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Metaverse: The Future Avatar of Language Learning

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To begin with...

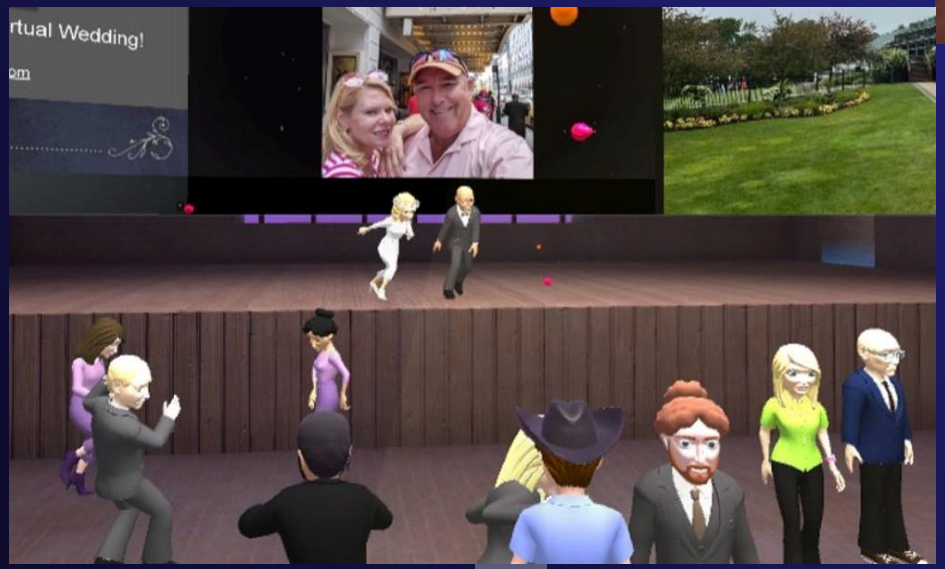
SKT's metaverse platform Ifland used for hosting virtual meetings users can participate through their digital avatars

My avatar... created using Ready Player Me

Schools and organizations in South Korea and Japan are using the Metaverse as a teaching and training tool

Pohang University of Science and Technology in South Korea is working to become a "metaversity"

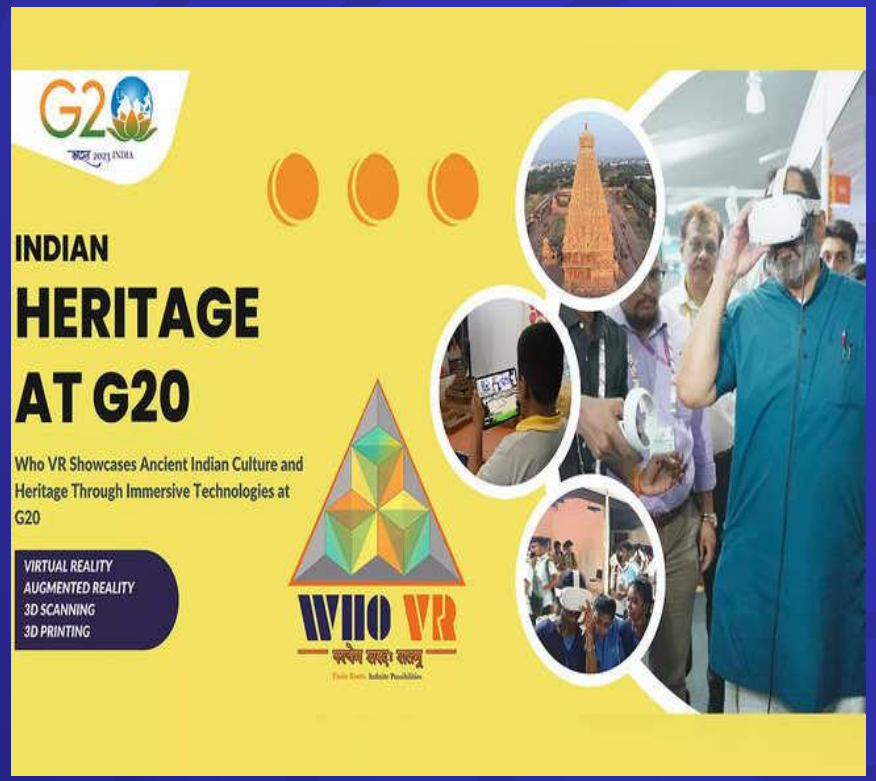
Daler Mehndi, Indian singer, the first Indian singer to perform in the Metaverse.



