

Storytelling For Virtual Reality Methods And Principles For Crafting Immersive Narratives

This book constitutes the refereed proceedings of the 8th International Conference on Augmented Reality, Virtual Reality, and Computer Graphics, AVR 2021, held in Italy, in September 2021. Due to COVID-19 pandemic the conference was held virtually. The 38 full and 14 short papers were carefully reviewed and selected from 69 submissions. The papers discuss key issues, approaches, ideas, open problems, innovative applications and trends in virtual reality, augmented reality, mixed reality, applications in cultural heritage, in medicine, in education, and in industry.

We are witnessing a revolution in storytelling. Publications all over the world are increasingly using immersive storytelling--virtual reality, augmented reality and mixed reality--to tell compelling stories. The aim of this book is to distill the lessons learned thus far into a useful guide for reporters, filmmakers and writers interested in telling stories in this emerging medium. Examining groundbreaking work across industries, this text explains, in practical terms, how storytellers can create their own powerful immersive experiences as new media and platforms emerge.

Data will not help you if you can't see it where you need it. Or can't collect it where you need it. Upon these principles, wearable technology was born. And although smart watches and fitness trackers have become almost ubiquitous, with in-body sensors on the horizon, the future applications of wearable computers hold so much more. A trusted reference for almost 15 years, *Fundamentals of Wearable Computers and Augmented Reality* goes beyond smart clothing to explore user interface design issues specific to wearable tech and areas in which it can be applied. Upon its initial publication, the first edition almost instantly became a trusted reference, setting the stage for the coming decade, in which the explosion in research and applications of wearable computers and augmented reality occurred. Written by expert researchers and teachers, each chapter in the second edition has been revised and updated to reflect advances in the field and provide fundamental knowledge on each topic, solidifying the book's reputation as a valuable technical resource as well as a textbook for augmented reality and ubiquitous computing courses. New Chapters in the Second Edition Explore: Haptics Visual displays Use of augmented reality for surgery and manufacturing Technical issues of image registration and tracking Augmenting the environment with wearable audio interfaces Use of augmented reality in preserving cultural heritage Human-computer interaction and augmented reality technology Spatialized sound and augmented reality Augmented reality and robotics Computational clothing From a technology perspective, much of what is happening now with wearables and augmented reality would not have been possible even five years ago. In the fourteen years since the first edition burst on the scene, the capabilities and applications of both technologies are orders of magnitude faster, smaller, and cheaper. Yet the book's overarching mission remains the same: to supply the fundamental information and basic knowledge about the design and use of wearable computers and augmented reality with the goal of enhancing people's lives. *The Oxford Handbook of Media Psychology* explores facets of human behaviour, thoughts, and feelings experienced in the context of media use and creation.

Explores the latest beliefs about why people tell stories and what stories reveal about human nature, offering insights into such related topics as universal themes and what it means to have a storytelling brain.

Transmedia storytelling is defined as a process where integral elements of fiction get dispersed systematically across multiple delivery channels to create a unified and coordinated entertainment experience. This process and its narrative models have had an increasing influence on the academic world in addressing both theoretical and practical dimensions of transmedia storytelling. *The Handbook of Research on Transmedia Storytelling and Narrative Strategies* is a critical scholarly resource that explores the connections between consumers of media content and information parts that come from multimedia platforms, as well as the concepts of narration and narrative styles. Featuring coverage on a wide range of topics such as augmented reality, digital society, and marketing strategies, this book explores narration as a method of relating to consumers. This book is ideal for advertising professionals, creative directors, academicians, scriptwriters, researchers, and upper-level graduate students seeking current research on narrative marketing strategies.

