



AI & ROBOTICS: OVERVIEWS AND REVIEWS

Artificial intelligence hallucinations in dentistry: implications and safeguards for clinical practice (Editorial)	Int Dent J 2026; 76 (5): 109802
Evaluating the safety of large language models in healthcare and dentistry: adversarial testing approaches	BDJ Open 2026; 12: 70
Accuracy and reliability of artificial intelligence chatbots as public information sources in implant dentistry [can be accessed on DOSS free by logging in on this page]	Int J Oral Maxillofac Impl 2026; 41 (2): 254-62
AI in oral health surveillance: critical review [can be accessed on DOSS free by logging in on this page]	J Dent Res 2026; 105 (7): 840-52
Role of artificial intelligence in pediatric dentistry: an umbrella review [Accessible from the Wiley link on this page]	Int J Paed Dent 2026; 36 (4): 556-66
To AI or Not to AI? that is the question (request using https://www.smartsurvey.co.uk/s/PJHMY/)	Dental Update 2026; 53 (6): 410-16
Explainable artificial intelligence in dentistry: a systematic review of its trust and translation	Int Dent J 2026; 76(4): 109626
Who is really deciding? AI and clinical judgement in dentistry	Int Dent J 2026; 76(3): 109476
Exploring the prospects of artificial intelligence in transforming dental care for special needs groups: mapping the current evidence	BDJ Open 2026; 12: 49
Introduction to methods in artificial intelligence and cognitive neurology [Review] [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	Dent Clin N Am 2026; 70(2): 275-285
Dental therapeutic applications of nanotechnology and artificial intelligence (AI) [Review] [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	Dent Clin N Am 2026; 70(2): 287-293
The science behind machine learning, deep learning, and active learning [Review] [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	Dent Clin N Am 2026; 70(2): 351-359
Radiographic data segmentation as a tool in machine learning and deep learning artificial intelligence algorithms [Review] [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	Dent Clin N Am 2026; 70(2): 331-349
Explainability, bias and generalizability of AI models in dentistry: a systematic review of model interpretability and equity	Clin Exp Dent Res 2026; 12(3): e70375



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ProSocial artificial intelligence in oral health: A paradigm shift [Review] [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	Dent Clin N Am 2026; 70(2): 295-303
Comparative analysis of ChatGPT-3.5 and GPT-4 in open-ended clinical reasoning across dental specialties [Accessible from the Wiley link on this page]	Eur J Dent Educ 2026; 30(2): 526-532
Ethical dimensions of artificial intelligence integration into dental practice [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Am Dent Assoc 2026; online 30 Apr doi.org /10.1016/j.adaj.2026.02.004
Artificial intelligence: What is current in dentistry? [Review] [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	Dent Clin N Am 2026; 70(1): 99-115
What is wrong with automation bias?	Philosoph Tech 2026; 39: 84
Artificial intelligence–driven dentistry: a systematic review of ethical and legal challenges	Int J Dent 2026; online 16 Mar: 10.1155/ijod/1870800
Who is really deciding? AI and clinical judgement in dentistry	Int Dent J 2026; 76(3): 109476
Integrating AI into dentistry: technical pathways and clinical applications in oral diseases—a comprehensive overview	Int Dent J 2026; 76(2): 109336
Artificial Intelligence and Augmented Intelligence as Tools for Dental Practice Management. [Review] [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	Dent Clin N Amer 2026; 70(2): 503-16
Ethics in the world of artificial intelligence [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	Dent Clin N Amer 2026; 70(2): 517-526
Artificial intelligence and its applications in oral medicine—part 2 [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	Dent Clin N Amer 2026; 70(2): 379-388
Artificial intelligence and its applications in oral medicine—part 1 [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	Dent Clin N Amer 2026; 70(2): 361-377
Dental therapeutic applications of nanotechnology and artificial intelligence (AI) [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	Dent Clin N Amer 2026; 70(2): 287-293
Artificial intelligence is reshaping the face of dentistry [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	Dent Clin N Amer 2026; 70(2): xv-xvii