The First Wedding In The Metaverse

Fashion brands in the metaverse

Virtual Oxford Street at night, with happy avatars



India showcases its ancient culture and heritage through immersive technologies at G20

Unpacking Metaverse……

Origin:

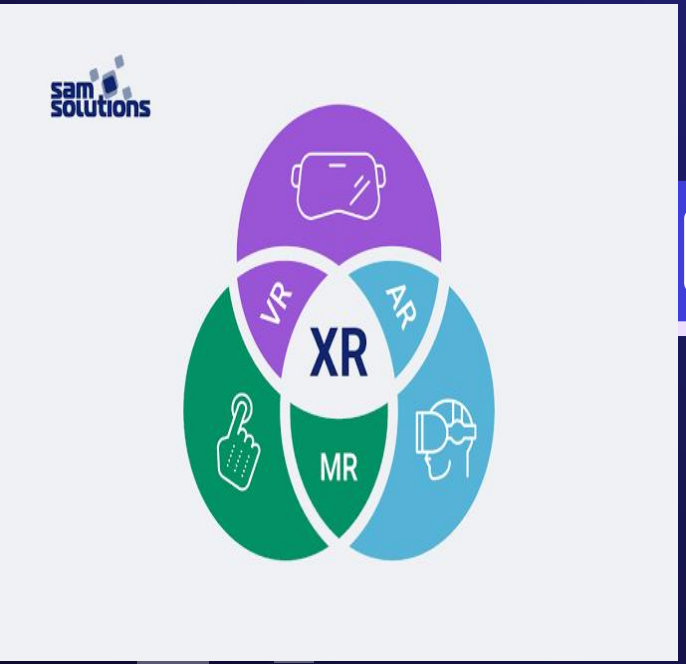
Etymologically, meta - “after” in Greek, and verse - “Universe” so metaverse implies a world or conception that requires the “real” world in order to move beyond it and acknowledge another realm

The phrase *Metaverse* first appeared in Neal Stephenson's 1992 sci-fi novel *Snow Crash* (In this novel, people try to escape the pain of the real world by exploring a digital world through several digital avatars (Stephenson, 1992)

When Facebook rebranded its corporate identity to Meta in October 2021 where Mark Zuckerberg revealed his idea of the futuristic web which converges with our physical realm whilst humans walk around as virtual avatars

We've gone from desktop to web to mobile; from text to photos to video. But this isn't the end of the line. The next platform will be even more immersive — an embodied internet where you're in the experience, not just looking at it.
We call this the metaverse, and it will touch every product we build

Defining - VR, AR, MR & XR



The emergence of immersive technologies -Virtual Reality (VR), Mixed Reality (MR), Augmented Reality (AR), and Extended Reality (XR) significantly enhanced the Metaverse across an array of instructional purposes

VR - immerses users into an entirely different environment, typically a virtual one created and rendered by computers. For example, virtual reality users may be immersed in an animated scene or a digital environment. Virtual reality can also be used to photograph an actual local location and embed it in a VR app. Through a virtual reality headset, someone can walk around Italy as if they were actually there.Virtual Reality (VR) - type of immersive technology, includes 360-degree viewing, Augmented Reality (AR), and Mixed Reality (MR). While VR isolates the users from the outside world using a head-mounted display, 360-degree viewing and AR extend the reality.

AR- A type of technology that allows digital images and information to be displayed onto the physical environment and is in use in many industries - social media in Snapchat, Insta, and TikTok filters
gaming - Pokemon Go.
GESAL- a Nigerian edtech helps students visualise learning - providing 3D imagery of diagrams in their textbooks.

