



STORY AUTHORIZING IN AUGMENTED REALITY

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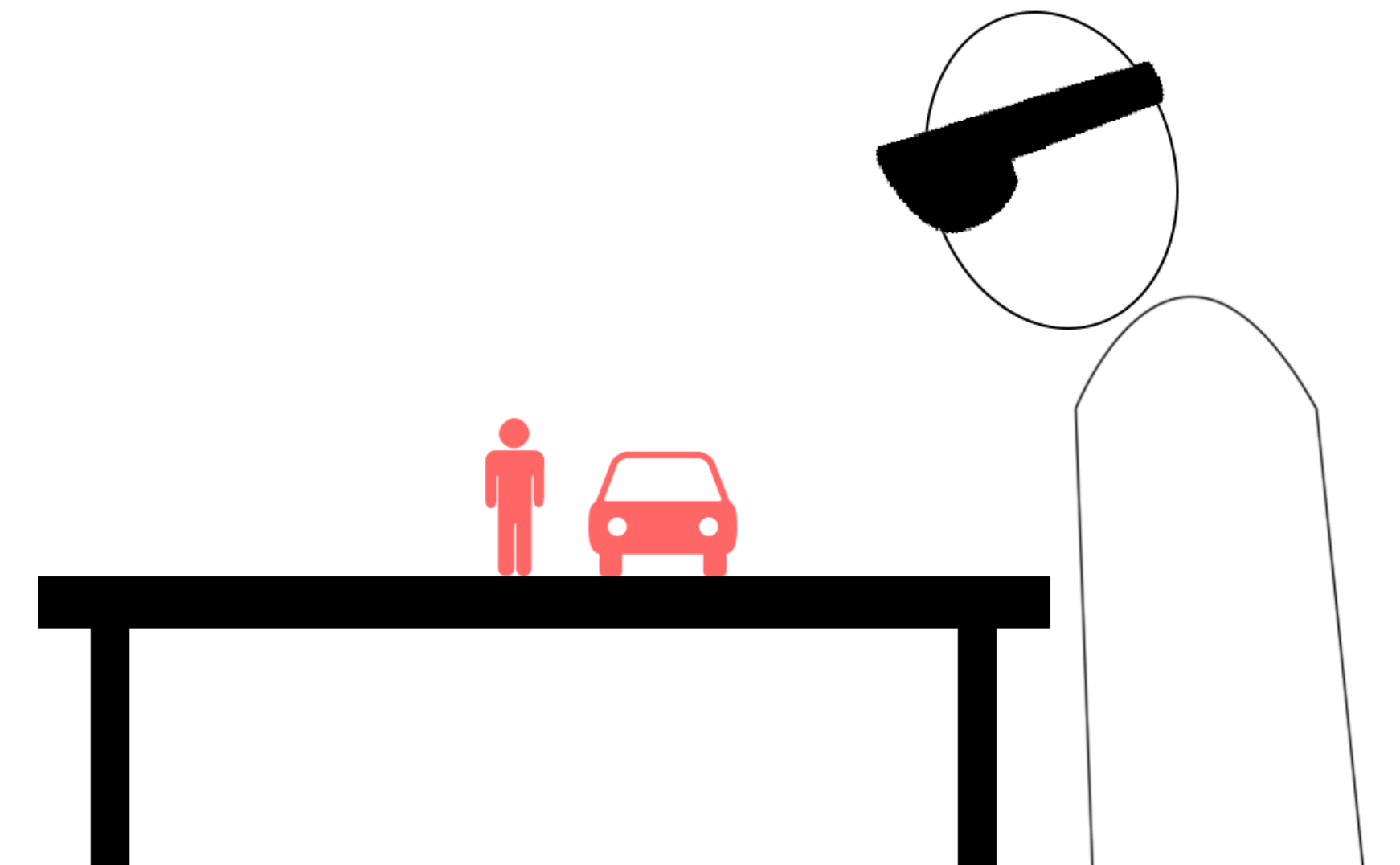


CREATING A STORY

USING TECHNOLOGY

AUGMENTED REALITY (AR)

ADDS VIRTUAL ELEMENTS TO THE REAL WORLD



SOURCE: [HTTPS://MEDIUM.COM/SELERIO/INTRODUCING-SELERIO-SDK-FOR-AR-EF5B84DD86ED](https://medium.com/selerio/introducing-selerio-sdk-for-ar-ef5b84dd86ed)

AUGMENTED REALITY (AR)

