Unit 12 Formative Activity

Formative Activity - The Future of Data Visualisation - Virtual Reality (VR) and Augmented Reality (AR)

This activity focuses on the future of data visualisation using AR/VR technologies. With its immersive and collaborative capabilities, AR/VR offers a new approach to data visualisation. Take the time to review the following articles/blogs as the activity for this week. Write a reflective entry (200 - 300 Words) on how you can apply these technologies in your current or future employment.

Articles

Nichols, G. (2019) **Data visualization via VR and AR: How we'll interact with tomorrow's data**.

Kurbatov, V. (2017) **Human factor in virtual reality data visualization**.

Dalton, J. (2016) **5 Reasons to Use Virtual Reality for Data Visualisation**.

Learning Outcomes

- Critically evaluate and apply data visualisation grammar and idioms to the whole of the visualisation process and the resulting presentations.
- Critically evaluate the capabilities of different visualisation tools and programming languages (proprietary and/or open source) to support the discovery and display of critical and valuable answers in different types of datasets.

Reflective Entry: The Future of Data Visualisation with AR/VR

As data continues to grow in complexity and volume, traditional 2D charts and dashboards can sometimes fall short in helping users gain deep insights. AR and VR technologies offer an innovative path forward by transforming how we interact with and understand data. After reviewing the articles by Nichols (2019), Kurbatov (2017), and Dalton (2016), I can clearly see how these technologies can play a significant role in my future career, especially in roles involving data analytics, project management, or stakeholder engagement.

In particular, VR can be a powerful tool for presenting multidimensional datasets in immersive environments. For instance, instead of flipping through slides or spreadsheets during presentations, I could guide stakeholders through a virtual space where data points are visualised as interactive 3D models. This could help in identifying patterns, trends, or anomalies more intuitively.

Meanwhile, AR holds promise in enhancing real-time decision-making. In a project management setting, AR could overlay live data visualisations onto physical project sites, allowing for immediate feedback and better situational awareness. It would also support collaboration by enabling geographically distributed teams to interact with the same data models in a shared space, boosting productivity and understanding.

Ultimately, AR/VR could redefine how data is consumed and acted upon—making it not just about seeing the numbers, but truly experiencing them.

References

Dalton, J. (2016) *5 Reasons to Use Virtual Reality for Data Visualisation*. Available at: https://medium.com/data-science/5-reasons-to-use-virtual-reality-for-data-visualisation-86cd37d5c1ee (Accessed: 18 April 2025).

Kurbatov, V. (2017) *Human factor in virtual reality data visualization*. Available at: https://medium.com/inborn-experience/vr-dataviz-41ef0dc879c (Accessed: 18 April 2025).

Nichols, G. (2019) *Data visualization via VR and AR: How we'll interact with tomorrow's data*. Available at: https://www.zdnet.com/article/data-visualization-via-vr-and-ar-how-well-interact-with-tomorrows-data/ (Accessed: 18 April 2025).