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Nota di contenuto	3D Videocommunication; Contents; List of Contributors; Symbols; Abbreviations; Introduction; Section I Applications of 3D Videocommunication; 1 History of Telepresence; 1.1 Introduction; 1.2 The Art of Immersion: Barker's Panoramas; 1.3 Cinerama and Sensorama; 1.4 Virtual Environments; 1.5 Teleoperation and Telerobotics; 1.6 Telecommunications; 1.7 Conclusion; References; 2 3D TV Broadcasting; 2.1 Introduction; 2.2 History of 3D TV Research; 2.3 A Modern Approach to 3D TV; 2.3.1 A Comparison with a Stereoscopic Video Chain; 2.4 Stereoscopic View Synthesis; 2.4.1 3D Image Warping

2.4.2 A 'Virtual' Stereo Camera; 2.4.3 The Disocclusion Problem; 2.5 Coding of 3D Imagery; 2.5.1 Human Factor Experiments; 2.6 Conclusions; Acknowledgements; References; 3 3D in Content Creation and Post-production; 3.1 Introduction; 3.2 Current Techniques for Integrating Real and Virtual Scene Content; 3.3 Generation of 3D Models of Dynamic Scenes; 3.4 Implementation of a Bidirectional Interface Between Real and Virtual Scenes; 3.4.1 Head Tracking; 3.4.2 View-dependent Rendering; 3.4.3 Mask Generation; 3.4.4 Texturing; 3.4.5 Collision Detection; 3.5 Conclusions; References

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## Sommario/riassunto

The migration of immersive media towards telecommunication applications is advancing rapidly. Impressive progress in the field of media compression, media representation, and the larger and ever increasing bandwidth available to the customer, will foster the introduction of these services in the future. One of the key components for the envisioned applications is the development from two-dimensional towards three-dimensional audio-visual communications. With contributions from key experts in the field, 3D Videocommunication: provides a complete overview of existing systems and