

Dentists

AI now reads radiographs, flags caries and bone loss, helps plan treatment and drafts notes; the clinical work in the mouth remains the dentist's.

EXPOSURE 24 Low exposure	WINDOW 7–15 yrs until change lands	ADOPTION TODAY Medium	READING AI assists; the work stays human-led. Exposure is the share of today's work AI can plausibly take on within the window.
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§ 01WHAT IS HAPPENING

What is happening to dentists

Impact

Regulator-cleared platforms such as Overjet, Pearl and VideaHealth analyse radiographs chairside, highlighting caries, bone loss and calculus and quantifying findings that used to depend on the individual dentist's eye. Digital workflows from Dentsply Sirona and Align automate scanning, restoration design and aligner planning, and practice-management software increasingly handles scheduling, recalls and insurance narratives. Ambient note-taking tools are beginning to draft clinical records from the conversation. Examination, diagnosis, consent, the procedure itself and the judgement about what is appropriate for this patient stay with the dentist.

Risk

Low exposure: image analysis, planning and admin gain AI support; diagnosis, treatment and patient trust remain the dentist's.

The score is low because the measured generative-AI exposure is low: Microsoft Research rates very few dental tasks as suited to language models, the Anthropic Economic Index records minimal observed usage, and the US Bureau of Labor Statistics places the occupation in a moderate official tier. The score carries a small upward editorial adjustment because radiograph-reading and treatment-planning AI are regulator-cleared and in practice use, and that image-based work is invisible to text-usage measures. What automates is detection support, restoration design, aligner planning, documentation and much of the front-office work; what stays human is the examination, the clinical decision, the procedure, consent, complication management and the relationship. Over a 7-15 year window, expect AI-assisted diagnosis to become standard of care, more consistent treatment recommendations, pressure from insurers using the same tools to review claims, and some shift of routine work toward hygienists and therapists. The dentist remains the accountable clinician.

Sector readiness

Rapid Integration via Imaging and Practice Software

Dental service organisations and larger group practices have deployed AI radiograph analysis across many sites, often citing consistency of diagnosis and patient communication, and insurers use the same technology to review claims. Independent practices are adopting more slowly, usually when they upgrade imaging or practice-management software that now bundles AI features. Digital scanning and CAD/CAM restorations are already mainstream and continue to extend.

§ 02 POSITION

Where you stand

- i Position yourself as a clinician who uses AI imaging and digital planning to diagnose more consistently and explain findings more clearly, rather than as someone who resists it.
- ii Invest in procedures and specialisms - implants, surgery, complex restorative, paediatric and anxious-patient care - where hands-on skill and judgement dominate.
- iii If you own or lead a practice, treat AI-enabled operations as a business advantage in scheduling, case acceptance and claims.

§ 03 ACTIONS

6 POINTS

What this means for you

Concrete changes to how the work gets done, in the order you are likely to meet them.

- 01 **Use the second read.** Overjet, Pearl or VideaHealth will flag things you would sometimes miss and sometimes flag things that are not there. Review every finding yourself and keep your own diagnostic skills sharp.
- 02 **Explain with the overlay.** Patients accept treatment more readily when they can see the annotated image. Use the AI output as a communication tool, not just a detection one.
- 03 **Expect insurers to use it too.** Payers run the same image analysis on claims. Make sure your documentation and radiographs support what you bill.
- 04 **Go digital end to end.** Intraoral scanning, CAD/CAM and aligner planning are the mainstream now; being fluent in them is a baseline expectation.
- 05 **Protect the examination.** Software reads images, not patients. Your clinical examination, history-taking and judgement about the whole person are the standard of care.
- 06 **Build procedural depth.** The more your week consists of complex, hands-on work, the less any software touches it. Pursue further training in the areas that interest you.

§ 04 CAUSES

6 DRIVERS

What is pushing this change

- 01 **Regulator-cleared radiograph analysis.** Overjet, Pearl and VideaHealth detect and quantify caries, bone loss and other findings on dental images and are deployed across large practice groups.
- 02 **Digital scanning and CAD/CAM workflows.** Dentsply Sirona and Align systems automate impressions, restoration design and aligner planning that once relied on manual craft and labs.
- 03 **Insurer use of the same AI.** Payers apply image analysis to claims review, pushing practices to adopt matching tools and tighten documentation.
- 04 **Practice-management automation.** Scheduling, recalls, insurance narratives and patient messaging are increasingly handled by software, reducing front-office load.
- 05 **Ambient clinical documentation.** Dental-specific voice and ambient note tools are beginning to draft charting and records, following the pattern in medicine.
- 06 **Editorial adjustment for image work.** The score is raised slightly because radiograph and treatment-planning AI is in real use but invisible to text-based exposure measures.