ADDS VIRTUAL ELEMENTS TO THE REAL WORLD

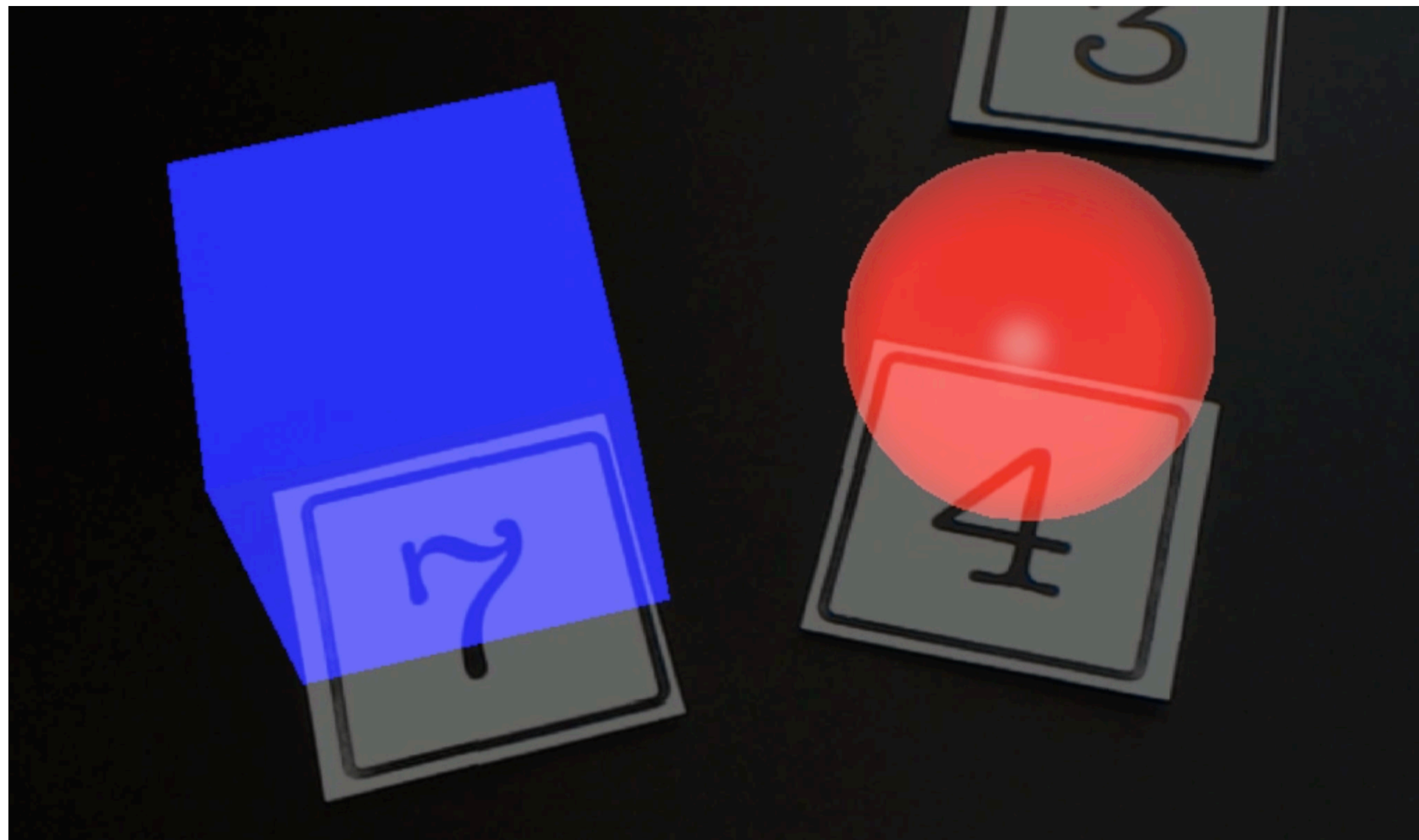


REAL 3D VISUALISATION
HANDS-ON INTERACTION

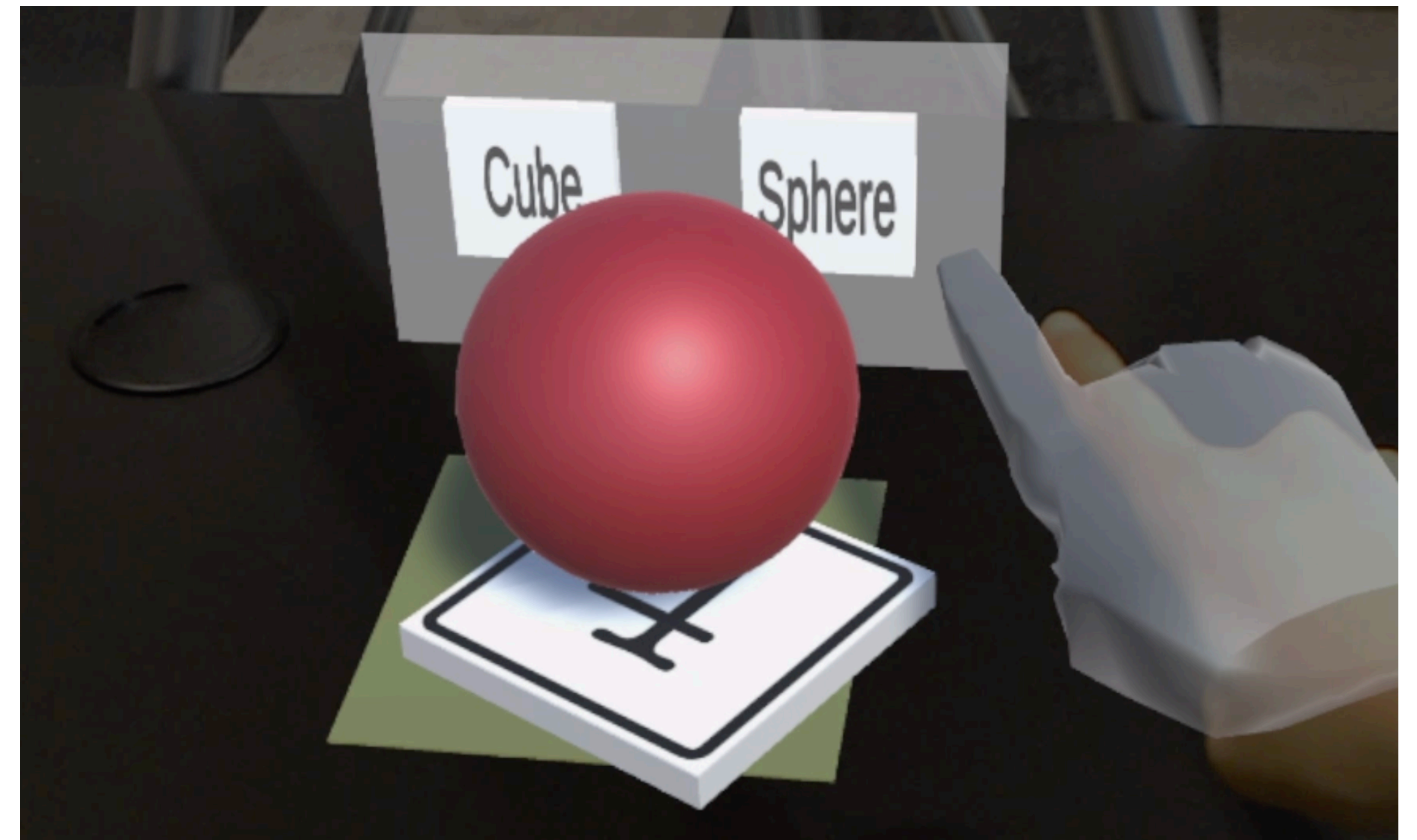
**HOW CAN AUGMENTED REALITY
BE USED FOR STORY AUTHORING?**

AUGMENTED REALITY INTERFACES

TANGIBLE