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[Advancements in dental science through artificial intelligence and machine learning: a comprehensive review](#)

Int J Clin Pediatr Dent 2026; 19(1): 120-126

[Dentists' awareness of data security and ethical issues during the transition to artificial intelligence-driven clinical practice](#)

Acta Odontol Scand 2026; 85: 61-66

[Generative artificial intelligence: applications and future prospects in dentistry](#)

Int Dent J 2026; 76(1): 108276

[Artificial intelligence: what is current in dentistry?](#) [free to members on Science Direct. If you do not have a login email library@bda.org to request one]

Dent Clin N Amer 2026; 70(1): 99-115

[The ethics and governance of large language models in dentistry: A framework for research and clinical implementation](#) [free to members on Science Direct. If you do not have a login email library@bda.org to request one]

J Dent 2026; 164: 106187

Can chatbots transform dentistry? [Log in to the [BDA home page](#) and follow the link to the BDJ Portfolio to access]

BDJ In Practice 2026; 39 (1): 21

[Artificial intelligence applications in dentistry: a systematic review](#)

Oral 2025; 5(4): 90

The role of artificial intelligence in clinical dentistry: current applications and future perspectives [can be accessed on DOSS free by logging in [on this page](#)]

Compend Cont Educ Dent 2025; 46(10): 474-480

[The future of scientific writing: AI tools, benefits, and ethical implications](#)

Braz Dent J 2025; 36: e256471

[Application of machine learning in dentistry: insights, prospects and challenges](#)

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Artificial intelligence in dentistry: an overview of systematic reviews and meta-analysis [Log in to the [BDA home page](#) and follow the link to the BDJ Portfolio to access]

EBD 2025; 26: 180

Performance of multimodal generative AI models in addressing complex dental inquiries with text, images, and analytical data [Accessible from the Wiley link [on this page](#)]

J Esthet Restor Dent 2025; online 25 Nov: jerd.70064

[Understanding data drift in dental AI](#)

Int Dent J 2025; 75(6): 103937

The role of social robots in dentistry: security, privacy and future prospects [Log in to the [BDA home page](#) and follow the link to the BDJ In Practice to access]

BDJ 2025; 239 (9): 647-651



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Use of artificial intelligence for self-diagnosis: Dento-legal implications [Log in to the BDA home page and follow the link to the BDJ In Practice to access]	BDJ In Practice 2025; 38 (11): 384-385
Implementation of a Virtual Dental Assistant based on GPT: Part 2 [Log in to the BDA home page and follow the link to the BDJ In Practice to access]	BDJ In Practice 2025; 38 (6): 190-193
Artificial intelligence in dentistry: a bibliometric analysis [Log in to the BDA home page and follow the link to the BDJ to access]	BDJ (2025). https://doi.org/10.1038/s41415-025-8885-y
Some dento-legal considerations about AI in dentistry [Log in to the BDA home page and follow the link to the BDJ to access]	BDJ 2025; 239 (6): 402-405
Performance of large language models (ChatGPT4-0, Grok2 and Gemini) in UK dentistry and dental hygiene and therapy assessments	BDJ (2025). https://doi.org/10.1038/s41415-025-8383-2
The expanding role of AI in dentistry: beyond image analysis [Log in to the BDA home page and follow the link to the BDJ Portfolio to access]	BDJ 2025; 238 (10): 800-801
Artificial intelligence in dental age estimation- applications, technological advances and legal aspects: A narrative review	J Oral Biol Craniofac Res 2025; 15 (6): 1534-8
AI in dental service provision – rapid evidence assessment. Final report	© General Dental Council, Aug 2025
Reporting guideline for chatbot health advice studies - The CHART Statement	JAMA Network Open 2025; 8 (8): 10.1001/jamanetworkopen.2025.30220
The potential of artificial intelligence in the early detection of systemic diseases during routine dental care [Log in to the BDA home page and follow the link to the BDJ Portfolio to access]	BDJ 2025; 239 (3): 168-74
Can large language models serve as reliable tools for information in dentistry? A systematic review	Int Dent J 2025; 75(4): 100835
Accuracy of artificial intelligence in making diagnoses and treatment decisions in pediatric dentistry [can be accessed on DOSS free by logging in on this page]	Pediatric Dentistry 2025; 47(2): 73-78
The risks of artificial intelligence: A narrative review and ethical reflection from an Oral Medicine group	Oral Diseases 2025; 31(2): 348-353
Applications of artificial intelligence in dental medicine: a critical review	Int Dent J 2025; 75(2): 474-486



