

Introducing eXtended Reality(XR)

1. Give definitions of XR to students.

- What is eXtended Reality(XR)?
 - XR is an umbrella term describing immersive technologies that can merge the physical and virtual worlds.
 - It includes all the immersive technologies: augmented reality (AR), virtual reality (VR), and mixed reality (MR).
- What is Virtual Reality(VR)?
 - VR is computer-simulated, real-time interactive graphics that allow the user to be immersed in the simulated world and to directly interact with the world.
 - VR is part of Consumer-Facing Technology.
 - Introduce the VR with related video in PowerPoint slide: <https://www.youtube.com/watch?v=dOnPAPJNM-0>
- What is Augmented Reality(AR)?
 - A real-time direct or indirect view of a physical real-world environment that has been enhanced/augmented by adding virtual computer-generated information to it.
 - AR is both interactive and registered in 3D as well as combines real and virtual objects.
 - AR aims at simplifying the user's life by bringing virtual information not only to his immediate surroundings, but also to any indirect view of the real-world environment.
- What is Metaverse?
 - The metaverse is defined as an extensive online world where people interact via digital avatars.
 - The metaverse is a collective virtual shared space, including the sum of all virtual worlds, augmented reality, and the Internet.
 - The types of metaverse platforms: Roblox, Epic, Genies, Zepeto, and others.
 - People can do almost anything in the metaverse: go shopping, attend school, and participate in work meetings.
 - The metaverse accelerates the user's digital second life and spending money on outfits and objects for their digital avatars.
- VR vs. AR vs. Metaverse
 - While Virtual Reality (VR) technology completely immerses users in a synthetic world without seeing the real world, AR technology augments the sense of reality by imposing virtual objects and cues upon the real world in real-time.
 - While Virtual Reality (VR) technology provide virtual experience to users by a VR headset, Metaverse becomes

a new e-commerce channel and enables users interaction through their avatars using the internet.

2. Distribute links of articles addressing some examples of VR, AR, and Metaverse in fashion & retail to students. Let them distinguish VR, AR, and Metaverse.
 - <https://www.fibre2fashion.com/industry-article/8777/is-there-any-future-for-vr-in-fashion-checking-the-latest-vr-apps-virtual-shopping-and-more>
 - <https://www.xcubelabs.com/blog/10-applications-of-ar-vr-that-can-transform-your-retail-sales-completely-find-out-how/>
 - <https://www.forbes.com/sites/cognitiveworld/2019/10/01/retailers-have-a-lot-to-gain-from-ar-and-vr/?sh=1a956e147a1c>
 - <https://www.mckinsey.com/industries/retail/our-insights/how-the-fashion-industry-can-get-into-a-metaverse-mindset>
 - <https://www.insiderintelligence.com/content/retail-metaverse>
 - <https://www.bloomberg.com/news/articles/2021-12-09/luxury-fashion-brands-are-already-making-millions-in-the-metaverse>
 - Watch the "Gucci Town" video:
<https://www.youtube.com/watch?v=eZJFu15N3w0>
3. After reading those articles, students will have a group discussion (Group Discussion #1).
 - Q1. Discuss differences between VR, AR, and Metaverse.
 - Q2. What are the advantages and challenges of XR in the retail/fashion industry? (At least three)
 - Q3. Think about the future of XR. Do you think VR, AR or Metaverse will continue to grow in the future? Why do you think so?

Group discussion is suggested for the instructor but if you do not have enough students for group discussion or if you are teaching in an online class environment, please use the method below.

1. Utilize the discussion board in BlackBoard.
2. Give students the same article before they start the discussion.
3. Ask them the same questions.
4. Here are the BlackBoard Discussion instructions:
Students must respond to at least 2 other students after they write their initial post.
 - Initial Post: Based on the discussion questions, make One post on Blackboard answering all the questions.
 - Responds to other students: Read the postings submitted by other classmates and respond to TWO posts from classmates. Student's responses to classmates must be substantive and add value to the conversation.

Competencies: Critical decision-making, Collaboration and teamwork