Interactive Narratives and Transmedia Storytelling provides media students and industry professionals with strategies for creating innovative new media projects across a variety of platforms. Synthesizing ideas from a range of theorists and practitioners across visual, audio, and interactive media, Kelly McErlean offers a practical reference guide and toolkit to best practices, techniques, key historical and theoretical concepts, and terminology that media storytellers and creatives need to create compelling interactive and transmedia narratives. McErlean takes a broad lens, exploring traditional narrative, virtual reality and augmented reality, audience interpretation, sound design, montage, the business of transmedia storytelling, and much more. Written for both experienced media practitioners and those looking for a reference to help bolster their creative toolkit or learn how to better craft multiplatform stories, *Interactive Narratives and Transmedia Storytelling* serves as a guide to navigating this evolving world.

An invaluable collection of essays and interviews exploring the business of interactive storytelling, this highly accessible guide offers invaluable insight into an ever-evolving field that is utilizing new spatial and interactive narrative forms to tell stories. This includes new media filmmaking and content creation, a huge variety of analog story world design, eXtended realities, game design, and virtual reality (VR) design. The book contains essays written by and interviews with working game designers, producers, 360-degree filmmakers, immersive theatre creators, and media professors, exploring the business side of interactive storytelling – where art meets business. Contributors to this book share their perspectives on how to break into the field; how to develop, nurture, and navigate business relationships; expectations in terms of business etiquette; strategies for contending with the emotional highs and lows of interactive storytelling; how to do creative work under pressure; the realities of working with partners in the field of new media narrative design; prepping for prototyping; writing analog and digital. This is an ideal resource for students of filmmaking, screenwriting, media studies, RTVF, game design, VR and AR design, theater, and journalism who are interested in navigating a career pathway in the exciting field of interactive storytelling.

A comprehensive overview of developments in augmented reality, virtual reality, and mixed reality—and how they could affect every part of our lives. After years of hype, extended reality—augmented reality (AR), virtual reality (VR), and mixed reality (MR)—has entered the mainstream. Commercially available, relatively inexpensive VR headsets transport wearers to other realities—fantasy worlds, faraway countries, sporting events—in ways that even the most ultra-high-definition screen cannot. AR glasses receive data in visual and auditory forms that are more useful than any laptop or smartphone

can deliver. Immersive MR environments blend physical and virtual reality to create a new reality. In this volume in the MIT Press Essential Knowledge series, technology writer Samuel Greengard offers an accessible overview of developments in extended reality, explaining the technology, considering the social and psychological ramifications, and discussing possible future directions. Greengard describes the history and technological development of augmented and virtual realities, including the latest research in the field, and surveys the various shapes and forms of VR, AR, and MR, including head-mounted displays, mobile systems, and goggles. He examines the way these technologies are shaping and reshaping some professions and industries, and explores how extended reality affects psychology, morality, law, and social constructs. It's not a question of whether extended reality will become a standard part of our world, he argues, but how, when, and where these technologies will take hold. Will extended reality help create a better world? Will it benefit society as a whole? Or will it merely provide financial windfalls for a select few? Greengard's account equips us to ask the right questions about a transformative technology.

Using mixed and augmented reality in communities is an emerging media practice that is reshaping how we interact with our cities and neighbors. From the politics of city hall to crosswalks and playgrounds, mixed and augmented reality will offer a diverse range of new ways to interact with our communities. In 2016, apps for augmented reality politics began to appear in app stores. Similarly, the blockbuster success of Pokémon Go illustrated how even forgotten street corners can become a magical space for play. In 2019, a court case in Milwaukee, Wisconsin, extended first amendment rights to augmented reality. For all the good that these emerging media provide, there will and have been consequences. *Augmented and Mixed Reality for Communities* will help students and practitioners navigate the ethical design and development of these kinds of experiences to transform their cities. As one of the first books of its kind, each chapter in the book prepares readers to contribute to the Augmented City. By providing insight into how these emerging media work, the book seeks to democratize the augmented and mixed reality space. Authors within this volume represent some of the leading scholars and practitioners working in the augmented and mixed reality space for civic media, cultural heritage, civic games, ethical design, and social justice. Readers will find practical insights for the design and development to create their own compelling experiences. Teachers will find that the text provides in-depth, critical analyses for thought-provoking classroom discussions.