Impact by sector

The headline figure is an average. Where you work changes the picture.

Dental service organisations and group practices	The most advanced adopters, with AI imaging and practice automation rolled out across sites to standardise diagnosis and operations.
Independent general practices	Adoption follows software and imaging upgrades; many use digital scanning but have not yet added AI image analysis.
Specialist practices	Orthodontics and implant surgery rely heavily on digital planning, while the procedures themselves remain highly skilled and manual.
Public and community dentistry	Budget constraints slow adoption, though AI screening has potential in high-volume, under-served settings.

Skills to build

The skills that keep the human part of this work valuable as the routine part is automated.

- 01 **Clinical diagnosis with AI support.** Knowing how to weigh an AI finding against your own examination and the patient's history is the new diagnostic competence.
- 02 **Procedural and surgical skill.** Restorative, surgical and implant work is where hands-on expertise defines value; continued training in these areas is the strongest career protection.
- 03 **Digital dentistry fluency.** Intraoral scanning, CAD/CAM design and aligner planning are now core workflow skills rather than optional extras.
- 04 **Patient communication and consent.** Explaining findings, options and risks clearly, often using annotated images, drives case acceptance and trust.
- 05 **Documentation and payer awareness.** Records and radiographs must withstand AI-assisted claims review; disciplined documentation protects both patient and practice.
- 06 **Practice leadership.** For owners, understanding how AI tools affect scheduling, workflow and revenue is becoming part of running the business.

Tools in use

KINDS OF TOOL WORTH KNOWING

- 01**VideaHealth.** Dental AI platform for radiograph analysis used by practice groups.
- 02**Ambient dental documentation tools.** Voice and ambient note-taking assistants emerging for dental charting and record-keeping.

NAMED TOOLS ALREADY IN USE

Overjet	VISIT
Regulator-cleared dental AI that analyses radiographs for caries and bone loss and supports patient communication and claims.	
Pearl	VISIT
AI radiograph analysis platform that detects and annotates pathology chairside.	
Dentsply Sirona digital workflow	VISIT
Intraoral scanning, imaging and CAD/CAM systems with increasingly automated design and planning.	
Align iTero and ClinCheck	VISIT
Intraoral scanner and treatment-planning software for aligner therapy with automated staging.	

In practice

Ways people in this role are already using AI, and what they get from it.

AI-assisted radiograph review EXAMPLE 1	HOW	During a check-up the dentist reviews bitewings with AI annotations highlighting interproximal caries and bone levels, confirms findings clinically and shows the patient the overlay.
	GAIN	More consistent detection and clearer patient conversations about treatment.
Same-day digital restoration EXAMPLE 2	HOW	The dentist scans the prepared tooth, the software proposes a crown design, and the restoration is milled in-house while the patient waits.
	GAIN	Removes impressions and a second visit, with less reliance on the lab.
Automated insurance narratives EXAMPLE 3	HOW	Practice software generates the supporting narrative and attaches annotated images for a claim, which the dentist reviews before submission.
	GAIN	Fewer denials and less administrative time for the team.

How this role compares

Three neighbouring roles chosen to show the direction of travel.

Radiologists MORE EXPOSED	AI IMPACT Image-analysis AI covers a large share of the core reading task, making this one of the most exposed clinical roles. WORK MOVES TO Complex interpretation, interventional work and oversight of AI findings.
Nurse Practitioners DIFFERENT SKILLS, GROWING	AI IMPACT AI handles documentation and decision support while demand for hands-on primary care continues to grow. WORK MOVES TO Patient assessment, relationship-based care and clinical judgement.
Dental Hygienists COMPLEMENTARY, LESS EXPOSED	AI IMPACT AI flags findings on images but the preventive and periodontal care delivered in the chair is physical and personal. WORK MOVES TO Hands-on clinical care, patient education and prevention.

Closing judgement

If you are a dentist, AI is becoming a second pair of eyes on every radiograph and a faster hand on the paperwork, and that is largely to your advantage if you adopt it deliberately. It will not drill, extract, place an implant or decide with a nervous patient what is right for them. Expect to be held to the standard the software sets, including by insurers using it, and learn to use it to explain findings and build trust rather than to replace your own examination. The clinical craft and the relationship are where your value sits, and both are durable.

Evidence and revisions

What the exposure figure rests on, what changed when it was last revised, and the published work cited for this role.

