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A CLASSIFICATION SCHEMA FOR DESIGNING AUGMENTED REALITY EXPERIENCES

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ABSTRACT

Aim/Purpose	Designing augmented reality (AR) experiences for education, health or entertainment involves multidisciplinary teams making design decisions across several areas. The goal of this paper is to present a classification schema that describes the design choices when constructing an AR interactive experience.
Background	Existing extended reality schema often focuses on single dimensions of an AR experience, with limited attention to design choices. These schemata, combined with an analysis of a diverse range of AR applications, form the basis for the schema synthesized in this paper.
Methodology	An extensive literature review and scoring of existing classifications were completed to enable a definition of seven design dimensions. To validate the design dimensions, the literature was mapped to the seven-design choice to represent opportunities when designing AR iterative experiences.
Contribution	The classification scheme of seven dimensions can be applied to communicating design considerations and alternative design scenarios where teams of domain specialists need to collaborate to build AR experiences for a defined purpose.
Findings	The dimensions of nature of reality, location (setting), feedback, objects, concepts explored, participant presence and interactive agency, and style describe features common to most AR experiences. Classification within each dimension facilitates ideation for novel experiences and proximity to neighbours recommends feasible implementation strategies.

The full paper was previously published as the following and is being presented at this conference:

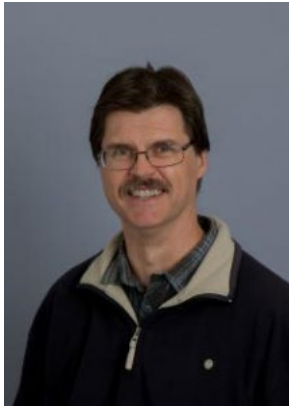
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Recommendations for Practitioners	To support professionals, this paper presents a comprehensive classification schema and design rationale for AR. When designing an AR experience, the schema serves as a design template and is intended to ensure comprehensive discussion and decision making across the spectrum of design choices.
Recommendations for Researchers	The classification schema presents a standardized and complete framework for the review of literature and AR applications that other researchers will benefit from to more readily identify relevant related work.
Impact on Society	The potential of AR has not been fully realized. The classification scheme presented in this paper provides opportunities to deliberately design and evaluate novel forms of AR experience.
Future Research	The classification schema can be extended to include explicit support for the design of virtual and extended reality applications.
Keywords	augmented reality, interactive experiences, design rationale, classification schema

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