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With the wide variety of devices, touch points, and channels in use, your ability to control how people navigate your well-crafted experiences is fading. Yet it's still important to understand where people are in their journey if you're to deliver the right content and interactions at the right time and on the right device. This practical guide shows you how storytelling can make a powerful difference in product design. Author Anna Dahlström details the many ways you can use storytelling in your projects and throughout your organization. By applying tried-and-tested principles from film and fiction to the context of design and business, you'll learn to create great product experiences. Learn how the anatomy of a great story can make a difference in product design Explore how traditional storytelling principles, tools, and methods relate to key product design aspects Understand how purposeful storytelling helps tell the right story and move people into action Use storytelling principles to tell, sell, and present your work

A practical hands-on guidebook for producers, directors, cinematographers, sound recordists, and editors interested in creating 360-degree video. Coursing an easy-to-follow trail through the thicket of technobabble and jargon, The book provides nuts-and-bolts recommendations on everything from the selection of cameras, microphones and editing tools to aesthetic and creative decisions such as camera placement and blocking, as well as editing, incorporating titles, transitions, and other effects.

As virtual reality approaches mainstream consumer use, new research and innovations in the field have impacted how we view and can use this technology across a wide range of industries. Advancements in this technology have led to recent breakthroughs in sound, perception, and visual processing that take virtual reality to new dimensions. As such, research is needed to support the adoption of these new methods and applications. *Cases on Immersive Virtual Reality Techniques* is an essential reference source that discusses new applications of virtual reality and how they can be integrated with immersive techniques and computer resources. Featuring research on topics such as 3D modeling, cognitive load, and motion cueing, this book is ideally designed for educators, academicians, researchers, and students seeking coverage on the applications of collaborative virtual environments.

Professor Craig Caldwell's *Story Structure and Development* offers a clear approach to the essentials of story. It lays out the fundamental elements, principles, and structure for animators, designers, and artists so they can incorporate these concepts in their work. As a practical guide it includes extensive insights and advice from industry professionals. Readers will learn the universal patterns of story and narrative used in today's movies, animation, games, and VR. With over 200 colorful images, this book has been designed for visual learners, and is organized to provide access to story concepts for the screen media professional and student. Readers will discover the story fundamentals referred to by every director and producer when they say "It's all about story".

This book focuses on storytelling and human life by exploring the possibilities of narrative approaches across numerous disciplines and in diverse contexts; stories are humanity's oldest way of making meaning of our past, present and future. Creators of immersive experiences in virtual reality, augmented reality, and mixed reality have relied heavily on familiar storytelling techniques used in books, theatre, and film -- often with confusing and unengaging results. Stephanie Riggs argues in *The End of Storytelling* that in order to develop powerful stories in these emerging mediums, we need nothing short of a paradigm shift in how we approach and conceptualize immersive narratives. Beautifully designed and explosively written, this book will help you better understand how to approach the exciting medium and get your next immersive project off the ground by explaining: Why storytelling doesn't work The fundamental narrative building blocks that do work How to think immersively A blueprint for developing your next immersive project *The End of Storytelling* is informed by over two decades of work in both immersive and classical mediums, and is rich with examples, inspiration, and challenges for

anyone interested in, or currently developing, effective immersive experiences. Its symphonic exploration presents fascinating context of our relationship to storytelling, and a practical model for building the future of narrative.

With reference to traditional film theory and frameworks drawn from fields such as screenwriting studies and anthropology, this book explores the challenges and opportunities for both practitioners and viewers offered by the 360-degree storytelling form. It focuses on cinematic virtual reality (CVR), a format that involves immersive, high quality, live action or computer-generated imagery (CGI) that can be viewed through head mounted display (HMD) goggles or via online platforms such as YouTube. This format has surged in popularity in recent years due to the release of affordable high quality omnidirectional (360-degree) cameras and consumer grade HMDs. The book interrogates four key concepts for this emerging medium: immersion, presence, embodiment and proximity through an analysis of innovative case studies and with reference to practitioner interviews. In doing so, it highlights the specificity of the format and provides a critical account of practitioner approaches to the concept development, writing and realisation of short narrative CVR works. The book concludes with an account of the author's practice-led research into the form, providing a valuable example of creative practice in the field of immersive media.

