



Edition: 1st Edition 2018
pages: 400
Images: 433
Cover: Hardcover, 21 x 28 cm
ISBN: 978-1-78698-023-6
Stock No.: 7545
Published: July 2018

Price £158.00
Subject to changes!

Quintessence Publishing Company, Ltd.

 Grafton Road
KT3 3AB New Malden, Surrey
United Kingdom

 +44 (0)20 8949 6087

 +44 (0)20 8336 1484

 info@quintpub.co.uk

 <http://nginx/gbr/en>

Book information

Editor: Rekow, Dianne
Title: Digital Dentistry
Subtitle: A Comprehensive Reference and Preview of the Future
Short text:

Digital technologies have broadened and enriched the horizon, impact, and delivery of dentistry for decades, and will continue to do so.

Since an in-depth understanding of innovations and new approaches can be somewhat confusing, this comprehensive reference book aims to describe and demystify the underlying principles of digital technologies. It also examines similarities and differences between available and emerging systems, and demonstrates the value and use of digital approaches in clinical cases.

The book looks at how we acquire, manipulate, and leverage digital data in a host of disciplines as well as the implications of and opportunities for digital dentistry in education. Contributions from authors with differing expertise emphasize the influence of digital technologies across a breadth of disciplines, well beyond restorative dentistry. This reference book could not be a comprehensive resource without addressing the challenges and opportunities intrinsic to both integrating new technologies into dental practice and keeping up with the inevitable fast-paced changes.

Previewing the future, the book explores the potential impact of new innovations on how and what we practice as well as how we think, teach, and pursue knowledge. Energizing our ingenuity and imagination, the book lays the groundwork for creating dentistry's vibrant and exciting future.

Contents

Section I. Introduction

Chapter 01. Digital Dentistry: Broadening Dentistry's Horizon and Impact
Chapter 02. The Breadth and Depth of Digital Dentistry

Section II. Acquiring the Digital Data

Chapter 03. Intraoral Scanners: Enhancing Dentistry's Image
Chapter 04. Digital Radiography
Chapter 05. Electronic Health Records: A Critical Aspect of Digital Dentistry

Section III. Manipulating the Digital Data

Chapter 06. CAD/CAM Systems: A Paradigm Shift in Restoration Design and Production
Chapter 07. 3D Printing in Dentistry
Chapter 08. Digital Restoration Design based on Biologic Principles
Chapter 09. Conventional vs Digital Prosthodontics

Section IV. Leveraging the Digital Data

Chapter 10. Caries Detection and Tissue Repair Diagnostics in Digital Dentistry
Chapter 11. The Application of Surgical Navigation Technology in Head and Neck Surgery
Chapter 12. Craniomaxillofacial Surgery Design
Chapter 13. Real-time Microvascular Examination of the Oral Mucosa for the Diagnosis and Monitoring of Oral Diseases
Chapter 14. Rapid Bacterial Detection during Endodontic Treatment
Chapter 15. Robocasting (Direct-Ink Writing) of Hydroxy Apatite, β -TCP, and Bioglass for Alloplastic Bone Grafts

Section V. Implications of and Opportunities for Digital Dentistry in Education

Chapter 16. Transforming Education and Learning with Digital Technologies in Dentistry

Chapter 17. Digital Technology: Impact on and Opportunities for Dental Education
Chapter 18. The Unity of Knowledge in Dental Medicine

Section VI. Challenges and Opportunities

Chapter 19. Challenges and Opportunities Intrinsic to Digital Dentistry
Chapter 20. Keeping up with Change and Changing Technologies
Chapter 21. Big Data: Storage, Sharing, and Usage

Section VII. The Future

Chapter 22. Virtual and Mixed Reality in Clinical Application
Chapter 23. Digital Dentistry: A Future Limited Only by Our Imagination

Authors and Contributors

Alexander Ammann • Rupert Austin • Pedro Bastos • Trevor Baxter • Zhigang Cai • Stephen D. Campbell • Michael Chan • Richard Cook • Lyndon F. Cooper • Piali Das • Renata A. Dias • Jonathan L. Ferencz • Frederic Festy • Federico Foschi • Robert Gottlander • Chunbin Guo • Dylan B. Herzog • Neveen Hosny • Sarah Kaddour • M. Kerry Herd • Abgeena Khan • Garrit Koller • Tsutomu Kubota • Nicholas Leake • Jie Liang • Francesco Mannocci • Helen McParland • Leandro Medeiros dos Santos • Sadia Niazi • Niall O'Neill • Vinod Patel • Sharon Perelman • Nigel Pitts • Henley Quadling • Mark Quadling • Dianne Rekow • Irena Sailer • Jonathan P. San Diego • Claire Schilling • Susan Schlusser • Xiaofeng Shan • Nelson R. F. A. Silva • James Smay • Ian Thompson • Van P. Thompson • Megan Walker • Timothy F. Watson • Mark Wolff • Gaku Yoshimoto • Julian Zeolla

Categories: Digital dentistry, General Dentistry