KEY LIME MASTERCLASS
EMTECH SERIES

LESSON 1

Why your VR team needs to nail it from the get-go:

SELF-REPRESENTATION + SCALE

Key Takeaways

6 ways to nail it from the get-go Self-Representation + Scale

1. **Think about what the self-representation needs to convey and how it will affect task completion**
   e.g. does it need to convey how to hold objects or just show where your hands are?

2. **Self-avatars can be complex, consider the tradeoffs of simpler versions**
   e.g. do you need to have a full body or will just the upper body work?

3. **Evaluate if the self-avatar is fulfilling its purpose**
   e.g. use task performance and usability measurements

4. **Consider the importance of scale in the experience**
   e.g. is accurate scale perception important to the task? Real Estate vs. Fitness Games

5. **Use as many visual cues as possible (They do not need to be high definition)**
   e.g. use shadows to effectively convey positioning

6. **Perceptually evaluate the environment scale**
   e.g. use affordance judgment comparisons if possible

Resources

- Defining Reality: A Look Into What XR Experience is Best for You
- Getting Started with Training in VR
- Incorporating XR Into Business Using Foresight Methodologies
- Social XR- How to Stay Connected in Times of Separation

References

[1] Lougiakis, C., Katifori, A., Roussou, M., & Ioannidis, I. P. (2020, March). Effects of Virtual Hand Representation on Interaction and Embodiment in HMD-based Virtual Environments Using Controllers. In 2020 IEEE Conference on Virtual Reality and 3D User Interfaces (VR) (pp. 510-518). IEEE.

[2] Banakou, D., Groten, R., & Slater, M. (2013). Illusory ownership of a virtual child body causes overestimation of object sizes and implicit attitude changes. Proceedings of the National Academy of Sciences, 110(31), 12846-12851.

[3] Lin, Q., Rieser, J. J., & Bodenheimer, B. (2013, August). Stepping off a ledge in an HMD-based immersive virtual environment. In Proceedings of the ACM symposium on applied perception (pp. 107-110).

[4] Bhargava, A., Lucaites, K. M., Hartman, L. S., Solini, H., Bertrand, J. W., Robb, A. C., ... & Babu, S. V. (2020). Revisiting affordance perception in contemporary virtual reality. Virtual Reality, 1-12.

[5] Bhargava, A., Solini, H., Lucaites, K., Bertrand, J. W., Robb, A., Pagano, C. C., & Babu, S. V. (2020, March). Comparative Evaluation of Viewing and Self-Representation on Passability Affordances to a Realistic Sliding Doorway in Real and Immersive Virtual Environments. In 2020 IEEE Conference on Virtual Reality and 3D User Interfaces (VR) (pp. 519-528). IEEE.

Next Masterclass in June

Be on the lookout for an email with more event details next week!

Why your VR team needs to nail it from the get-go:
COGNITIVE LOAD + USER ACCLIMATION

Have questions for our experts?

Ask at emtech@keylimeinteractive.com