"When the first edition was written, the dominant form of electronic literature was hypertext fiction. The book devoted several chapters to hypertext theory, as well as to the difficulty of creating immersive hypertext narratives. Hypertextuality has lost none of its prominence as a principle of organization of the Web, but it is no longer considered avant-garde on the digital-literary scene. While the new forms that are currently being developed verify some of the recommendations made in NVR (shorter texts, greater reliance on multi-modality, self-referentiality and a tendency toward conceptual art), they generally avoid narrativity and its particular form of immersion, and even interactivity is no longer seen as indispensable. It is in the popular form of the video game that serious attempts are being made to reconcile immersion with interactivity. The second edition deals in greater detail with both the increase of narrativity in video games, and its loss in experimental digital literature. It also takes into consideration the creation of online worlds such as Second Life and World of Warcraft, which implement the idea of virtual reality in a way not foreseen by VR theorists of the nineties" --

Recent developments in the field of archaeology are not only progressing archaeological fieldwork but also changing the way we practise and present archaeology today. As these digital technologies are being used more and more every day on excavations or in museums, this also means that we must change the way we approach teaching and communicating archaeology as a discipline. The communication of archaeology is an often neglected but ever more important part of the profession. Instead of traditional lectures and museum displays, we can interact with the past in various ways. Students of archaeology today need to learn and understand these technologies, but can on the other hand also profit from them in creative ways of teaching and learning. The same holds true for visitors to a museum. This volume presents the outcome of a two-day international symposium on digital methods in teaching and learning in archaeology held at the University of Cologne in October 2018 addressing exactly this topic. Specialists from around the world share their views on the newest developments in the field of archaeology and the way we teach these with the help of archaeogaming, augmented and virtual reality, 3D reconstruction and many more. Thirteen chapters cover different approaches to teaching and learning archaeology in universities and museums and offer insights into modern-day ways to communicate the past in a digital age.

A deep dive into the world of online and multimedia longform storytelling, this book charts the renaissance in deep reading, viewing and listening associated with the literary mind, and the resulting implications of its rise in popularity. David O. Dowling argues that although developments in media technology have enabled the ascendance of nonfictional storytelling to new heights through new forms, it has done so at the peril of these intensely persuasive designs becoming deployed for commercial and political purposes. He shows how traditional boundaries separating genres and dividing editorial from advertising content have fallen with the rise of media hybridity, drawing attention to how the principle of an independent press can be reformulated for the digital ecosystem. Immersive Longform Storytelling is a compelling examination of storytelling, covering multimedia features, on-demand documentary television, branded digital documentaries, interactive online documentaries, and podcasting. This book's focus on both form and effect makes it a fascinating read for scholars and academics interested in storytelling and the rise of new media.

Award-winning cine-maVRicks Eric R. Williams, Carrie Love and Matt Love introduce virtual reality cinema (also known as 360° video or cine-VR) in this comprehensive guide filled with insider tips and tested techniques for writing, directing and producing effectively in the new medium. Join these veteran cine-VR storytellers as they break down fundamental concepts from traditional media to demonstrate how cine-VR can connect with audiences in new ways. Examples from their professional work are provided to illustrate basic, intermediate and advanced approaches to crafting modern story in this unique narrative space where there's no screen to contain an image and no specific stage upon which to perform. Virtual Reality Cinema will prepare you to approach your own cine-VR projects via: Tips and techniques for writing, directing and producing bleeding-edge narrative cine-VR projects; More than a hundred photos and illustrations to explain complex concepts; Access to more than two hours of on-line cine-VR examples that you can download to watch on your own HMD; New techniques developed at Ohio University's Game Research and Immersive Design (GRID) Lab, including how to work with actors to embrace Gravity and avoid the Persona Gap, how to develop stories with the Story Engagement Matrix and how to balance directorial control and audience agency in this new medium. This book is an absolute must read for any student of filmmaking, media production, transmedia storytelling and game design, as well as anyone already working in these industries that wants to understand the new challenges and opportunities of virtual reality cinema.

