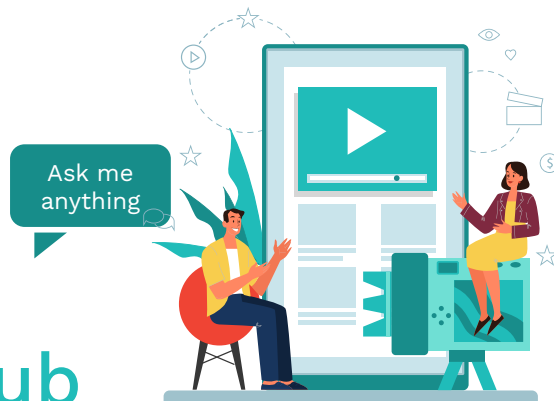




Virtual Journal club



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Digital medicine and the curse of dimensionality

December 14th, 2021
11a ET



Visar Berisha

Associate Professor, **Arizona State University** and Chief
Analytics Officer at **Aural Analytics**



Jen Goldsack

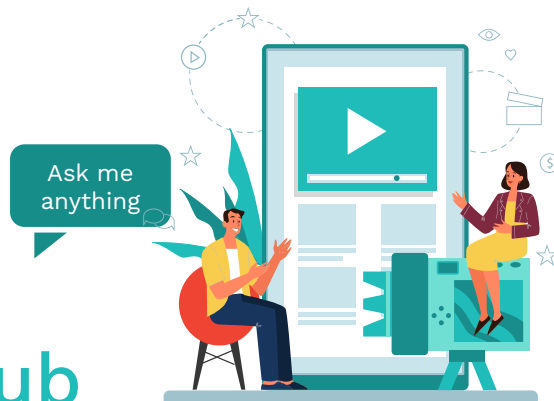
Chief Executive Officer
DiMe

But first, housekeeping

- Please note today's session is being recorded
- To ask a question for discussion during Q&A, please:
 - Either 'raise your hand' in the participant window and moderator will unmute you to ask your question live, or
 - Type your question into the chat box
- Slides and recording will be available after today's session



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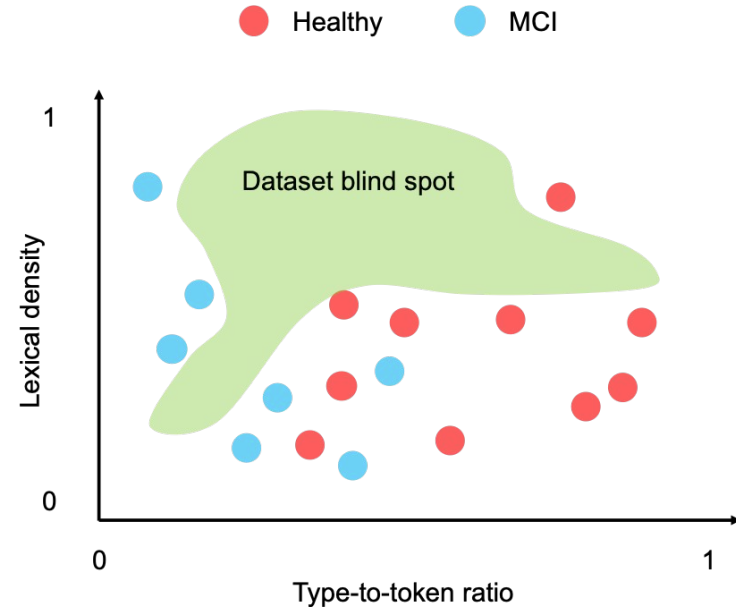
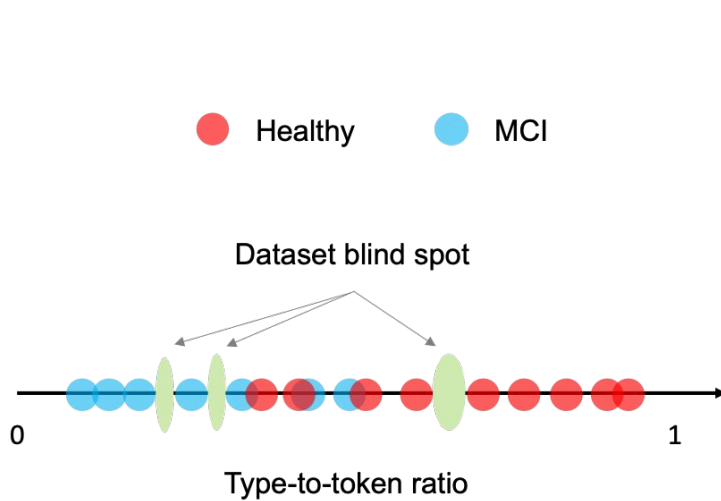
Associate Professor, **Arizona State University** and Chief
Analytics Officer at **Aural Analytics**