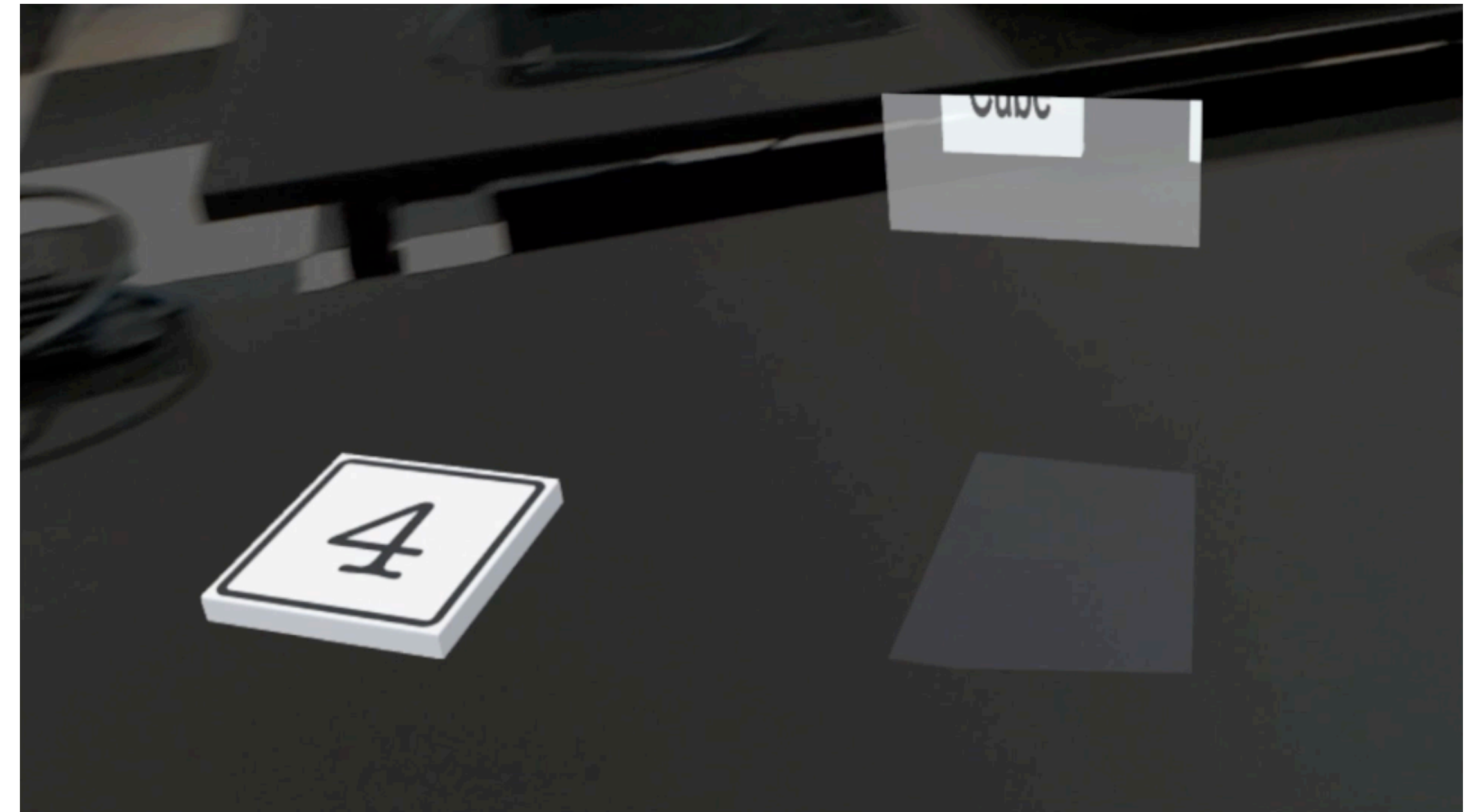


TOUCH-LESS



AR INTERFACES

PROTOTYPES



COMBINING INTERFACE TYPES

TANGIBLE (MARKERS)

- **Spatial actions**

Example: placing an object in a scene

- **Variable recurring actions**

Example: changing a property

TOUCH-LESS (HAND INTERACTION)