As virtual reality approaches mainstream consumer use, a vibrant development ecosystem has emerged in the past few years. This hands-on guide takes you through VR development essentials for desktop, mobile, and browser-based applications. You'll explore the three go-to platforms—OculusVR, Gear VR, and Cardboard VR—as well as several VR development environments, programming tools, and techniques. If you're an experienced programmer familiar with mobile development, this book will help you gain a working knowledge of VR development through clear and simple examples. Once you create a complete application in the final chapter, you'll have a jumpstart on the next major entertainment medium. Learn VR basics for UI design, 3D graphics, and stereo rendering Explore Unity3D, the current development choice among game engines Create native applications for desktop computers with the Oculus Rift Develop mobile applications for Samsung's Gear VR with the Android and Oculus Mobile SDKs Build browser-based applications with the WebVR Javascript API and WebGL Create simple and affordable mobile apps for any smartphone with Google's Cardboard VR Bring everything together to build a 360-degree panoramic photo viewer

Cinematic Virtual Reality brings a combination of documentary, narrative and game design principles to the medical profession and, in the healthcare arena, collaboration is a key component for creating intellectually- and emotionally- rich immersive experiences. The Power of Virtual Reality Cinema for Healthcare Training gathers more than a dozen experts from both the production and healthcare fields to break down best practices for creating successful cine-VR projects. Designed for multi-disciplinary teams interested in integrating cine-VR production into their healthcare training and educational programs, this book has been written for two audiences: the healthcare professional interested in what production experts consider when approaching a project, and the media expert curious about how this new technology can be used in the medical field. Highlights include: Cutting edge medical education techniques developed by Ohio University's GRID Lab, including: PREality (creating a forced sense of deja-vu to increase acclimation time), a unique approach to eye-tracking to enhance team performance, and the low-CRIS technique (a low-cost rapid implementation strategy to capture patient care for rapid graduate student training). Insightful production techniques that will enhance your cine-VR projects including advanced plating methods to hide lighting set-ups,

immersive audio considerations, and new ways to consider 360 storytelling including the Lovrick montage and the Christmas Carol continuum for story development. Detailed explanations of the production considerations and results of specific cine-VR productions (from funding approaches to distribution) including access to more than five hours of cine-VR examples of the actual productions available for download. Details on a wide variety of medical cine-VR projects, including 100 images that illustrate best practices for topics such as recording in active medical facilities, building successful multi-disciplinary teams, working within HIPAA regulations, conceptualizing cine-VR libraries for graduate education, and implementing innovative distribution models.

Recent developments in computer technology are providing historians with new ways to see—and seek to hear, touch, or smell—traces of the past. Place-based augmented reality applications are an increasingly common feature at heritage sites and museums, allowing historians to create immersive, multifaceted learning experiences. Now that computer vision can be directed at the past, research involving thousands of images can recreate lost or destroyed objects or environments, and discern patterns in vast datasets that could not be perceived by the naked eye. *Seeing the Past with Computers* is a collection of twelve thought-pieces on the current and potential uses of augmented reality and computer vision in historical research, teaching, and presentation. The experts gathered here reflect upon their experiences working with new technologies, share their ideas for best practices, and assess the implications of—and imagine future possibilities for—new methods of historical study. Among the experimental topics they explore are the use of augmented reality that empowers students to challenge the presentation of historical material in their textbooks; the application of seeing computers to unlock unusual cultural knowledge, such as the secrets of vaudevillian stage magic; hacking facial recognition technology to reveal victims of racism in a century-old Australian archive; and rebuilding the soundscape of an Iron Age village with aural augmented reality. This volume is a valuable resource for scholars and students of history and the digital humanities more broadly. It will inspire them to apply innovative methods to open new paths for conducting and sharing their own research.