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The transformative role of artificial intelligence in dentistry: a comprehensive overview. part 1: fundamentals of AI, and its contemporary applications in dentistry	Int Dent J 2025; 75(2): 383-396
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Moving toward implementation of responsible artificial intelligence in health care - The European TRAIN Initiative	JAMA 2025 online 10 Feb doi:10.1001/jama.2025.1335
Artificial intelligence in dentistry: FDI policy statement	Int Dent J 2025; 75(1): 3-4
AI in oral medicine: is the future already here? A literature review	BDJ 2024; 237(10): 765-770
Artificial intelligence applications in dentistry: A bibliometric review with an emphasis on computational research trends within the field [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Am Dent Assoc 2024; 155 (9): 755-64
Comparing the dental knowledge of large language models [Log in to the BDA home page and follow the link to the BDJ Portfolio to access]	BDJ (2024). doi.org/10.1038/s41415-024-8015-2
Is UK dentistry ready to fully embrace artificial intelligence? [Log in to the BDA home page and follow the link to the BDJ Portfolio to access]	BDJ In Practice 2024; 37(11): 412-415
Trustworthy artificial intelligence in dentistry: learnings from the EU AI Act	J Dent Res 2024; online 23 Sep doi.org/10.1177/00220345241271160
Development of artificial intelligence models for tooth numbering and detection: a systematic review	Int Dent J 2024; 74(5): 917-929
Ethical considerations for the integration of artificial and augmented intelligence in dentistry: Navigating the landscape and preparing for the future [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Am Dent Assoc 2024; 155 (8): 721-2
Innovating dental diagnostics: ChatGPT's accuracy on diagnostic challenges [Accessible from the Wiley link on this page]	Oral Diseases 2024; online 22 Jul doi.org/10.1111/odi.15082
Leveraging Large Language Models in the delivery of post-operative dental care: a comparison between an embedded GPT model and ChatGPT	BDJ Open 2024; 10: Art 48
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Accuracy and consistency of chatbots versus clinicians for answering pediatric dentistry questions: A pilot study [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Dentistry 2024; 144: 104938
Assessing the performance of Bing Chat artificial intelligence: Dental exams, clinical guidelines, and patients' frequent questions [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Dentistry 2024; 144: 104927
Students' perceptions towards the ethical considerations of using artificial intelligence algorithms in clinical decision-making [Log in to the BDA home page and follow the link to the BDJ to access]	BDJ 2024; 236(6): doi.org/10.1038/s41415-024-7184-3
Current applications of artificial intelligence for pediatric dentistry: a systematic review and meta-analysis [can be accessed on DOSS free by logging in on this page]	Pediatr Dent 2024; 46 (1): 27-35
Is ChatGPT a reliable source of scientific information regarding third-molar surgery? [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Am Dent Assoc 2024; 155 (3): 227-32
The impact and opportunities of large language models like ChatGPT in oral and maxillofacial surgery: a narrative review	Int J Oral Maxillofac Surg 2024; 53 (1): 78-88
Research and application of artificial intelligence in dentistry from lower-middle income countries – a scoping review	BMC Oral Health 2024; 24(1): 220
Fairness of artificial intelligence in healthcare: review and recommendations	Jpn J Radiol 2024; 42(1): 3-15
Natural language processing: chances and challenges in dentistry	J Dent 2024; 141: 104796
Implications of large language models such as ChatGPT for dental medicine	J Esthet Restor Dent 2023; 35(7): 1098-1102
Ethical considerations on artificial intelligence in dentistry: A framework and checklist [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Dent 2023; 135: 104593
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Artificial intelligence in dentistry: a review of ChatGPT's role and potential [can be accessed on DOSS free by logging in on this page]	Quintessence Int 2023; 54 (7): 526-527
Artificial intelligence in dentistry: A bibliometric analysis from 2000 to 2023	J Dent Sci 2023; online 11 Nov doi.org/10.1016/j.jds.2023.10.025



