

Medical Device & AI Regulations

THE JOURNAL 2023

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Digitisation for DSOs

Discover why dental support organisations must go digital and how they can do so.

Four guiding principles can help DSOs select and implement digital initiatives that result in optimised efficiencies, consistent treatment outcomes, and an improved experience for both patients and providers that fuels the stability and growth of organisations.



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key points

- Digitisation is essential to the continued growth and stability of DSOs in an ever-changing industry, but the adoption and rollout of digital solutions must be done judiciously in order to provide a positive return on investment. (ROI)
- Instead of investing in new digital technology simply for the sake of being early adopters, DSOs should carefully evaluate their options and select solutions that address their organisation's unique needs.
- Careful communication with internal stakeholders and clinicians will help DSOs to ensure widespread support for the adoption and consistent utilisation of new technologies.
- The new software or equipment should facilitate, not complicate, the roles of clinical and administrative staff.
- To measure the ROI of a digitisation initiative, DSOs should determine in advance how they will assess the impact of the adoption of new digital technology.

Why Must DSOs Go Digital?

Dental support organisations (DSOs) have the unique opportunity as well as obligation to advance dentistry and shape the delivery of oral healthcare by digitising their organisations through the large-scale adoption of innovative technologies.

Digital technology benefits DSOs by reducing the time required to complete certain clinical procedures and administrative tasks, freeing up time that can be spent generating revenue by seeing more patients. The benefits don't end there; digitisation reduces variables and inefficiencies to create more standardised treatment workflows with predictable outcomes. For example, some dental technologies—such as programs that use artificial intelligence (AI) to identify radiologic pathologies—increase clinicians' confidence in their ability to make accurate diagnoses (Frontiers in Dental Medicine 2023).

Transitioning to digital solutions also provides an answer to the staffing issues currently plaguing the dental industry. There is available software that can assist with tasks that

would otherwise require an employee to spend many hours to complete. This can potentially eliminate the need to hire for certain non-clinical roles, and reduce stress for all team members by freeing up more time for them to focus on duties that cannot currently be automated.

According to a report by the American Dental Association (ADA) Health Policy Institute (HPI) published in 2022 that analysed the dental labor shortage in the United States of America, "factors associated with (staff) retention include work-life balance, positive workplace culture, and ability to help patients" (ADA Health Policy Institute 2022).

An organisation that boasts modern dental technology and optimised processes thus provides the working environment that attracts and retains dental hygienists and assistants.

Digitisation also enhances the value proposition for oral healthcare consumers who are searching for a new dental care provider with modern digital tools. Digital solutions can help make dentistry more cost-effective and convenient for patients while improving the quality



of outcomes, resulting in a treatment experience that meets consumer demand for low-cost, high-quality, and personalised care.

DSOs are well positioned to benefit exponentially from wide-scale adoption of digital technology due to their agility, economies of scale, and resources. There is a virtually limitless range of options to choose

It may be counterproductive to implement a new program or tool if utilising it makes the workday longer or more stressful for clinical and administrative staff. Consistent adoption and correct utilisation of the technology is key to ensuring the success of the investment, so the digital product or equipment should be easy to integrate into the daily workflow and the

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from, given the recent surge of emergent solutions for automating and digitising processes on both the clinical and administrative levels. The challenge, however, lies in recognising which digital technologies are worth investing in, and then rolling out the solutions across the network in a consistent and supported manner.

The Judicious Adoption of Digital Technology

Modern dental technology includes clinical equipment like intra-oral scanners, laboratory solutions like 3D printers, and administrative tools like practice and patient management platforms. Given the dizzying array of options, it can be overwhelming to make a financially sound technological investment that will benefit the entire network.

How can DSOs choose the right technology to invest in? The following four guiding principles may help:

The Four Fundamental Principles of Digitization for DSOs

1. Understand the needs of the organisation and its target market.

Instead of adopting new dental digital products purely for the sake of being an early adopter, a DSO would do well to select tools and technology that speak to local consumer demand and the needs of the clinicians and other staff employed at the network's practices. Digital solutions should solve real problems and make it easier for clinical team members to render treatments. This requires a careful analysis of the needs of the market and the organisation, as well as a thorough investigation of how a new piece of technology can address those needs (see box: "Questions for DSOs to Ask").