SCORE	The 5 October 2026 review held the score.
24	
WINDOW	Exposure Index v2. Inputs: task applicability 9/100 (Microsoft AI applicability score 0.05 for Dentists, general); observed usage 4/100 (Anthropic observed exposure 0.03); official exposure tier 40/100 (BLS: moderate); labour-market trajectory not yet mapped for this occupation, so its weight was spread across the other inputs; published adoption rating 40/100 (medium adoption). Weighted base 20.0. Editorial adjustment +4: Radiograph-reading and treatment-planning AI are regulator-cleared and in practice use; image work is invisible to text-usage measures. Final score 24. New report: the window of 7-15 years is set from the score band.
7-15 years (unchanged)	

HOW THE FIGURE IS BUILT (EXPOSURE INDEX V2)

Task applicability — Microsoft Research, AI applicability score	9 × 39%	3.5
Observed usage — Anthropic Economic Index, observed exposure	4 × 22%	0.9
Official exposure tier — US BLS AI-exposure category	40 × 22%	8.9
Labour-market trajectory — US BLS projected employment change 2025–35	not measured	—
Published adoption rating — This report’s adoption level	40 × 17%	6.7
Weighted base		20.0
Editorial adjustment: Radiograph-reading and treatment-planning AI are regulator-cleared and in practice use; image work is invisible to text-usage measures.		+4
Exposure score		24

MEASURES BEHIND THE SCORE

US Bureau of Labor Statistics · *Employment Projections 2025–35 and AI Exposure Categories* (27 August 2026)
AI-exposure tier: Moderate. Projected employment change not yet mapped for this occupation. Matched to Dentists, general.

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Microsoft Research · *Working with AI: Measuring the Applicability of Generative AI to Occupations* (10 July 2025)
AI applicability score 0.05 for SOC 29-1021; scaled to 9/100 as the task-applicability input.

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Anthropic · *Anthropic Economic Index report: Cadences* (26 June 2026)
Observed exposure 0.03 for SOC 29-1021; scaled to 4/100 as the observed-usage input.

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UK Department for Science, Innovation and Technology · *Assessment of AI capabilities and the impact on the UK labour market* (28 January 2026)

UK context: around 70% of UK workers are in occupations with tasks AI could perform or enhance, above the US average; a one-standard-deviation rise in exposure was associated with a 3.9% fall in UK job postings.

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<https://www.careerguard.ai/sources>

§ 12 APPENDIX

Method and sources

Each report was written from a large body of published research. The exposure score itself is computed, not written: it is the CareerGuard Exposure Index, a weighted average of occupation-level measures from the US Bureau of Labor Statistics (AI-exposure classification and 2025–35 projections), Microsoft Research (AI applicability scores) and Anthropic (observed exposure), together with the adoption rating published on the report. The organisations and publications below are the standing literature behind the narrative sections. Every source, with dates, licences and archived copies where we are permitted to hold them, is catalogued in the research library.

Exposure Index v2 (October 2026). Each input is scaled to 0–100 and weighted: task applicability 35% (Microsoft AI applicability score ÷ 0.5), observed usage 20% (Anthropic observed exposure ÷ 0.75), official exposure tier 20% (BLS very high = 100, high = 70, moderate = 40, low = 10), labour-market trajectory 10% ($50 - 2.5 \times \text{projected \% employment change}$), published adoption rating 15% (very high = 85, high = 70, medium-high = 55, medium = 40, low-medium = 25, low = 10). Inputs not measured for an occupation are dropped and the remaining weights renormalised. An editorial adjustment of at most ± 12 points is allowed only for automation channels the measures cannot see (robotics, self-service, machine vision, medical imaging, RPA/OCR, generative video) and is always logged with its reason. Scores are whole numbers, not rounded to five. The change window shifts one notch (a year at each end) per ten points of movement.

I GLOBAL AND MACROECONOMIC IMPACT OF AI ON WORK**World Economic Forum**

The Future of Jobs Report series — Employer survey of expected job growth and decline, skill shifts and technology adoption (2020, 2023 and 2025 editions); *Artificial Intelligence and the Future of Entry-Level Work* (2026).

AI governance and transformation reports — Frameworks on ethical AI, talent strategy and industry transformation.

McKinsey Global Institute

AI, Automation and the Future of Work series — Research quantifying automation potential by task, sector and demographic, from "Jobs Lost, Jobs Gained" to "Agents, robots, and us" (2025).

Industry-specific reports — Financial services, healthcare, manufacturing and others.

PwC

Global AI Jobs Barometer — Annual analysis of job postings and productivity by AI exposure (2024–2026 editions).