This book sets out cutting-edge new research and examines future prospects on 360-degree video, virtual reality (VR), and augmented reality (AR) in journalism, analyzing and discussing virtual world experiments from a range of perspectives. Featuring contributions from a diverse range of scholars, *Immersive Journalism as Storytelling* highlights both the opportunities and the challenges presented by this form of storytelling. The book discusses how immersive journalism has the potential to reach new audiences, change the way stories are told, and provide more interactivity within the news industry. Aside from generating deeper emotional reactions and global perspectives, the book demonstrates how it can also diversify and upskill the news industry. Further contributions address the challenges, examining how immersive storytelling calls for reassessing issues of journalism ethics and truthfulness, transparency, privacy, manipulation, and surveillance, and questioning what it means to cover reality when a story is told in virtual reality. Chapters are grounded in empirical data such as content analyses and expert interviews, alongside insightful case studies that discuss Euronews, Nonny de la Peña's Project Syria, and The New York Times' NYTVR application. This book is written for journalism teachers, educators, and students, as well as scholars, politicians, lawmakers, and citizens with an interest in emerging technologies for media practice.

This book provides insights into the state of the art of digital cultural heritage using computer graphics, image processing, computer vision, visualization and reconstruction, virtual and augmented reality and serious games. It aims at covering the emergent approaches for digitization and preservation of Cultural Heritage, both in its tangible and intangible facets. Advancements in Digital Cultural Heritage research have been abundant in recent years covering a wide assortment of topics, ranging from visual data acquisition, pre-processing, classification, analysis and synthesis, 3D modelling and reconstruction, semantics and symbolic representation, metadata description, repository and archiving, to new forms of interactive and personalized presentation, visualization and immersive experience provision via advanced computer graphics, interactive virtual and augmented environments, serious games and digital storytelling. Different aspects pertaining to visual computing with regard to tangible (books, images, paintings, manuscripts, uniforms, maps, artefacts, archaeological sites, monuments) and intangible (e.g. dance and performing arts, folklore, theatrical performances) cultural heritage preservation, documentation, protection and promotion are covered, including rendering and procedural modelling of cultural heritage assets, keyword spotting in old documents, drone mapping and airborne photogrammetry, underwater recording and reconstruction, gamification, visitor engagement, animated storytelling, analysis of choreographic patterns, and many more. The book brings together and targets researchers from the domains of computing, engineering, archaeology and the arts, and aims at underscoring the potential for cross-fertilization and collaboration among these communities.

UNLOCK YOUR GAME'S NARRATIVE POTENTIAL! With increasingly sophisticated video games being consumed by an enthusiastic and expanding audience, the pressure is on game developers like never before to deliver exciting stories and engaging characters. With *Video Game Storytelling*, game writer and producer Evan Skolnick provides a comprehensive yet easy-to-follow guide to storytelling basics and how they can be applied at every stage of the development process—by all members of the team. This clear, concise reference pairs relevant examples from top games and other media with a breakdown of the key roles in game development, showing how a team's shared understanding and application of core storytelling principles can deepen the player experience. Understanding story and why it matters is no longer just for writers or narrative designers. From team leadership to game design and beyond, Skolnick reveals how each member of the development team can do his or her part to help produce gripping, truly memorable narratives that will enhance gameplay and bring today's savvy gamers back time and time again.

This book surveys the many ways of telling stories with digital technology, including blogging, gaming, social media, podcasts, and Web video. * Provides a bibliography listing sources consulted * Contains an index of key words and concepts from the text

"When a giant lemon from outer space crashes into Jack's house, his mother is distraught at their rotten luck. But after

meeting a marvellous assortment of giant fruit removalists, Jack finds his own amazing way to turn their luck around. The Boy and the Lemon is a story about luck and a way for parents to teach their children life's most magical lesson - how to be lucky"--Back cover.