- **Selection actions**

Example: selecting an item from a menu

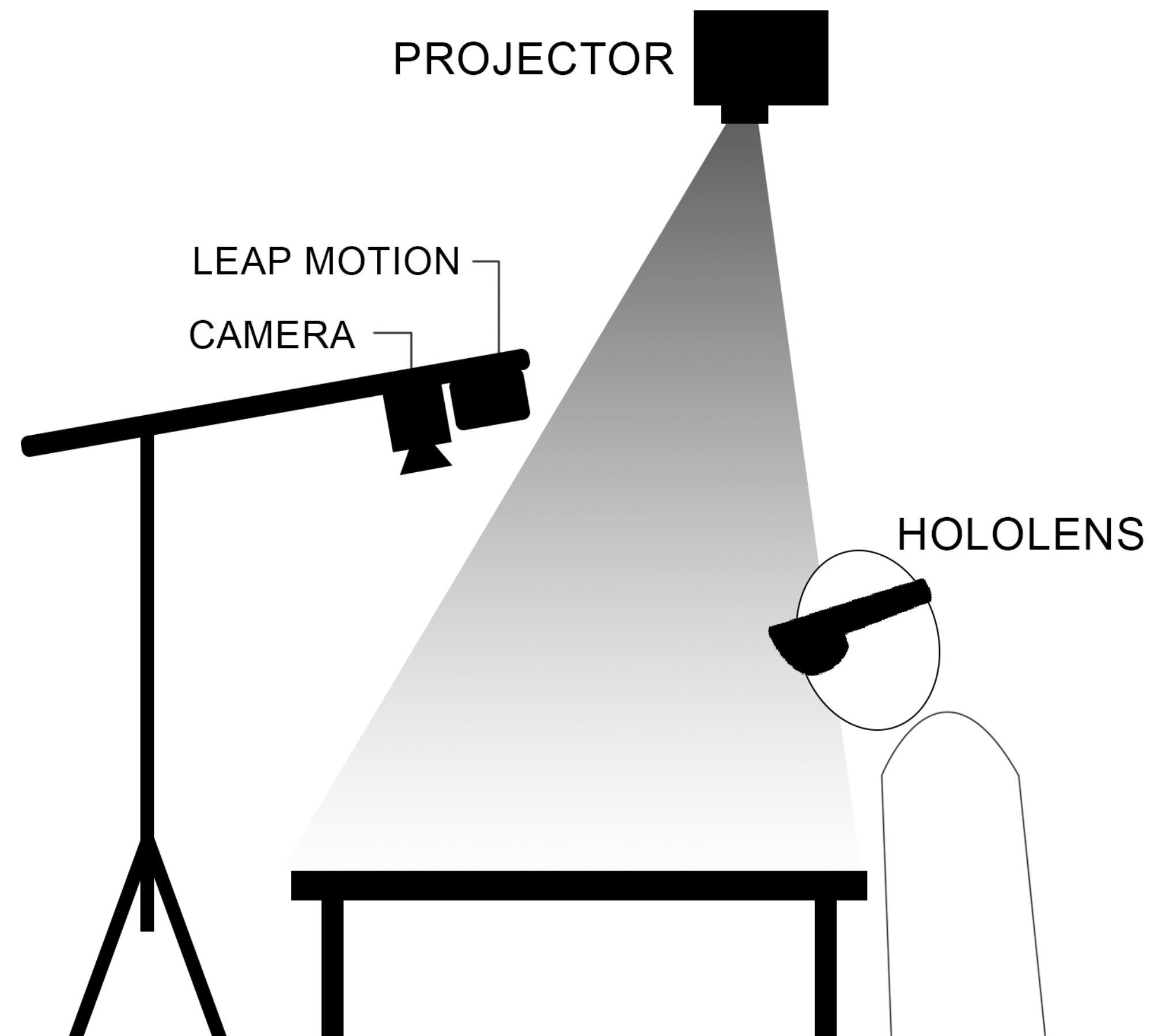
- **General operations**

Example: undo and redo

CONCEPT APPLICATION: STORY ARTIST

STORY ARTIST

SETUP



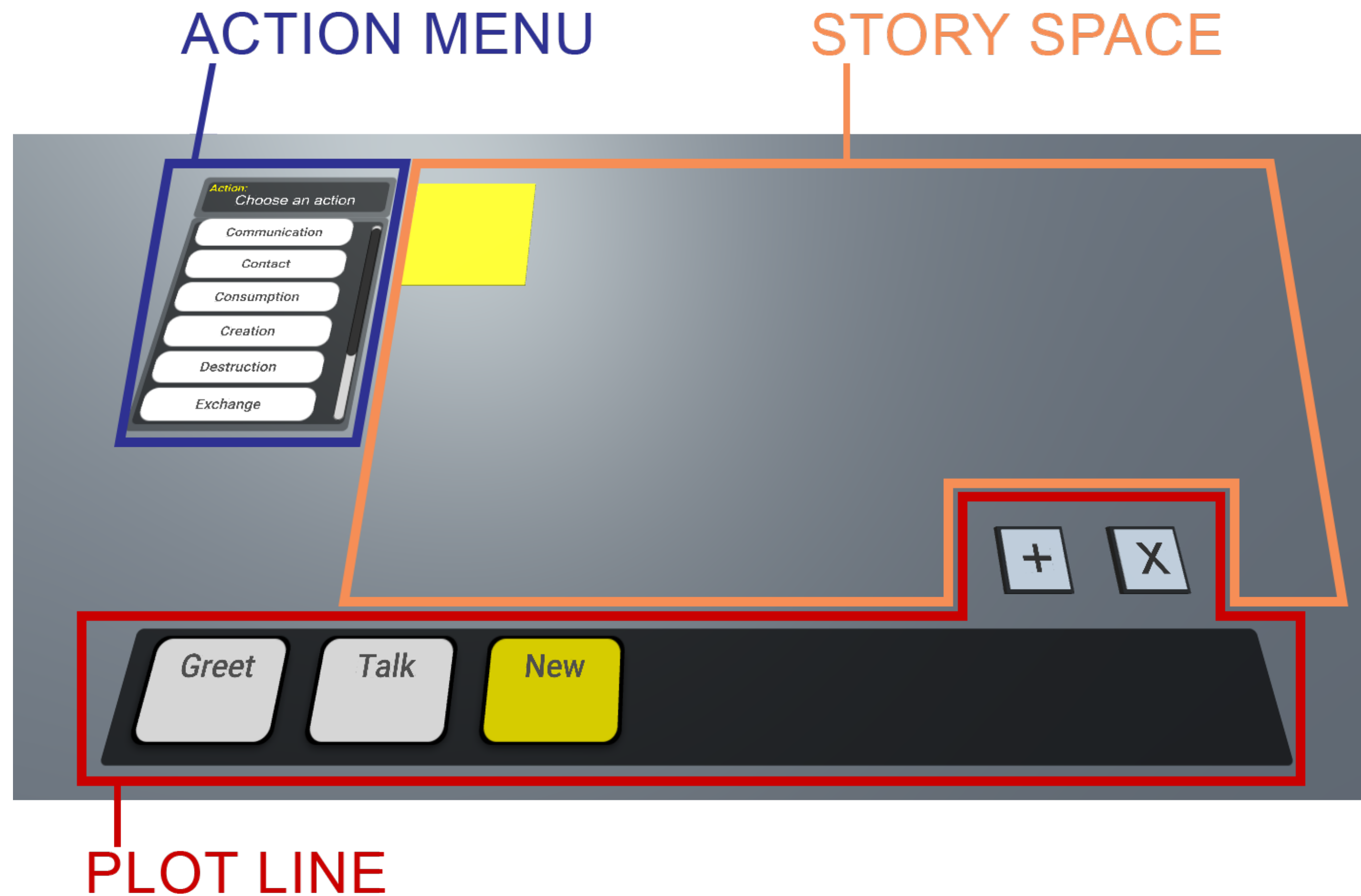
