthcare staff and for all industries for skills development. Health care training can be standardized, developed centrally at lower overall cost, to be made readily available. Perhaps the use of these technologies will reduce anxiety for students, with the opportunity to repeat training exercises and increase practice, leading to an enhanced skill and knowledge. This technology will not replace real practice, but will bring a better prepared student to the real practices, enhancing the overall quality of the training and providing the opportunity to train more students faster and at a lower cost. This is a great opportunity for Public Private Partnerships investment between government and the healthcare industry.

Customization is a key feature of these technologies, that can be used with success across industries for many innovative applications.

Action Plan

Encourage ongoing and enhanced, global multi-stakeholder discussions regarding this technology space, including conversations on opportunities, risks, unseen issues and complexities, social benefits, economic benefits, remediation for climate change issues, values, norms, weaknesses etc.

A differentiation must be made between this fully immersive technology and general AI and mainstream robotics.

Records management vis a vis patient health care records, will have an additional level of complexity imposed upon it, by these technologies, and hence a full, analysis of each

situation is required to limit risks, for instance to privacy. The development of an ITU guidance and issues paper document for this space would be beneficial for developers and users. Continued development of ISO and other standards and best practices recommended.

Themes for WSIS 2025

1) Should privacy best practices and legislation for AR, VR, Metaverse, and Mixed reality spaces be developed new, or should existing practices be enhanced ?
2) Should a special focus be developed for the Ethics governing this space ?
3) What public education should be rolled out for users and who should provide it?
4) Collaboration for multi-stakeholder / Public Private Partnerships for investing in this space, understanding, that the internet is not a pre-requisite for these technologies.
5) How can emerging technologies support waste and e-waste management, and the climate?