**THE FUTURISTIC TRENDS IN DENTAL SCIENCES**

**INTRODUCTION:**

Introduction to new book why? When already so many books exist at the same topic?

It is because; in the first place every author is highly appreciated and their work is recognized. Each of the books has given the experienced author to share their knowledge and research skill for the betterment of next generation students. With my work of teaching experience and my mentor’s guidance I present this topic in a simplicity style and adaptive by every student in academics and daily practice.

Since the ancient civilizations, dental science has come a long way. The primitive dental treatments were rudimentary and mostly accompanied by myths and superstitions. The Ancient Egyptians used bees wax and metals for dental work, but with great pioneers like Pierre Fauchard (The Father of Dentistry) in the 18th century and many work from such pioneers, dentistry has continually evolved, benefitting millions worldwide [1].

Primarily, remedying dental pain was of more importance rather than preventive measures, however in recent times with evolving 22nd century, dentistry has entered a phase of technology advancement era where designing perfect smiles and good oral health are achievable for everyone.

Owing to unprecedented factors, such as sudden pandemic outburst of COVID- 19, dentistry has been going through a period of significant transformation thus this book gives you a brief insight about all the futuristic trends of dental industry.

The latest technological innovation with digital transformation in dentistry, which is built on electronic health data information, is the major game-changer of the 22nd century, where one can handle present and upcoming challenges in dental and oral health smartly. The ongoing progress in information technology (IT) has simplified the outcomes and made it possible to overcome the limitations and hurdles that existed in clinical dentistry. Some of the digital processes that has already been integrated into treatment protocols, are mainly in the field of rapidly growing branch of computer-aided design/computer-aided manufacturing (CAD/CAM) and rapid prototyping (RP) [2].

The scope of dental radiology has broadened in recent years to encompass automated processing in radiological imaging using artificial intelligence (AI) and machine learning (ML). Moreover, it is on the technological basis that the augmented reality (AR) uses the real-world scenarios and incorporates the virtual reality (VR) on top of it to enhance the experience. AI superimposes the large imaging files creating a platform where dental patients can visualize virtually the non-invasive simulations and learn about different outcomes prior to any clinical intervention [2].

Recent advancement of artificial intelligence (AI) in dentistry, its impact in the dental office and dental colleges are not routine and still found to be under limited use. However, these technologies have made its application in certain fields such as, robotic assistance, dental image diagnostics, caries detection, radiography and pathology and electronic record keeping [3].

The authors believe in two major realities, firstly “TODAYS VISION IS TOMORROW’S REALITY” and secondly as the science crosses the lines of many diverse disciplines and so one book cannot serve as a suitable refence for the student, hence to conclude “A SINGLE BOOK NO LONGER CAN COVER COMPLETELY ALL ASPECTS OF THIS CONSTANTLY EXPANDING FIELD” [4].

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