

21st July 2021

# eLmL 2021

The Thirteenth International Conference on Mobile,  
Hybrid, and On-line Learning  
eLmL 2021



DesignAR: Augmented Reality Designing  
Prototype. Towards a Media Semantic  
Taxonomy for Art Educational  
Implementation

[Link to Publication](#) Thinkmind Digital Library





**Regina Maria Bäck**

Katholische Universität Eichstätt-Ingolstadt  
Eichstätt, 85072, Germany  
reginabaeck@posteo.de

**Rainer Wenrich**

Katholische Universität Eichstätt-Ingolstadt  
Eichstätt, 85072, Germany  
Rainer.Wenrich@ku.de

**Birgit Dorner**

Katholische Stiftungshochschule München  
München, 81667, Germany  
Birgit-Dorner@ksh-m.de



**Hanns  
Seidel  
Stiftung**



Katholische  
Stiftungshochschule  
München  
University of Applied Sciences



KATHOLISCHE UNIVERSITÄT  
EICHSTÄTT-INGOLSTADT

## Features of DesignAR:

1. Color Picker/RGB/Transparency/Dark/Bright.
2. Drawing tool: related to device position and drawing on surface.
3. Brush styles: oil color/text marker/curly.
4. Inserting Objects: cube/sphere/cylinder/text editor.
  - 4.1. Texture for objects: wood/plaster/gold/silver/transparent
5. 2D-Picture Stamp tool, access to picture gallery of device
  - 5.1. Group objects and navigate in groups.
  - 5.2. Ungroup objects.
6. UI mode vs. camera mode.

- DesignAR-Video:
- 3D-Interpretation of 2D-Painting & installation (Atelierhaus Dachauerstr. e.V., Atelier Uli Zwerenz)
- <https://www.youtube.com/watch?v=UMCpz3ix5Yc&t=0s>



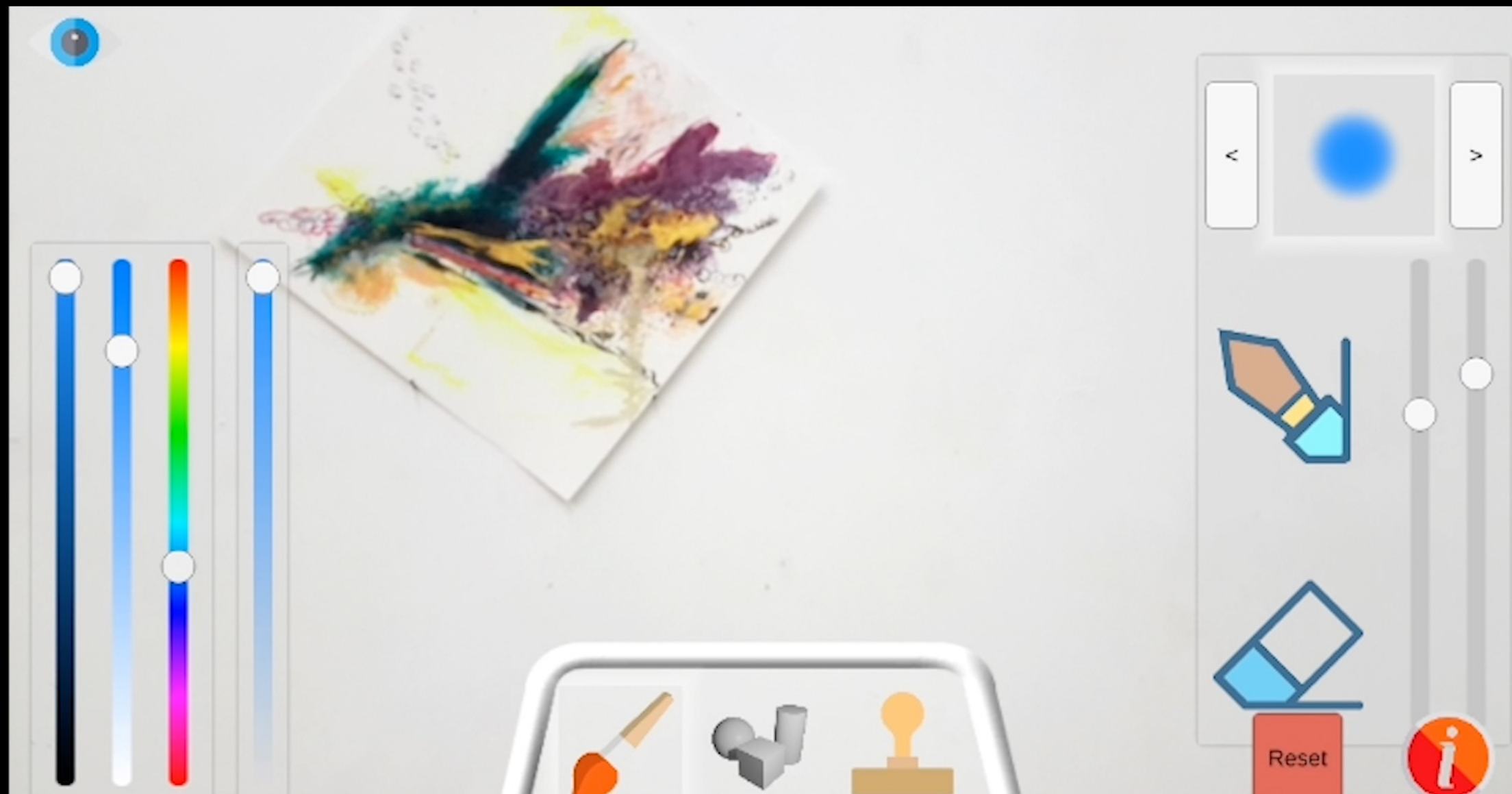
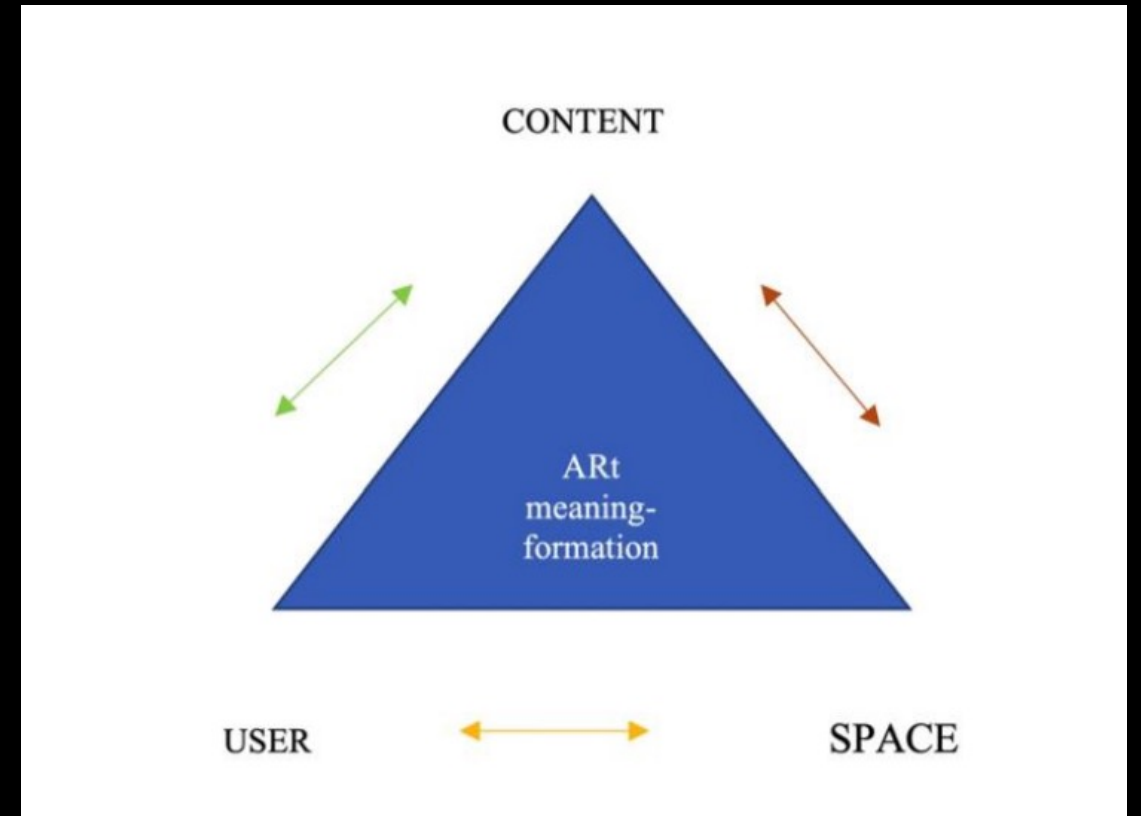