The dramatic, larger-than-life true story behind the founding of Oculus and its quest for virtual reality, by the bestselling author of Console Wars. From iconic books like Neuromancer to blockbuster films like The Matrix, virtual reality has long been hailed as the ultimate technology. But outside of a few research labs and military training facilities, this tantalizing vision of the future was nothing but science fiction. Until 2012, when Oculus founder Palmer Luckey—then just a rebellious teenage dreamer living alone in a camper trailer—invents a device that has the potential to change everything. With the help of a videogame legend, a serial entrepreneur and many other colorful characters, Luckey's scrappy startup kickstarts a revolution and sets out to bring VR to the masses. As with most underdog stories, things don't quite go according to plan. But what happens next turns out to be the ultimate entrepreneurial journey: a tale of battles won and lost, lessons learned and neverending twists and turns—including an unlikely multi-billion-dollar acquisition by Facebook's Mark Zuckerberg, which shakes up the landscape in Silicon Valley and gives Oculus the chance to forever change our reality. Drawing on over a hundred interviews with the key players driving this revolution, *The History of the Future* weaves together a rich, cinematic narrative that captures the breakthroughs, breakdowns and human drama of trying to change the world. The result is a super accessible and supremely entertaining look at the birth of a game-changing new industry.

This book focuses on the meaning and experience of digital practice, emerging from work in the world of business and drawing on recent anthropological thinking on digital culture. Tom Maschio suggests that the digital is a space of a new "story culture" and considers the lived experience of new technologies. The chapters cover: storytelling in journalism and business with the new technology of virtual reality, the emerging meanings of social media and community building in the digital space, the uses and meanings of visual imagery online, and the cultural meanings of smartphone technology use and the "mobile life." The book incorporates ideas from humanistic anthropology and phenomenology in order to bring business problems into alignment with human concerns and desires, and to show the application of anthropological ideas to real-world issues. As well as anthropologists, the book will be valuable to business students and professionals interested in the digital realm.

International politics is witnessing a rapid transformation due to the emerging impact of the internet and digital media. Activists in various countries have been given a new medium to voice their views and opinions, resulting in governments adapting to the digital environment in which we currently live. As the role of social media and online communities continue to grow, empirical research is needed on their specific impact on governmental policies and reform. *Recent Developments in Internet Activism and Political Participation* is an essential reference source that explores the modern role that digital media plays within community engagement and political development. This book discusses real-world case studies in various regions of the world on how the internet is affecting government agendas and promoting the voice of the community. Featuring research on topics such as digital ecosystems, information technology, and foreign policy, this book is ideally designed for researchers, strategists, government officials, policymakers, sociologists, administrators, scholars, educators, and students seeking coverage on the societal impact of social media in modern global politics.

Despite popular forays into augmented and virtual reality in recent years, spatial computing still sits on the cusp of mainstream use. Developers, artists, and designers looking to enter this field today have few places to turn for expert guidance. In this book, Erin Pangilinan, Steve Lukas, and Vasanth Mohan examine the AR and VR development pipeline and provide hands-on practice to help you hone your skills. Through step-by-step tutorials, you'll learn how to build practical applications and experiences grounded in theory and backed by industry use cases. In each section of the book, industry specialists, including Timoni West, Victor Prisacariu, and Nicolas Meuleau, join the authors to explain the technology behind spatial computing. In three parts, this book covers: Art and design: Explore spatial computing and design interactions, human-centered interaction and sensory design, and content creation tools for digital art Technical development: Examine differences between ARKit, ARCore, and spatial mapping-based systems; learn approaches to cross-platform development on head-mounted displays Use cases: Learn how data and machine learning visualization and AI work in spatial computing, training, sports, health, and other enterprise applications

Storytelling for Virtual Reality serves as a bridge between students of new media and professionals working between the emerging world of VR technology and the art form of classical storytelling. Rather than examining purely the technical, the text focuses on the narrative and how stories can best be structured, created, and then told in virtual immersive spaces. Author John Bucher examines the timeless principles of storytelling and how they are being applied, transformed, and transcended in Virtual Reality. Interviews, conversations, and case studies with both pioneers and innovators in VR storytelling are featured, including industry leaders at LucasFilm, 20th Century Fox, Oculus, Insomniac Games, and Google. For more information about story, Virtual Reality, this book, and its author, please visit StorytellingforVR.com

