3 Reasons You Should Opt for Digital Dentistry

It is unlikely for any dental entity to have not considered the benefits of digital technologies, given their omnipresence today. Increased efficiency, productivity, faster turnaround, reduced costs, and greater flexibility are often the attributes associated with digital technologies, when one considers the quality of their outcomes.

Digitalization made inroads within dentistry decades ago, starting in the 1960s with the development of tomography, and established a firmer foot with the dental application of computer-aided design, computer-aided manufacturing (CAD/CAM) in 1971 by French professor François Duret aka 'Godfather' of Digital Dentistry.

Today, an increasing number of dental practices are moving towards the concept of digital workplace and those embracing the opportunities are thriving.

What is Digital Dentistry?

Digital dentistry relates to a broad range of digital or computer-based devices and technologies, including solutions such as CAD/CAM, dental lasers, CNC milling, intra-oral cameras, digital X-rays and now 3D printing.

Contrary to being just a single technology, digital dentistry is a complete workflow that leverages the operational capabilities of different tools and systems to create virtual 3D models of a patient's dental anatomy and produce accurate dental restorations such as dentures, crowns, dental implants or bridges among others, using a CNC milling equipment or a 3D printer.

These models can be used repetitively to produce the same type of restorations without re-running the conventional yet cumbersome process of capturing a patient's dental anatomy on a sacrificial plaster mold.

Who Should Embrace Digital Dentistry?

Dental labs and practitioners looking to improve the quality and accuracy of their dental products in reduced time while overcoming the shortage of skilled dental technicians should opt for digital dentistry.

Key Factors Driving Digital Growth

1. Accuracy and Efficiency

Usage of CAD/CAM, digital radiography, intra-oral scanners, and other such digital technologies enables dental laboratories to create digital impressions which are more accurate and capture all the nuances of dental anatomy, thereby helping to produce more precise dental restorations, with faster turnaround times.

2. Repeatability

The digital models created not only help with the physical reproduction of devices but they can also be stored and retrieved anytime, allowing the dental practices to easily recreate the dental devices at a later date, as and when required without having to make the patient go through the entire scanning process all over again. The customer experience is more straightforward and the practice benefits from significant process time and cost efficiencies, which all translates to improved returns.

3. Meeting Demands

Demand for dental services will continue to grow as people become more aware of the link between oral health and overall health. A report titled "Projecting the Demand for Dental Care in 2040" by co-authors Chad D. Meyerhoefer, Ph.D. and Richard J. Manski, DDS, MBA, Ph.D., found that the total number of dental visits will reach 319 million in 2040, up from 294 million in 2017. By necessity, the dental industry will need to improve its process efficiencies to be able to meet such a significant increase in demand.

However, are there enough dental care providers available in the market?

Statistics by the US Health Resources & Services Administration indicate that approximately 60 million people live in dental health professional shortage areas (HPSAs) in the US, with about 10,733 dental practitioners needed to serve these areas.

Innovations in digital technologies can not only come in handy, but will help bridge both current and anticipated skilled labor gaps, thus avoiding the exacerbation of the situation.

Future of Digital Dentistry – Penetration of Dental 3D Printing

New dentistry materials, techniques, and technologies are set to enter the market, with dental 3D printers signaling a promising future, bringing revolutionary changes in terms of cost and time reduction and delivery of precise and bespoke dental products such as tooth replacements, crowns, and aligners. The ability of 3D printers to enable same-day dentistry and provide better-fit products can help the dental practices attend more patients and increase client satisfaction and retention.

According to market intelligence company Transparency Market Research, the global dental 3D printing market was worth $1.4 billion in 2018 and is expected to grow at a CAGR of 14.5% between 2019 and 2027.

The market for 3D digital printers is gaining momentum as the industry, demographics, and technology are right for this exciting innovation. The ability of a 3D dental printer to print complex dental models using different types of compatible materials, in a significantly shorter period with very high precision, will help in driving its popularity. Furthermore, the growing demand for dental care among the aged population and cosmetic dentistry among a younger demography, is a market driving factor to supporting the need to own your own dental 3D printer.

At DMG, we're leveraging our longstanding expertise, groundbreaking technologies, and market reputation for delivering superior "first-of-its-kind" products, to launch our new 3D digital high-speed printing solution for the professional dental industry. Our comprehensive 3D printing range includes the LuxaPrint suite of 3D printer resins, intuitive cloud-based DentaMile connect software and the new 3Demax 3D printer integrated with 3Dewash and 3Decure modules, to facilitate a simplified and validated digital workflow.

To learn more, please visit http://www.dmg-america.com/en/products/digital-technology/3d-printing/

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