Jen Goldsack

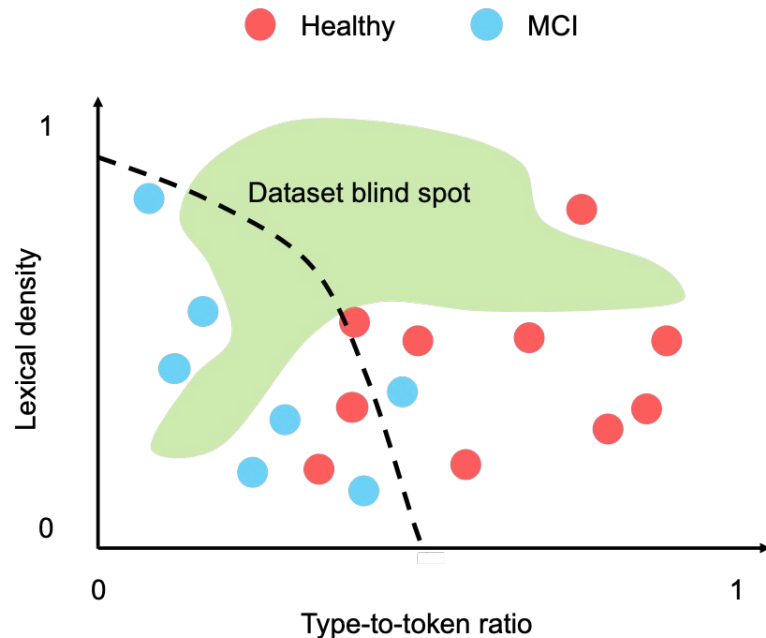
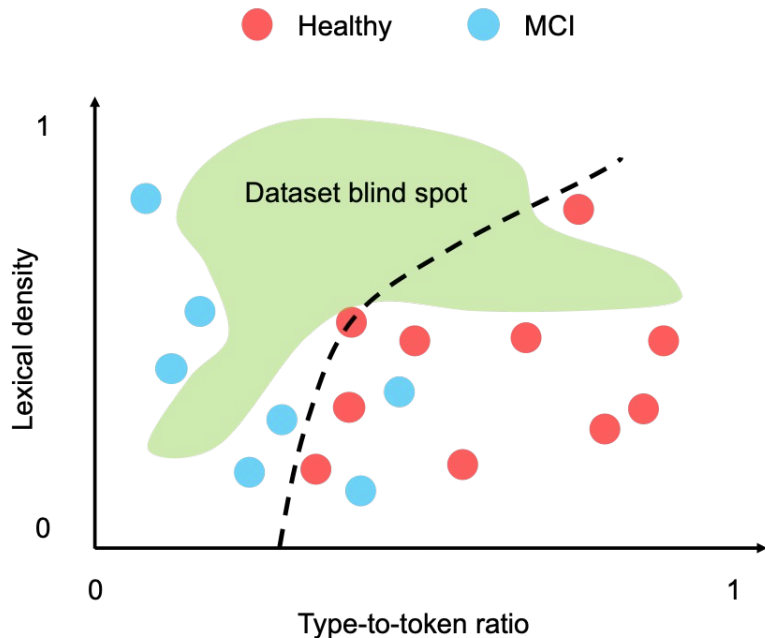
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The consequences of increased dimensionality