MR - Mixed reality merges the real and virtual world to create unique experiences where digital and real objects coexist. A unique feature of mixed reality, however, is that MR features allow you to interact with the virtual/digital world. So Instagram filters that activate when you make a gesture, or even Zoom reactions that allow you to use emojis with certain hand gestures are all considered MR.

XR- Extended reality is the combination of all environments, real or digital; man-made, natural, or computer-generated..

Leveraging the technologies of VR, AR, and MR, the metaverse will evolve with enhanced functionalities with the help of blockchain, AI, and connectivity technologies.

Potential Applications of the Metaverse in Education

As indicated by scholars, education is one of the most significant applications of the metaverse with great potential in the coming future. We believe that the presence of the metaverse can be served as a new educational environment (Suzuki et al., 2020; Prieto et al., 2022; Rospigliosi, 2022)

Assists blended learning

Assists virtual experiment learning

Assists inclusive education

Assists language learning

Assists competence-based education

Blended learning

In times to follow, the metaverse can generate several new paradigms of blended learning to improve learners' involvement and experiences (Ko et al., 2022).

Wearable technology gives teachers and students who are geographically dispersed an excellent opportunity to participate in educational environments.

Students can interact constructively with both real and virtual teachers and peers in different learning situations while taking part in a variety of learning activities using avatars (such as lectures, individual assignments, group panels, and collaborative projects).

It may also dramatically improve student engagement and motivation in learning.

Virtual experiment learning

By using the metaverse for virtual experiment learning, it is possible to overcome limitations in the physical world, such as those related to money, resources, locations, or potential risks.

It also enables learners to remotely observe, measure, record, and control experiments while working together.

Additionally, practicing consistently can aid in skill development and encourage learning from errors.

Applying the metaverse to virtual experiment learning may be worthwhile in light of these advantages.

Language learning

In order to become proficient in two or more languages for K–12, higher education, or the workplace, language learning has become essential since the turn of the twenty-first century (Peters and Fernández, 2013).

Traditional language learning has mostly been passive, both in and outside of the classroom, for a variety of reasons, including a lack of contextual practise or engagement (Liang et al., 2021).

According to researchers the creation of the metaverse has the potential to greatly aid in the promotion of language acquisition (Parmaxi, 2020; Park, 2021; Guo and Gao, 2022; Lee and Jeong, 2022; Ryu, 2022).

The metaverse should be used in language acquisition for varied reasons.

A strict learning environment is initially necessary for language acquisition, particularly in listening and speaking sessions (Chen et al., 2021; Lin and Wang, 2021).

For instance, the aim of a speaking lesson is to develop spoken skills through the practice of a dialogue on the subject of requesting flight information in an airport setting.

However, in a real-life setting, it is extremely unrealistic for teachers to take an entire class of students to the airport or to invite the airport staff to visit the school.

But in the metaverse, students can take part in a variety of educational activities, like role-playing , dialogue practice with avatar partners or with a predetermined intelligent airport staff member or air hostess, in a simulated airport scenario. In this instance, the metaverse might put language learners in a simulated but lifelike learning environment for them to undergo an immersive language learning process to improve their language skills.