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Implications of ChatGPT in public health dentistry: a systematic review	Cureus 2023; 15 (6): e40367
Patients' perspectives on the use of artificial intelligence in dentistry: a regional survey	Head Face Med 2023; 19: Art 23
AI in dentistry: understanding and realising its full potential [can be accessed on DOSS free by logging in on this page]	Fac Dent J 2023; 14(3): 108-111
Artificial intelligence: "summoning the demon" or "a tool, not a threat"? [can be accessed on DOSS free by logging in on this page]	Fac Dent J 2023; 14(3): 84-8
AI in dentistry: Leading the revolution	Dental Econ 2023; 113 (6)
What is the current state of artificial intelligence applications in dentistry and orthodontics? [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Stomatol Oral Maxillofac Surg 2023; 124(5): 101524
Artificial intelligence in healthcare and education [written entirely by AI]	BDJ 2023; 234: 761-4
Deep learning: A primer for dentists and dental researchers [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	J Dent 2023; 130: 104430
ChatGPT for shaping the future of dentistry: the potential of multi-modal large language model	Int J Oral Sci 2023; 15(1): 29
BDJ Perspective: Artificial intelligence - Advances and pitfalls; A new wine in an old bottle?; Natural language processing in dentistry; Personalised dental medicine - just a hype or true game changers? [Log in to the BDA home page and follow the link to the BDJ to access]	BDJ 2023; 234: 749-55
Dental chatbots in action [Log in to the BDA home page and follow the link to the BDJ and then BDJ In Practice to access]	BDJ In Practice 2023; 36 (5): 20-21
Artificial intelligence: what it is and what it can do for dentists (request using https://www.smartsurvey.co.uk/s/PJHMY/)	Dental Update 2023; 50 (4): 245-9
Applications of artificial intelligence in dentistry: A comprehensive review	J Esthet Restor Dent 2022; 34(1): 259-280
Artificial intelligence and clinical decision support: clinicians' perspectives on trust, trustworthiness, and liability	Med Law Rev 2023; 31 (4): 501-20
Natural language processing for clinical notes in dentistry: A systematic review	J Biomed Informatics 2023; 138: 104282
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How AI is transforming dental practice [Not included in the loan copy] [can be accessed on DOSS free by logging in on this page]	Compendium Continuing Educ Dent 2021; 42(1): 14-17
Artificial intelligence in medico-dental diagnostics of the face: a narrative review of opportunities and challenges	Clin Oral Investig 2022; 26 (12): 6871-6879
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Promises and perils of artificial intelligence in dentistry	Aust Dent J 2021; 66(2): 124-135
Applications of deep learning in dentistry [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	Oral Surg Oral Med Oral Pathol Oral Radiol 2021; 132(2): 225-238
Use of artificial intelligence in dentistry: current clinical trends and research advances	J Can Dent Assoc 2021; 87: 17
Robot technology in dentistry, part two of a systematic review: an overview of initiatives [free to members on Science Direct. If you do not have a login email library@bda.org to request one]	Dent Mater 2021; 37(8): 1227-1236
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Artificial intelligence and ethics in dentistry: A scoping review [can be accessed on DOSS free by logging in on this page]	J Dent Res 2021; 100 (13): 1452-1460
Disruptive innovation in dentistry: What it is and what could be next [can be accessed on DOSS free by logging in on this page]	J Dent Res 2021; 100(5): 448-453
Application of artificial intelligence in dentistry [can be accessed on DOSS free by logging in on this page]	J Dent Res 2021; 100(3): 232-244
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[The ways of using machine learning in dentistry](#)

Adv Clin Exp Dent 2020; 29(3): 375-384