STORY ARTIST

INTERFACE



STORY ARTIST

INTERFACE



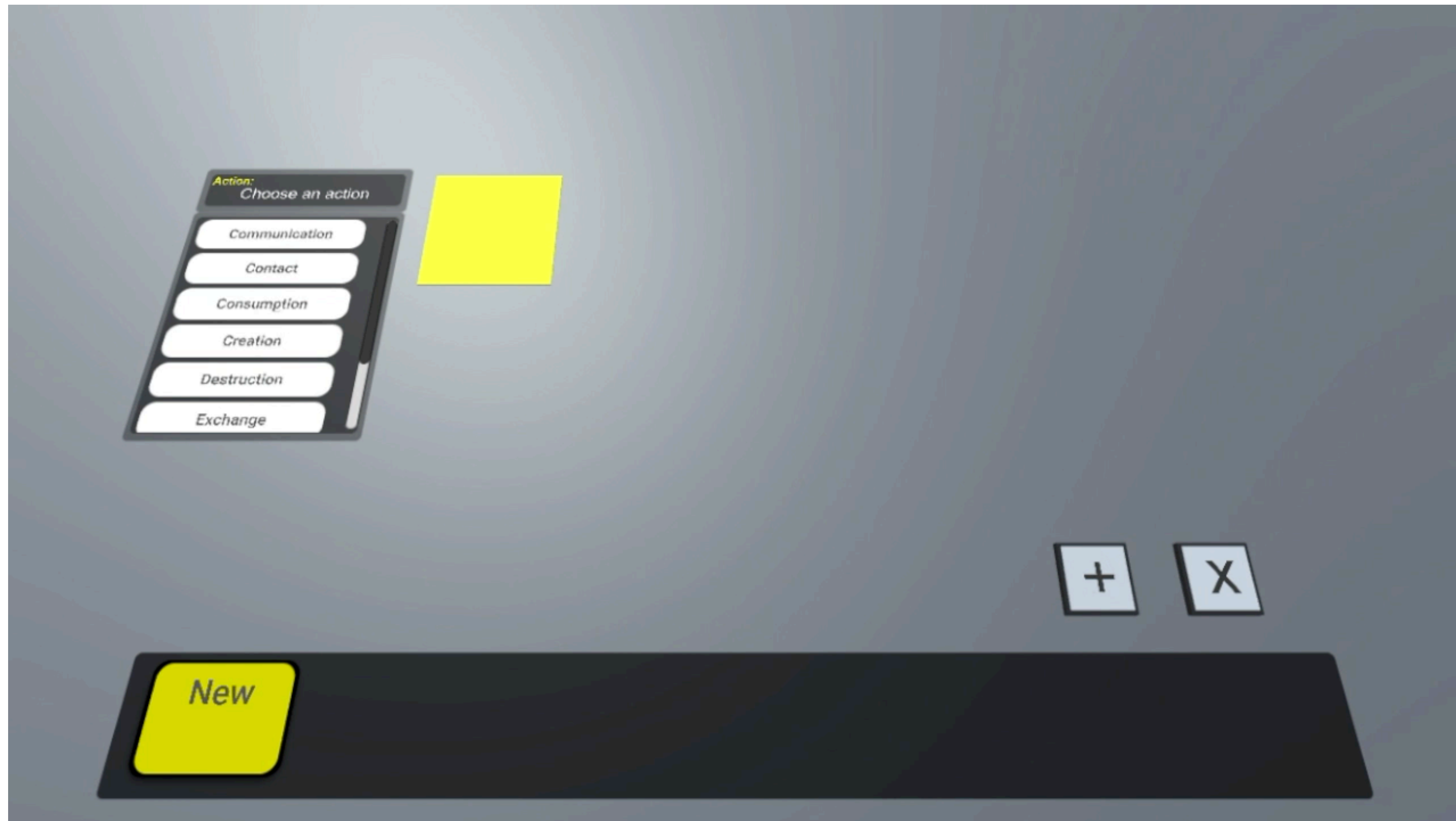
STORY ARTIST

IN ACTION



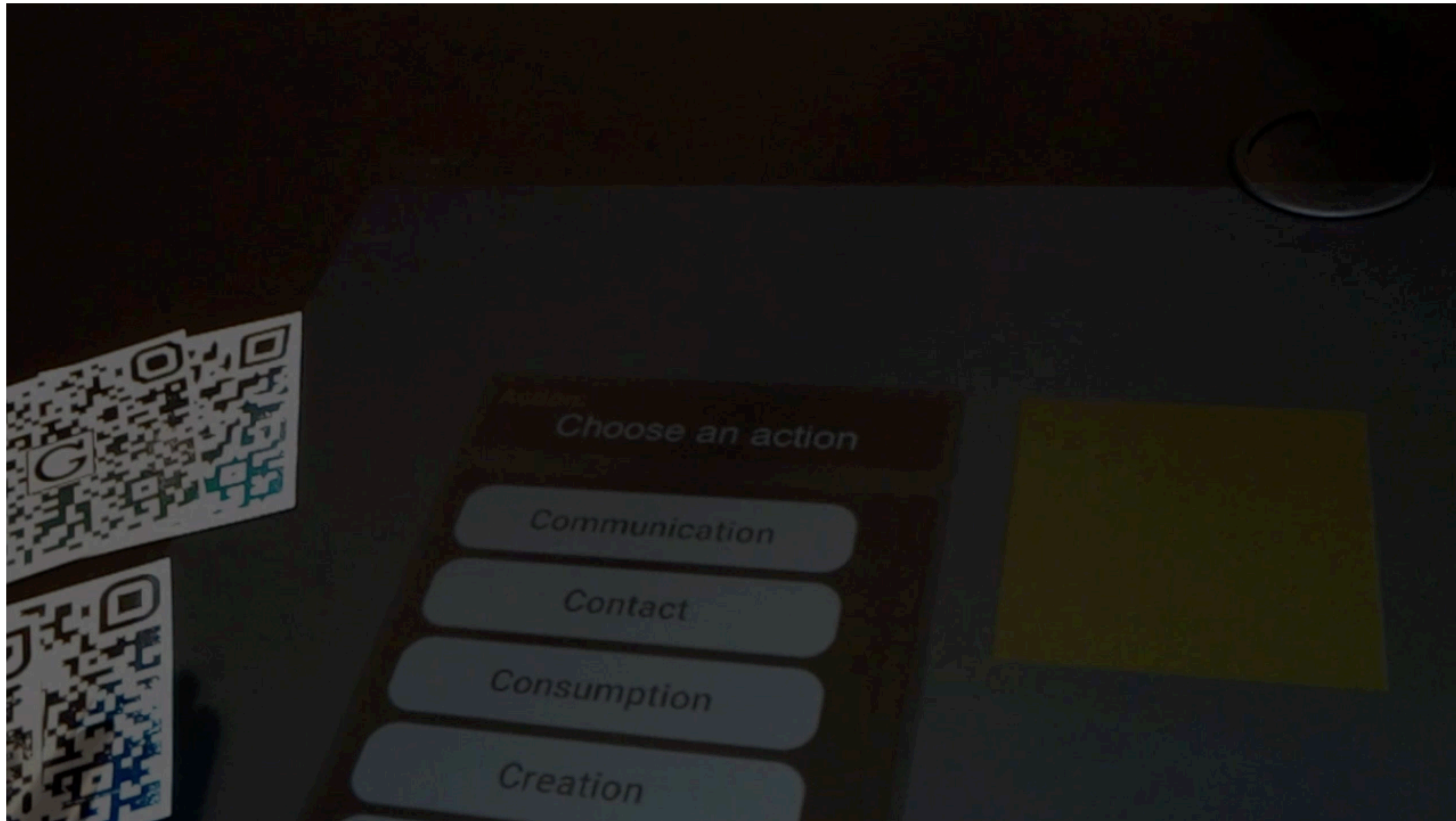
STORY ARTIST

IN ACTION



STORY ARTIST