Virtual Reality Filmmaking presents a comprehensive guide to the use of virtual reality in filmmaking, including narrative, documentary, live event production, and more. Written by Celine Tricart, a filmmaker and an expert in new technologies, the book provides a hands-on guide to creative filmmaking in this exciting new medium, and includes coverage on how to make a film in VR from start to finish. Topics covered include: The history of VR; VR cameras; Game engines and interactive VR; The foundations of VR storytelling; Techniques for shooting in live action VR; VR postproduction and visual effects; VR distribution; Interviews with experts in the field including the Emmy-winning studios Felix & Paul and Oculus Story Studio, Wevr, Viacom, Fox Sports, Sundance's New Frontier, and more.

This book provides an introduction and overview of the rapidly evolving topic of game user experience, presenting the new perspectives employed by researchers and the industry, and highlighting the recent empirical findings that illustrate the nature of it. The first section deals with cognition and player psychology, the second section includes new research on modeling and measuring player experience, the third section focuses on the impact of game user experience on game design processes and game development cycles, the fourth section presents player experience case studies on contemporary computer games, and the final section demonstrates the evolution of game user experience in the new era of VR and AR. The book is suitable for students and professionals with different disciplinary backgrounds such as computer science, game design, software engineering, psychology, interactive media, and many others.

This book constitutes the refereed proceedings of the 11th International Conference on Interactive Digital Storytelling, ICIDS 2018, held in Dublin, Ireland, in December 2018. The 20 revised full papers and 16 short papers presented together with 17 posters, 11 demos, and 4 workshops were carefully reviewed and selected from 56, respectively 29, submissions. The papers are organized in the following topical sections: the future of the discipline; theory and analysis; practices and games; virtual reality; theater and performance; generative and assistive tools and techniques; development and analysis of authoring tools; and impact in culture and society.

This book is the second book-length publication of the programme Media and Education in the Digital Age-MEDA. The contributions discuss the risks of the digital turn in educational storytelling but also of the opportunities for critical engagements. They provide unique ideas, evidence and inspiration in support of critical education.

Explore the latest features of Unity 2018 to create immersive VR projects for Oculus Rift, HTC Vive, Daydream and Gear VR Key Features A project-based guide to teach you how to develop immersive and fun VR applications using Unity 3D Build experiences with interactable objects, physics, UI, animations, C# scripting, and other Unity features Explore the world of VR by building experiences such as diorama, first-person characters, 360-degree projections, social VR, audio fireball game, and VR storytelling Book Description Unity has become the leading platform for building virtual reality games, applications, and experiences for this new generation of consumer VR devices. Unity Virtual Reality Projects walks you through a series of hands-on tutorials and in-depth discussions on using the Unity game engine to develop VR applications. With its practical and project-based approach, this book will get you up to speed with the specifics of VR development in Unity. You will learn how to use Unity to develop VR applications that can be experienced with devices such as Oculus, Daydream, and Vive. Among the many topics and projects, you will explore gaze-based versus hand-controller input, world space UI canvases, locomotion and teleportation, software design patterns, 360-degree media, timeline animation, and multiplayer networking. You will learn about the Unity 3D game engine via the interactive Unity Editor, and you will also learn about C# programming. By the end of the book, you will be fully equipped to develop rich, interactive VR experiences using Unity. What you will learn Create 3D scenes with Unity and other 3D tools while learning about world space and scale Build and run VR applications for specific headsets, including Oculus, Vive, and Daydream Interact with virtual objects using eye gaze, hand controllers, and user input events Move around your VR scenes using locomotion and teleportation Implement an audio fireball game using physics and particle systems Implement an art gallery tour with teleportation and data info Design and build a VR storytelling animation with a soundtrack and timelines Create social VR experiences with Unity networking Who this book is for If you're a non-programmer unfamiliar with 3D computer graphics, or experienced in both but new to virtual reality, and are interested in building your own VR games or applications, then this book is for you. Any experience in Unity is an advantage.

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