

Episode 140 – Future of Artificial Intelligence in Oral Healthcare: Interview with Dr. Moharrami

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Dr. Mohammad (Faraz) Moharrami, DDS, MSc
Dr. Moharrami holds a Doctor of Dental Surgery (DDS) and a Master of Science in Medical Sciences, and he is currently completing the final year of a combined PhD and Dental Public Health specialty at the University of Toronto. As part of his residency at the Princess Margaret Cancer Centre, he has developed machine learning-based diagnostic and prognostic models using structured data and applied causal machine learning to uncover various treatment effects in head and neck cancer.

His work also extends to unstructured imagery, including oral photographs[1] and radiographs, where he develops deep learning-based computer vision models using convolutional neural networks (CNNs) and Transformer architectures.[2] Dr. Moharrami is also a data scientist at Statistics Canada in the Innovation and Special Projects section, where he designs novel data-collection strategies and implements artificial intelligence (AI) solutions, including large language models (LLMs), to enhance the effectiveness and efficiency of existing workflows. Dr. Moharrami is committed to democratizing AI in healthcare and expanding public access to these technologies.

Additional Resources
Detecting dental caries on oral photographs using artificial intelligence: A systematic review, Moharrami, M; Farmer, J; Singhal, S; Watson, E; Glogauer, M; et al. *Oral Diseases*, July 1, 2023, p 1-19 https://onlinelibrary.wiley.com/doi/full/10.1111/odi.14659

Deep learning for detecting dental plaque and gingivitis from oral photographs: A systematic review, Moharrami, M; Vahab, E; Bagherianlemraski, M; Hemmati, G; Singhal, S; Quiñonez, C; Schwendicke, F; Glogauer, M. *Community Dentistry and Oral Epidemiology*, June 26, 2025, p 1-16
https://onlinelibrary.wiley.com/doi/10.1111/cdoe.70001

Prognosing post-treatment outcomes of head and neck cancer using structured data and machine learning: A systematic review, Moharrami, M; Zavareh, P; Watson, E; Singhal, S; Johnson, A; Hosni, A; Quiñonez, C; Glogauer, M. *PLoS One*, Volume 19, Issue 7, July 24, 2024, p 1-35
https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0307531

[1] Refer to Episode 102 for discussion on the use of AI to detect dental caries on oral photographs.
[2] Refer to Episode 85 for an overview of artificial intelligence in oral healthcare.

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