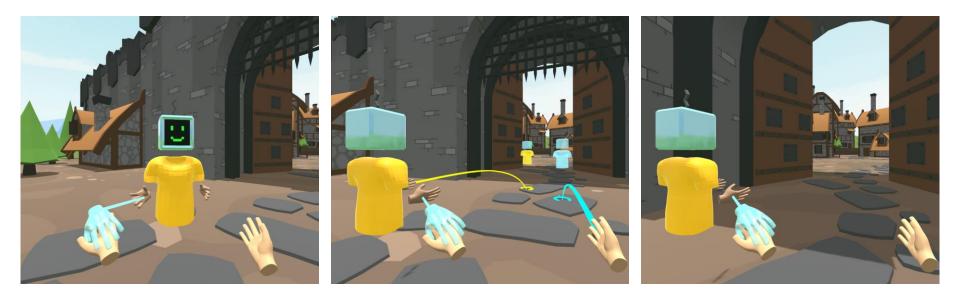
Holding Hands for Short-Term Group Navigation in Social Virtual Reality



To the Extended Abstract

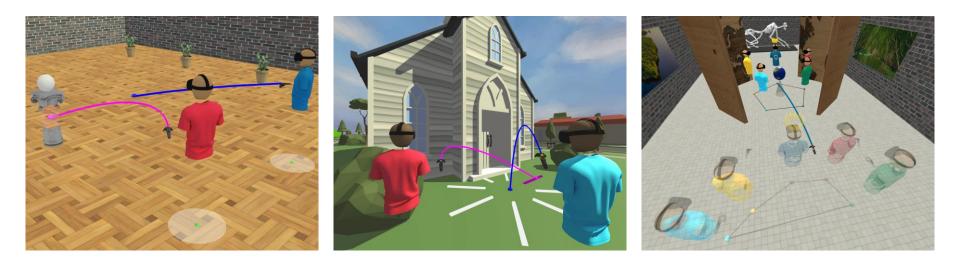
Tim Weissker, Pauline Bimberg, Ankith Kodanda, Bernd Froehlich





Virtual Reality and Visualization Research Group

What is Group Navigation?

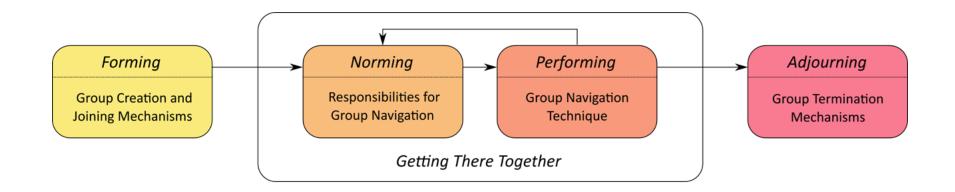


"Getting There Together"

2 Weissker, T., Bimberg, P., & Froehlich, B. (2021, March). An Overview of Group Navigation in Multi-User Virtual Reality. In 2021 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW) (pp. 363-369). IEEE.



What is Group Navigation?