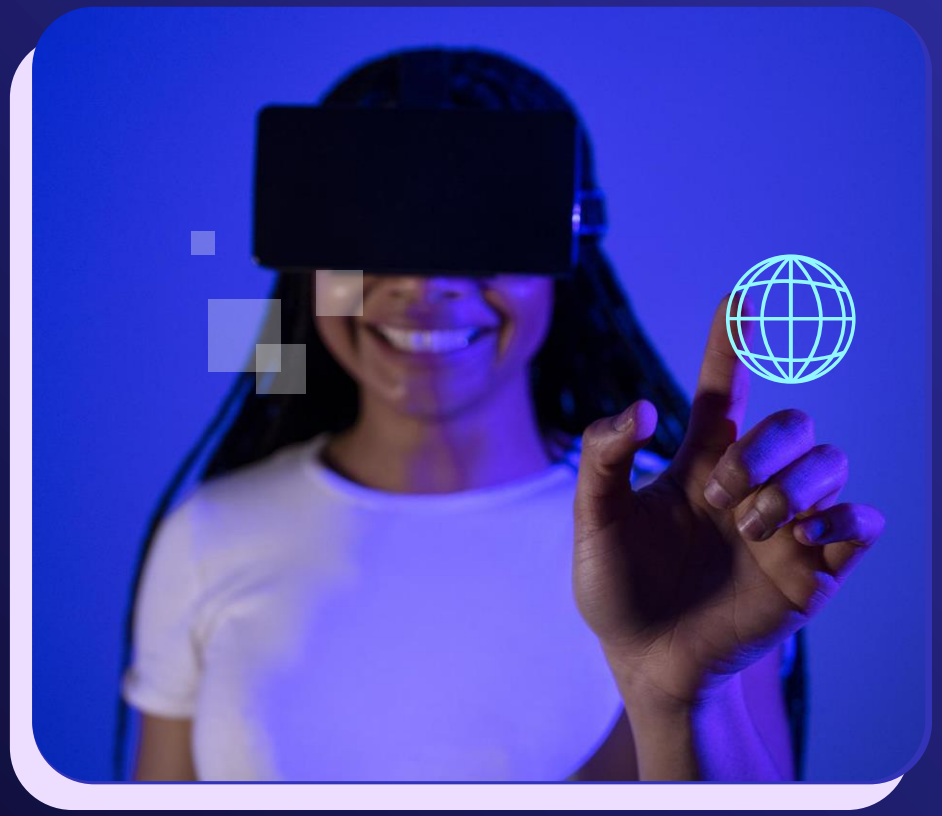
Language learning also necessitates ongoing practise outside of class.

In this situation, the metaverse can offer language learners a suitable setting for real-time practice and unrestricted engagement with actual or NPC roles outside of the classroom, which may also aid in the efficient transfer of their language skills to the real world. Additionally, language acquisition necessitates ongoing, sustained practise outside of class.

Competence based Education

As there is no conclusive evidence showing a link between *knowledge about* a subject and the ability to use that information in context, CBE expressly focuses on what learners can *do* rather than on what they *know* (Smith & Patterson, 1998). The basic idea is to focus on *objective* and *observable* outcomes which can be easily measured. However, Covid – 19 made it impossible to conduct CBE.

In this context, the metaverse can offer a potential solution to overcome this situation by enabling the teachers and students to seamlessly transition between classroom settings and professional settings, assisting the learners in gaining general and specialized knowledge by remotely observing the process; on the other hand, it can permanently place students in a professional learning environment to practice skills with target groups whenever and wherever possible.



Inclusive Education

According to Spandagou and Sahli Lozano, Inclusive Education is a system that enables all students to obtain the education and support they require in regular classroom settings(Spandagou, 2021; Sahli Lozano et al., 2022).

The integration of students with special needs in general education classrooms with other students is first hampered by the identification difference (de Boer et al., 2011; Schwab, 2017).

These learners' digital identities in the metaverse can be recreated to remove identity labels and prejudice, enabling them to participate in classroom activities with other students with confidence and a sense of belonging. the metaverse can assist learners with personalized learning and special services based on physical and emotional data via computing, big data, learning tracks, and so on.

As a result, the metaverse may meet the principle of inclusive education, which recognizes and values the diversity of every learner; more importantly, it gives all learners an equal opportunity to participate.

Metaverse & English language instruction

English language instruction can be done in a number of different ways using Metaverse.

