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Immersive Analytics with Abstract 3D Visualizations: a Survey

APPENDIX

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I. List of Considered Conferences / Paper Parsing

Table 1: *Included Conferences and Abbreviations*

Abbreviation	Conference Name	Years of Inclusion
BDVA	Big Data Visual and Immersive Analytics	2015-2019 (no conference 2020)
CHI	ACM Conference on Human Factors in Computing Systems	2006-2020
ERVR	Engineering Reality of Virtual Reality (Electronic Imaging)	1994-2020
EuroVis	EG/VGTC Conference on Visualization	2005-2020
IEEE VIS	IEEE Visual Analytics Science and Technology (VAST), IEEE Information Visualization (InfoVis), and IEEE Scientific Visualization (SciVis)	1996-2020
IEEE VR	IEEE Conference on Virtual Reality and 3D User Interfaces	2012-2020
SD&A	Stereoscopic Displays and Applications (Electronic Imaging)	1990-2020
UIST	ACM Symposium on User Interface Software and Technology	2012-2020

II. Immersive Environments Criterion - Keyword List I

Table 2: *Keywords for Parsing Phase I*

VR	three dim
VirtualReality	three-dim
Virtual_Reality	3-dim
Virtual-Reality	3-D
Virtual Reality	3 D
Virtual/Reality	two-and-a-half-dimensional
AR	two and a half dimensional
AugmentedReality	2.5-dimensional
Augmented Reality	2.5 dimensional
Augmented-Reality	2.5D
Augmented_Reality	2.5 D
Augmented/Reality	2.5-D
Stereoscopic	immersion
three-dimensional	MixedReality
three dimensional	MR
3-dimensional	Mixed Reality
3 dimensional	Mixed_Reality
3D	Mixed-Reality
3 dim	Mixed/Reality

III. Abstract Visualization Criterion - Keyword List II

Table 3: *Keywords for Parsing Phase II*

abstract data	tree visualization
abstract visualization	tree-visualization
abstract visualisation	tree visualisation
abstract-visualization	tree-visualisation
abstract-visualisation	scatterplot
multi dimensional	scatter-plot
multi-dimensional	scatter plot
high dimensional	parallel coordinates
high-dimensional	parallel-coordinates
cluster data	PCP
cluster visualization	pixel-visualization
cluster-visualization	pixel visualization
cluster visualisation	pixel visualisation
cluster-visualisation	pixel-visualisation
set data	field data
set visualization	field visualization
set-visualization	field-visualization
set visualisation	field visualisation
set-visualisation	field-visualisation
list data	grid data
list visualization	grid visualization
list-visualization	grid-visualization
list visualisation	grid visualisation
list-visualisation	grid-visualisation
network data	geometrical data
network visualization	geometrical visualization
network-visualization	geometrical-visualization
network visualisation	geometrical visualisation
network-visualisation	geometrical-visualisation
hierarchical data	geometry data
hierarchical visualization	geometry visualization
hierarchical-visualization	geometry-visualization
hierarchical visualisation	geometry visualisation
hierarchical-visualisation	geometry-visualisation
graph data	table data
graph visualization	table visualization
graph-visualization	table-visualization
graph visualisation	table visualisation
graph-visualisation	table-visualisation
tree data	

IV. Results - Overview Table

Table 4: *Summarized results of the literature review.*

	Paper Type	Technology	Environment	Data Type	Visualization Technique	Analysis Task
[WF94]	E		VR			
[WF96]	E		VR			
[SSC*93]	D		VR			
[VRV97]	D		VR			
[ACCN99]	E		VR			
[NCCN99]	E		VR			
[KTS00]	D		VR			
[SSL*00]	S		VR			N/S
[SPVT01]	T		AR			
[NGM01]	S		VR			N/S
[SAK*02]	D		VR			
[BBHS03]	E		AR			
[RBLN04]	E		VR			
[BCC05]	E		VR			
[FGHG05]	D		VR			O
[APGV06]	D		VR			O
[NGBV08]	S		VR			
[WLM11]	S		VR			
[EML13]	E		VR			
[HBR*14]	D		VR			
[DDC*15]	E		VR			
[SWX*15]	T		AR			N/S
[KMLM16]	E		VR			
[Bel17]	T		VR			
[CDK*17]	E		VR			

	Paper Type	Technology	Environment	Data Type	Visualization Technique	Analysis Task
[WRFN17]	E		VR			
[SBHP17]	D		AR			
[CCD*17]	S		VR			N/S
[BC17]	M		VR			N/S
[BHM*18]	T		AR			
[DCW*18]	E		VR			
[FVP*18]	E		VR			O
[MMD*18]	D		VR			
[BGB*18]	D		VR			
[MRS*18]	T		VR			
[HHC18]	D		VR			
[SLC*19]	S		VR			N/S
[HRD*19]	S		VR			
[YDJ*19]	E		VR			
[WSN19]	E		VR			
[KBS*19]	T		VR			
[GPG*19]	S		AR VR			O
[KCWK19]	E		VR			O N/S
[CCB*19]	S		VR			N/S
[KWO*20]	E		VR			
[RFD20]	D		AR			N/S
[KAB*20]	T		VR			
[SAHC20]	E		AR			
[CBC*20]	T		AR			N/S
[HXW20]	T		VR			N/S
[ZMK*20]	T		VR			
[LPED20]	E		VR			

	Paper Type	Technology	Environment	Data Type	Visualization Technique	Analysis Task
[WSS20]	E	Hmd	AR VR	Table	Scatterplot	Anomaly, Pattern, Search
[HBV20]	D	Hmd	VR	Table	Geographic	Search, Overview
[NSW*20]	S	Hmd	AR	Table	Scatterplot, Other	N/S
[BJR20]	S	Hmd	AR VR	Table	Geographic, Scatterplot, PCP, Other	N/S
[LHC*20]	E	Hmd	VR	Table	Scatterplot, Other	Search, Overview
[YCB*20]	E	Hmd	VR	Table	Scatterplot	Overview

Paper Type	Technology	Environment	Data Type	Visualization Technique	Analysis Task
T Technique, E Evaluation, S System, M Model, D Design Study	Monitor, Cave, Hmd, Tablet	AR Augmented Reality, VR Virtual Reality	Table, Field, Geometry, Network	NodeLink, Scatterplot, PCP, Glyph, Geographic, Volume, Flow, Other	Cluster, Anomaly, Pattern, Search, Overview, Comparison, Enrichment, O Other, N/S Not Specified

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