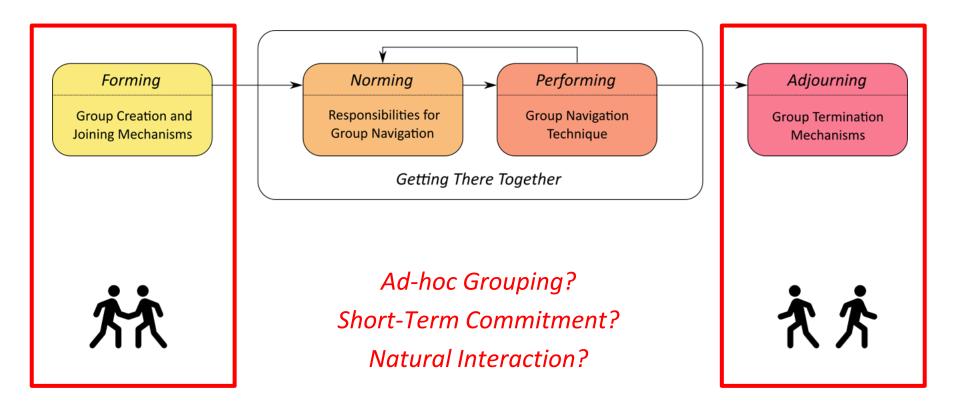


Weissker, T., Bimberg, P., & Froehlich, B. (2020). Getting There Together: Group Navigation in Distributed Virtual Environments. IEEE Transactions on Visualization and Computer Graphics, 26(5), 1860-1870. Tuckman, B. W. (1965). Developmental sequence in small groups. *Psychological bulletin*, 63(6), 384.

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What is Group Navigation?



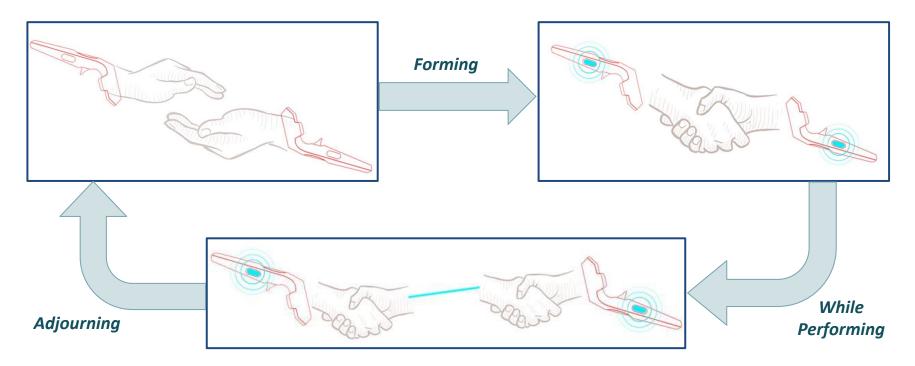
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4



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Technique Design



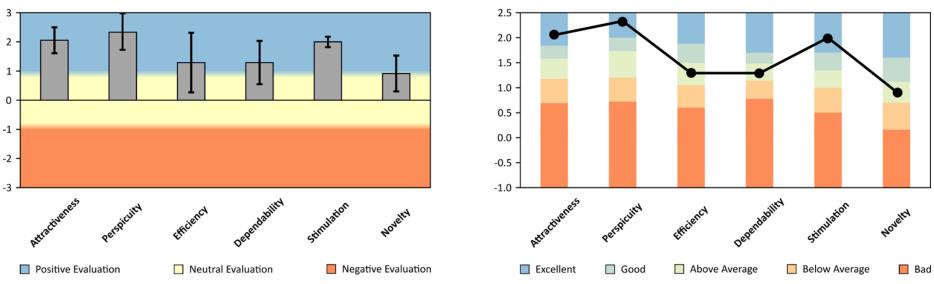


Video

https://www.tim-weissker.de/videos/2022-hand-holding.mp4



User Experience Questionnaire



Average Scores with 95% Confidence Intervals

7 https://www.ueq-online.org/

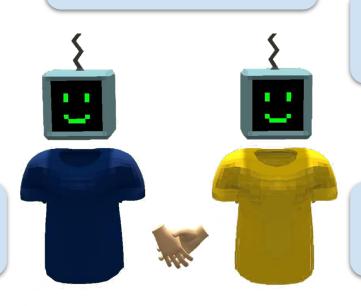
N = 6

Benchmark Comparison of Average Scores



User Feedback

"I like the **real world concept** in the VR world."



"I like that it requires something very human [...] anything that makes us **more connected** to the real world in VR is a positive."

"Holding the hand in a way I can feel the **intimacy**, it reflects what we have in the **real world**."



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"Overall I like the technique. It requires something **social** like holding hands to initiate a group interaction."

"This could be used in **VR games** to follow someone."

Conclusion and Future Work

- Attractive, perspicuous, and stimulating technique
- Suitable for closer friends
- Constant button press effortful but explicit awareness cue
 → especially suitable for short-term groupings
- Future work: techniques for larger groups, alternatives for different social settings



To the

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