Interactive vocabulary game	To help pupils properly acquire and memorize words, one can turn to Metaverse to develop a vocabulary game. There may be several stages in the game, and space-themed characters might direct the pupils through tasks like spelling, pairing, or filling in blanks with the right spellings of the words. As their vocabulary grows, children gain points and advance through the game.
Role-playing	To design role-playing scenarios that would allow pupils to practise and develop their English-speaking abilities. For instance, a role-playing scenario can be developed where the students act out a restaurant scenario where they practice placing orders for food, asking for the bill, and other related dialogues.
Virtual field trips	It is possible to take students on virtual field trips in the metaverse so they may acquire English while simultaneously exploring different locations. Students can, for instance, communicate with individuals in an English-speaking nation digitally whilst understanding its culture, geography, and language.
Interactive storytelling	In order to provide interactive storytelling, where students can read and listen to stories while engaging with various characters and situations. This can give kids a fascinating and immersive experience while also enhancing their reading and listening abilities.

A Sample Lesson Plan to teach Spellings using Metaverse

https://studio.gometa.io/discover/me

https://docs.google.com/document/d/1j43qH4W9Qz4QQQ4m51OsmXMmBr-uvLqq-qsWseQlWao/edit

1. First, create a Metaverse account and log in.

2. Click on the "Create" button to start a new experience.
3. Choose a theme for your Metaverse experience that would engage and appeal to learners. For example, you could use a school setting or an adventure theme.

4. Select the interactive elements you would like to use to teach spelling. These could include the "Education" template to create an educational experience.

5. Choose a scene for your lesson, such as a classroom or a library. Add interactive objects and characters to the scene.

6. Add text boxes or speech bubbles to the characters to display English words that students will need to spell correctly.

7. Add rewards or feedback for correct and incorrect answers.

8. Share the Metaverse experience with your students, either by having them join the experience on their own devices or by projecting it on a shared screen.

9. Monitor and track your student's progress through Metaverse analytics.

10. Repeat the process for different spelling units, keeping the experience engaging and interactive for students.

Step 1: Introduction - 5 minutes
- Explain what Metaverse is and how it can assist in teaching spelling
- Introduce the lesson

Step 2: Create a Spelling Scene - 10 minutes
- In Metaverse, create a spelling scene by selecting the background and objects.
- Include words that students will learn to spell in the scene.

Step 3: Explore Words (Step 2: Warm-up - 10 minutes)
- Use Metaverse to create a spelling activity that includes various spelling patterns or words (e.g. phonetic sounds, vowel combinations, sight words, etc.)
- Ask students to complete the activity as a warm-up exercise

Step 4: Interactive Spelling Lesson - 25 minutes
- Using Metaverse, create a 3D interactive spelling lesson that incorporates the spelling words or pattern being taught (e.g. a puzzle or scavenger hunt with letters to form the words, a virtual spelling bee with other avatars, etc.)
- Guide students through the lesson and provide feedback as needed

Step 5: Independent Practice - 15 minutes
- Assign an independent spelling activity using Metaverse (e.g. creating sentences using the spelling words, creating a virtual spelling storybook, etc.)
- Allow students to work independently or in small groups if necessary

Step 6: Closure - 5 minutes
- Wrap up the lesson by reviewing the spelling pattern or words taught
- Ask students for feedback on the Metaverse activities used in the lesson

Step 7: Extension - (optional)

- Encourage students to continue practicing their spelling using Metaverse by assigning additional activities or providing resources for them to create their own spelling lessons.

Overall, this lesson plan provides a visual representation of how Metaverse can be incorporated into a spelling lesson to make the learning experience more interactive and engaging for students.

Since, Metaverse has the potential to enrich and transform education and lead to increased learning outcomes and enhanced students'engagement and motivation, despite the fact that the use of metaverse in education is in its infancy, there is a need for more research and experiments to be carried out in all educational levels and populations to assess its impact and improve its effectiveness.

Some Language Learning Metaverse platforms :

Engage - training, collaboration, events, and marketing

Immerse - learn and practice new languages

Mondly - language learning platform that currently supports 30 languages

AltspaceVR - AltspaceVR is also home to VR Language Exchange, an organization dedicated to facilitating cultural exchange through virtual reality platforms. Their weekly meetings welcome “all languages and all cultures,” providing a great way to explore a lot of different things.


Take One
BIG STORY OF THE DAY
METAVERSE

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Thank You