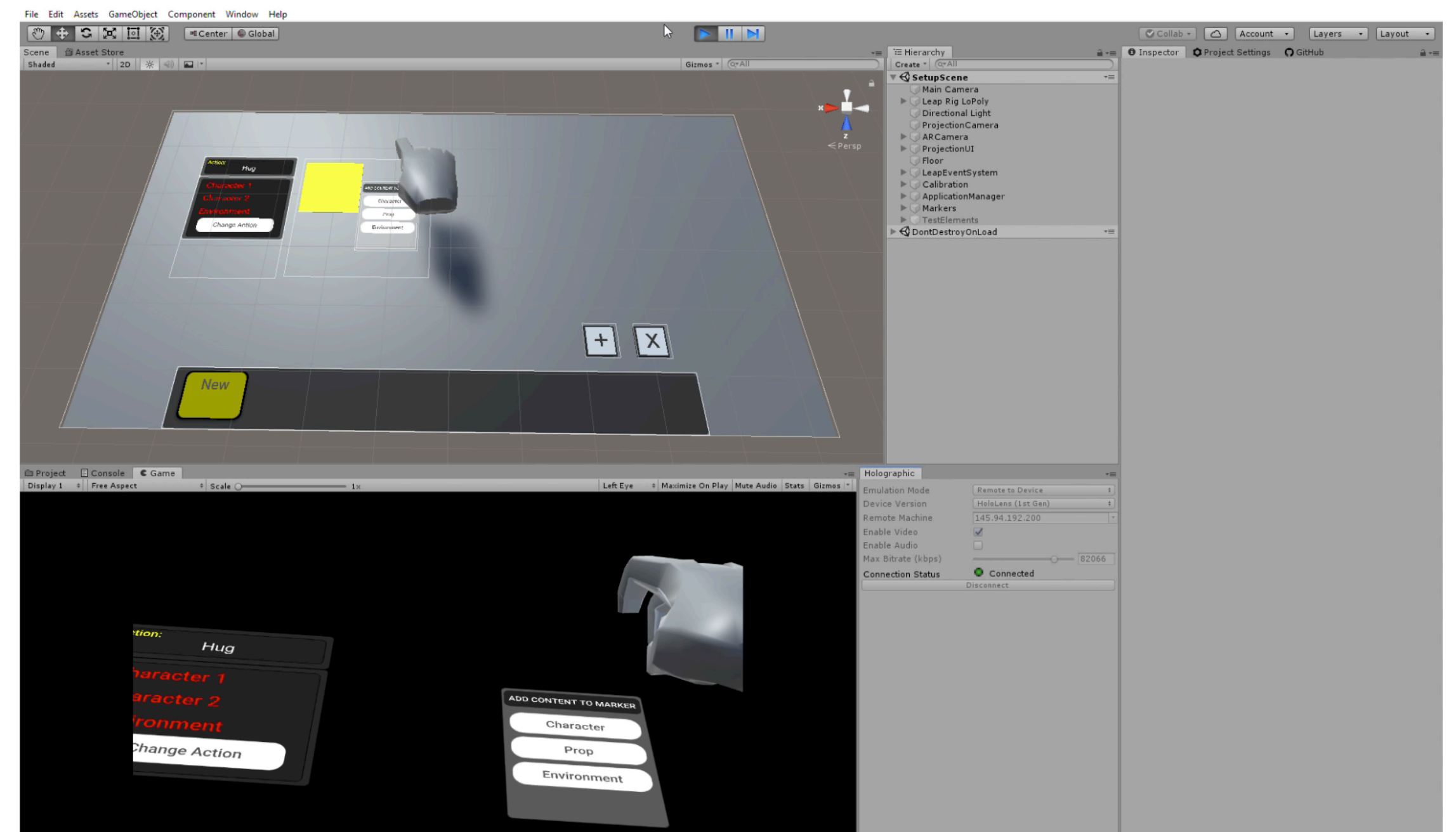
IN ACTION



EVALUATION

USER STUDY

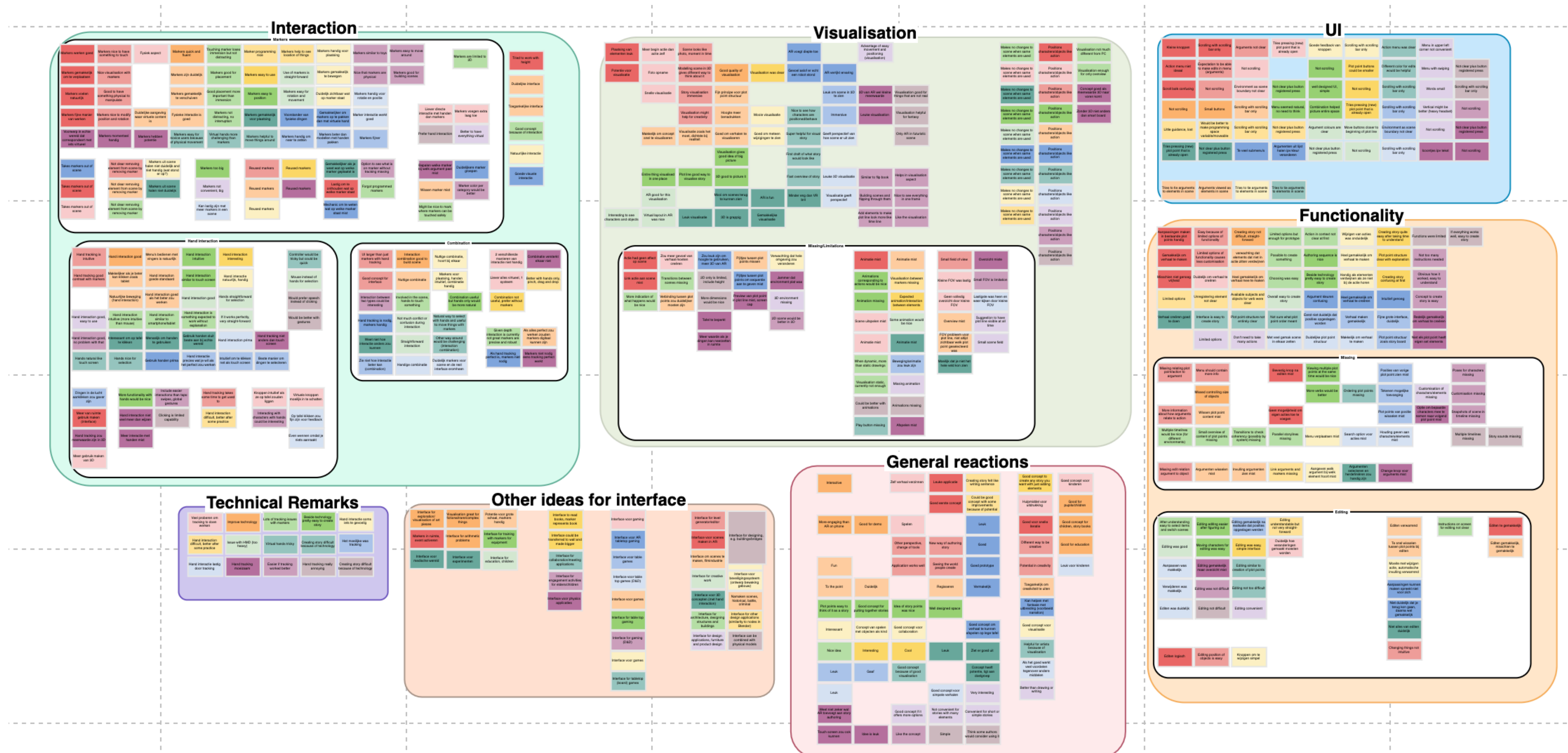
- 20 participants, individual sessions
- Structure:
 - Tutorial
 - Interaction with application
 - Interview
 - Questionnaire