Upskilling Hopes and Fears survey — Employee perceptions and readiness.

Microsoft Research and Anthropic

Working with AI (2025); *Anthropic Economic Index* (2025–2026) — Occupation-level usage data from Copilot and Claude conversations, the two observed-usage measures behind the 2026 revision.

Stanford Digital Economy Lab and Stanford HAI

Canaries in the Coal Mine? (2025–2026); AI Index Report (annual) — Payroll evidence on early-career employment in exposed occupations; annual measurement of AI capability, investment and adoption.

Deloitte

Human Capital Trends series — Workforce, talent and HR technology trends.

Tech Trends series — Emerging technologies and their business implications.

Accenture

Technology Vision series — Forward-looking analysis of emerging technology, with emphasis on AI.

Fjord Trends — Design, innovation and human experience in a digital world.

Boston Consulting Group

AI/ML insights and industry solutions — "The AI Revolution in the Workplace" and related research.

EY

AI and workforce reports — Adoption, talent strategy and ethics.

IBM Institute for Business Value

AI and automation studies — Business models, workforce evolution and leadership.

OECD

AI Policy Observatory — International data and policy on AI, labour markets and skills.

Employment Outlook — Labour-market trends including technological impact (2023–2026 editions).

International Labour Organization

Generative AI and Jobs: A Refined Global Index of Occupational Exposure (2025) — Task-level exposure gradients for every ISCO occupation; successor to the 2023 global index.

International Monetary Fund

Staff Discussion Notes on AI and work (2024, 2026) — Complementarity framing: where AI augments and where it substitutes.

UK Department for Science, Innovation and Technology

Assessment of AI capabilities and the impact on the UK labour market (2026) — UK occupational exposure and job-posting evidence.

Brookings Institution

AI and automation research — Economic and social implications, displacement and skills.

Yale Budget Lab and Goldman Sachs Research

Tracking the Impact of AI on the Labor Market; AI and the US labour market (2026) — Aggregate labour-market monitoring; macro displacement estimates.

Oxford University (Oxford Martin School)

The Future of Employment — Frey & Osborne and subsequent research on susceptibility to automation.

MIT Technology Review

AI & Work — Reporting on AI research and its implications for industries and jobs.

Gartner

Hype Cycle for Artificial Intelligence — Maturity and adoption of AI technologies.

Future of Work reports — Workplace models and talent strategy.

U.S. Bureau of Labor Statistics

Employment Projections 2025–35; AI Exposure Categories; Occupational Outlook Handbook — Ten-year employment projections and, from the 2025 cycle, an AI-exposure tier for every detailed occupation.

Indeed Hiring Lab

AI at Work Report (2025) and posting-market updates — Skill-level transformation estimates and job-posting trends by occupation.

II CORE AI AND MACHINE-LEARNING RESEARCH

OpenAI

Research papers, blog and API documentation — Large language models, generative AI, safety and societal impact.

Google DeepMind

Research papers and blog — Reinforcement learning, AI for science, AGI and ethics.

Meta AI

Research papers and blog — Large language models, computer vision, AI for social good.

Hugging Face

Transformers library and model hub — Open-source state-of-the-art NLP models.

TensorFlow and PyTorch

Documentation and community forums — Core frameworks illustrating practical capability.

arXiv

cs.AI, cs.LG, cs.CV, cs.CL — Pre-print research.

NeurIPS and ICML

Conference proceedings — Top-tier academic research.

ACM and IEEE

Journals and proceedings — ACM Computing Surveys; IEEE Transactions on AI.

Kaggle

Datasets and competition solutions — Applied machine learning on real-world problems.

The Alan Turing Institute

Research and reports — Responsible and applied AI.

III ETHICAL AND RESPONSIBLE AI DEPLOYMENT

NIST

AI Risk Management Framework — Voluntary framework for managing AI risk.

European Commission

AI Act — Risk-tiered legal framework for AI.

Ethics Guidelines for Trustworthy AI — Principles for responsible development.

Partnership on AI

Research and best practice — Responsible AI development.

AI Now Institute

Annual reports — Social implications: power, inequality, rights.

ACM FAccT

Proceedings — Fairness, accountability and transparency.

Data & Society

Publications — Social implications of data-centric technology.

WIPO

Conversation on IP and AI — Intellectual-property implications of AI.

IEEE Global Initiative on Ethics of AI/IS

Ethically Aligned Design — Recommendations for ethical AI design.

Center for AI and Digital Policy

Policy briefs — Accountable AI policy.

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