TABLE I. TAXONOMY OF AR-RELATED ARTWORK

<i>USER</i>	<i>CONTENT</i>	<i>SPACE</i>
<b>Role</b> Observer Creator Choreographer Embodiment <b>Combination of roles</b> <b>User Consent</b> vs. <b>Intervention</b>	<b>2D/3D</b>  <b>Moving/ static</b> <b>Audio/Tactile</b>  <b>Motif</b>	<b>Flexible vs. Site-specific</b> vs. <b>User-centered</b>  <b>Private/Public</b> <b>Curated vs. intervention</b>
<b><i>SOCIALAR</i></b>		
<b>Singular vs collaborative artwork</b> <b>Sharing &amp; Remix</b> - sharing of individual artwork - shared objects via database (Adobe Aereo)		

# Taxonomy AR-related Artwork



**SOCIAL AR**  
Singular vs Collaborative,  
View only vs Sharing and Remix

# Human Cell Pixel Kernel

- Imagine floating on a petri dish..
- with other cells of hybrid quality

**Novel ways of AR meaning formation?**

Deixis, Situatedness, Imaginatory Embodiment



„HOW MY DOGS ARE JUMPING OUT HERE...“(App:DesignAR)  
versus: „I SEE COLOUR IN FRONT OF ME. AND NOW?“ (App:PaintAR)

(art teachers, grounded theory study 2020)

- FURTHER RESEARCH
- media-cultural dimensions of technology acceptance & epistemology of AR : Which Reality?





## ACKNOWLEDGMENT

---

This poster was realized with the support of funding of the Federal Ministry of Education and Research. PhD project Regina Bäck, Ethik, Kultur und Bildung im 21. Jhd, Hanns- Seidel-Stiftung.

Thanks to Chris Götschl for IT/Design and PunktPunktKommaKunst for the Gallery Space as venue for DesignAR explorations. Thanks for proofreading of by Eleonora Bacchi and Roy Rodenhäuser.