RESULTS

QUALITATIVE

- Affinity diagram
- Interview answers and observations from videos
- 580 notes
- 7 clusters

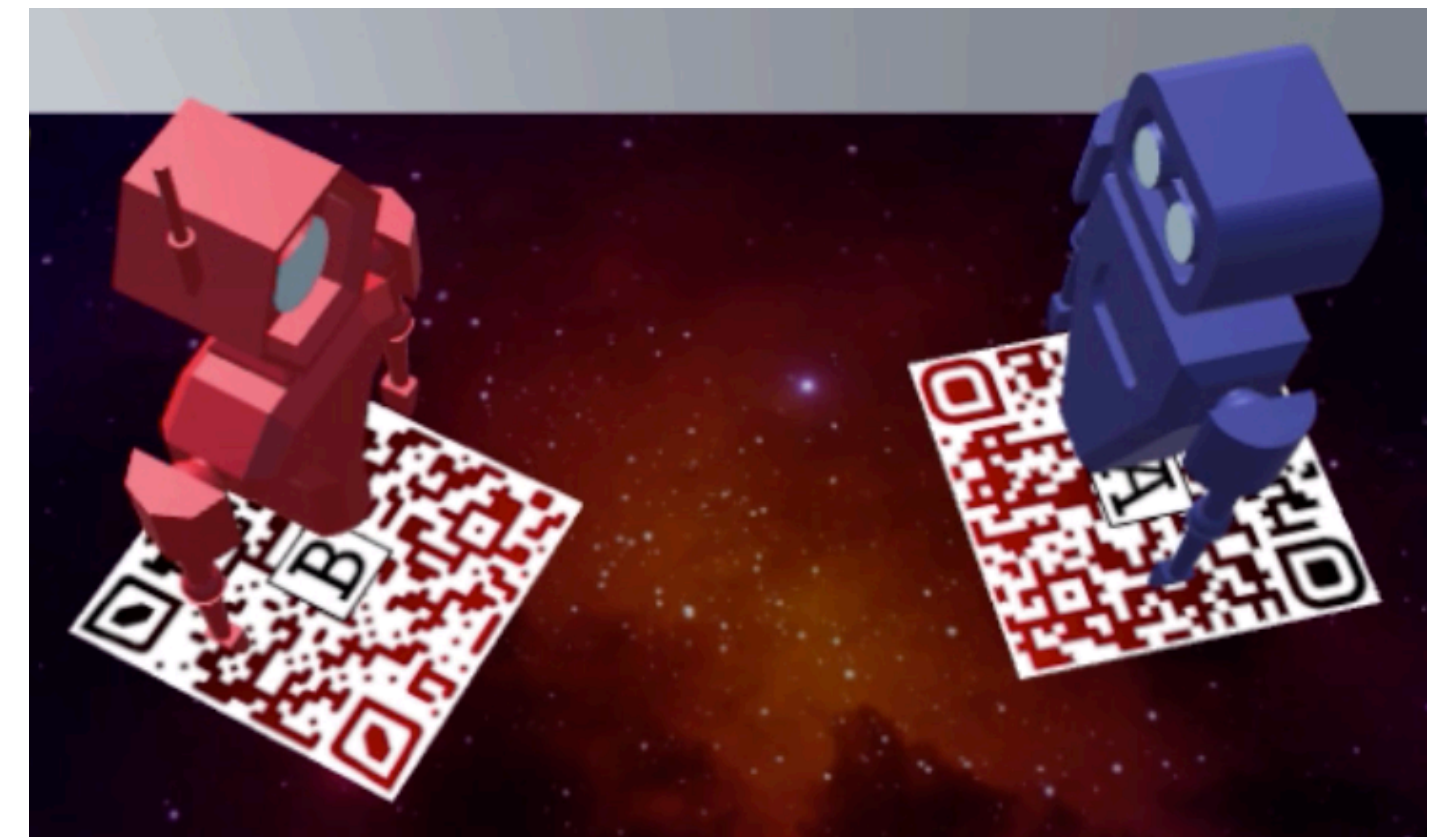


RESULTS

QUALITATIVE

Interaction

- **Markers:**
 - ⦿ Advantages noticed by many: *“easy to position and rotate”*
 - ⦿ Limitations: forgetting programmed content, removing elements
- **Hand interaction:**
 - ⦿ Described as intuitive, natural and easy to use
 - ⦿ Limitation: simple, no use of 3D
- **Majority found combination useful**