2. Choose digital solutions that will be a natural fit for the organisation's current workflows and processes.

benefits should be readily apparent to the end users. DSOs should also create and execute a strategy to ensure that the digital technology—whether in the form of a software or a clinical tool—is correctly and consistently implemented across the network.

3. Request input and feedback from the individuals who will be using the new technology.

A digitisation initiative should have full support from the team members who will be utilising it. DSOs may need to execute internal awareness campaigns and training sessions to help clinicians understand the rationale for its adoption. Dentists should also have a part in the decision-making process when it comes to digitising a treatment workflow, as this will help them feel valued and elicit their support for the digital rollout. A lack of consultation, on the other hand, could cause feelings of resentment and burnout for dentists and clinical staff, leading to under-utilisation of the technology.

4. Carefully weigh the benefits versus the costs of adopting a new digital technology or workflow.

If the tool or system under consideration does not deliver results as expected, how will the loss impact the organisation? Is the vendor or provider of the technology familiar with the complex needs of enterprise-level healthcare companies, particularly in the dental industry? Are they experienced in providing solutions and support at the scale that DSOs need? It is essential to do research to find out what other customers have used a particular solution and what their experience has been. It is also important to determine in advance what signs to look for that signal a successful execution, adoption, and utilisation of a digitisation initiative. While the ROI on a digital initiative can be difficult to measure, by setting some parameters at the outset, a DSO can



recognise signs that indicate the success or failure of the investment. In addition, a strategic partner will assist DSOs in identifying bespoke solutions and implementing them to the extent required across their network.

Conclusion

Digitisation of the delivery of oral care improves access to care for patients, helps DSOs meet the demands of oral healthcare consumers, improves efficiencies in processes at every organisational level, increases production potential, and helps sustain the standard of clinical excellence across the network. Digitisation is thus an integral part of the elixir of growth for the DSO model.

This was recently demonstrated in a DSO consisting of more than 400 practices. The DSO implemented an end-to-end strategy to digitise their single-implant delivery system and harmonise treatment processes. As a result, the DSO was able to reduce surgical appointment times by 50% and increase single-unit implant treatments by 30% (for more information please [contact us](#)).

Despite facing a vast array of digital technologies, it is possible for DSOs to make judicious selections and then strategically implement the chosen solutions across their practice geography. Partnering with experienced trusted brands with the capacity to design and execute digitisation initiatives at scale can help DSOs to leverage the benefits of going digital and achieve an ROI for the

solutions they adopt.

Visit Straumann Group’s [resources page for DSOs](#) for more insights.

Conflict of Interest

None. ■

Questions for DSOs to Ask

Will the technological investment under consideration...

- make it easier for clinicians to do their job or will it add an unnecessary burden to their daily workload?
- reduce chair time?
- minimise the risk of litigation by reducing clinician errors and the possibility of misdiagnoses?
- supply aggregated data on clinician performance and consumer satisfaction that helps the organisation make informed decisions?
- standardise treatment outcomes from practice to practice?
- standardise operational processes and centralise data across the network?
- improve treatment plan acceptance rates?
- facilitate appointment scheduling and treatment payment for consumers?

references

American Dental Association Health Policy Institute, American Dental Assistants Association, American Dental Hygienists' Association, the Dental Assisting National Board, IgniteDA (2022) Dental workforce shortages: Data to navigate today's labor market. Available from: <https://www.ada.org/-/media/project/adaorganization/ada/ada-org/files/resources/research/>

[hpi/dental_workforce_shortages_labor_market.pdf](#)

Ding H et al. (2023) Artificial intelligence in dentistry—A review. *Frontiers in Dental Medicine*. Sec. Dental Materials. Vol 4. Available from: <https://doi.org/10.3389/fdmed.2023.1085251>



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