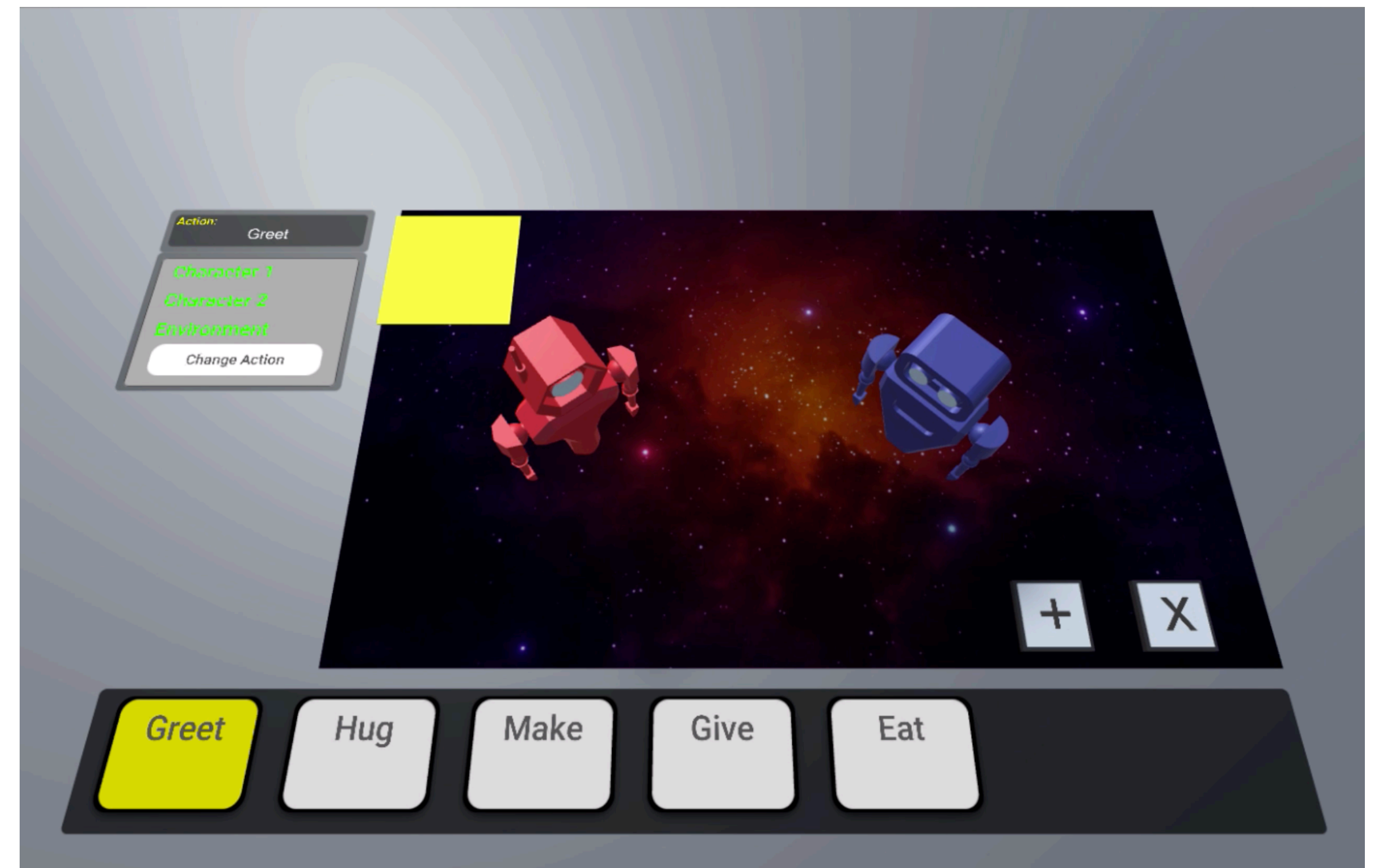


RESULTS

QUALITATIVE

Visualisation

- Mostly positive opinions
- Not everyone used scene as intended
- Limitations: missing animation,
2D environment



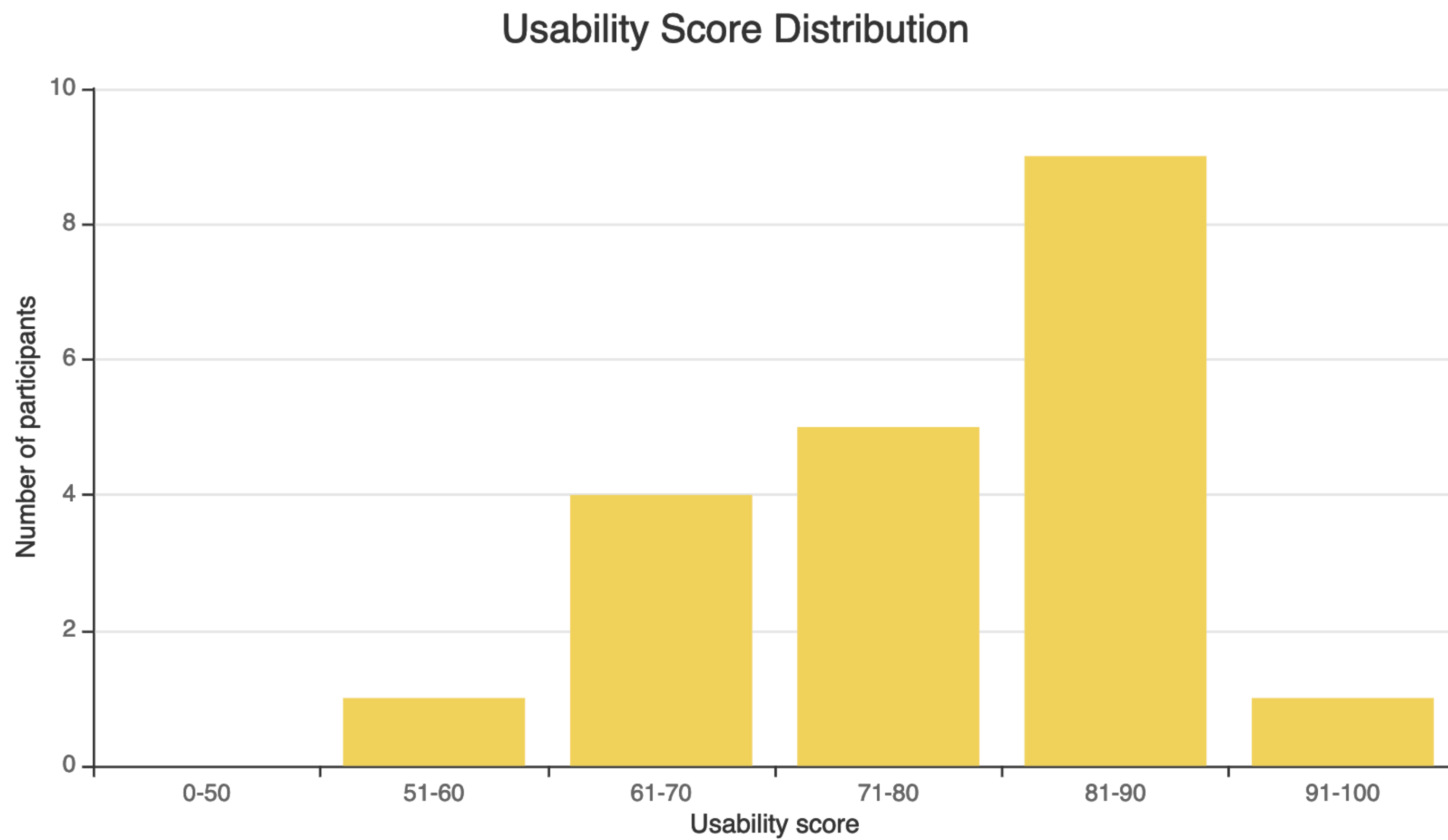
RESULTS

QUANTITATIVE

- **System Usability Scale**
- **Usability score 0 - 100 for each participant**
- **Average: 78.6**

RESULTS

QUANTITATIVE



CONCLUSION

- **Combination of tangible and touch-less interface is favourable**
- **Interactive 3D visualisation improves the story authoring experience**
- **Considerable potential in using AR for story authoring**

CONCLUSION

FUTURE WORK

- **Other interaction techniques**
 - ⦿ **Different hand interaction**
 - ⦿ **Speech as input**
- **Improvements to Story ARTist**
 - ⦿ **Animation, other suggestions**
 - ⦿ **Automation**



SOURCE: [HTTPS://WWW.FASTCOMPANY.COM/3054771/MICROSOFT-IS-READY-TO-SHARE-HOLOLENS-WITH-THE-CURIOUS](https://www.fastcompany.com/3054771/microsoft-is-ready-to-share-hololens-with-the-curious)



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