The volume of the blind spot increases exponentially with increasing problem dimension

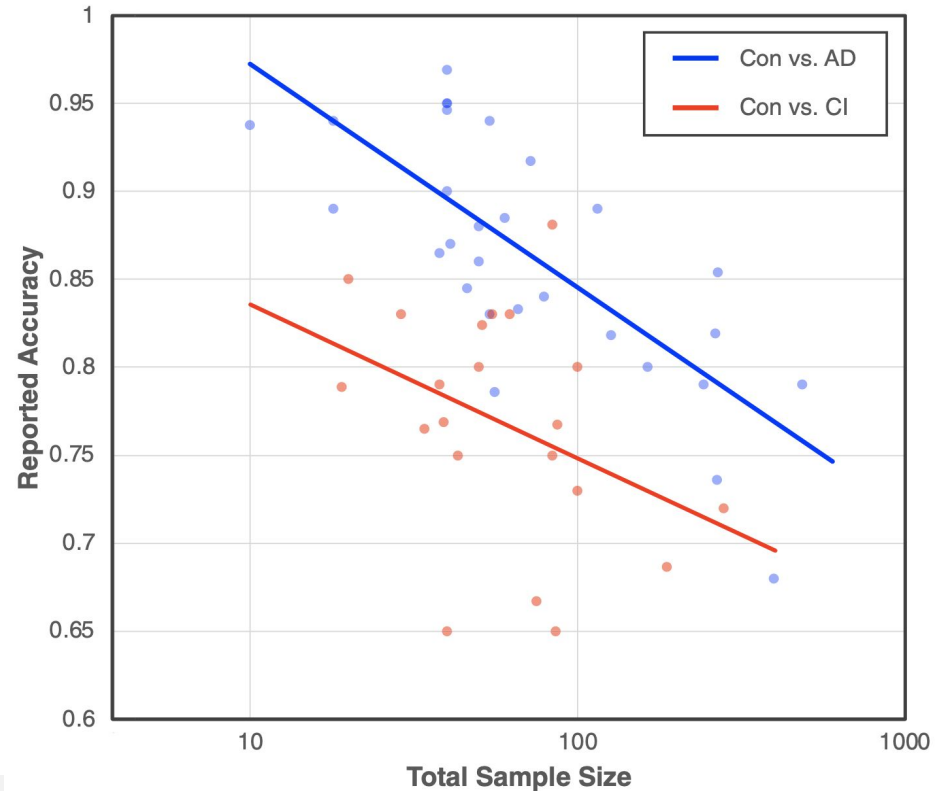
Challenges to robust model development



Which model is better?

Challenges to robust model development

Overoptimistic accuracy estimates for high-dimensional clinical AI models

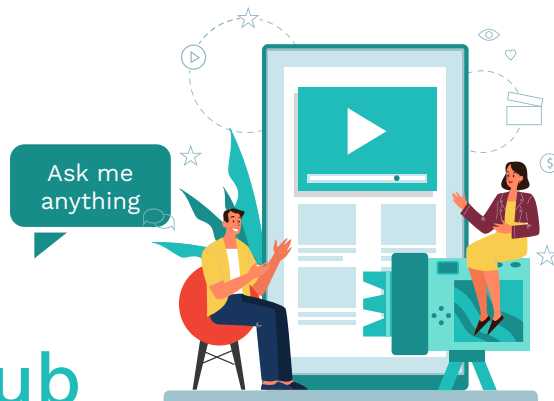


Suggestions for building clinical AI models

- Reduce the dimensionality of the data generating process via active data acquisition
- Collect large, representative training data appropriate for the task at hand
- Use features relevant for the task at hand
- Check for distribution shift post deployment and recalibrate the model if necessary



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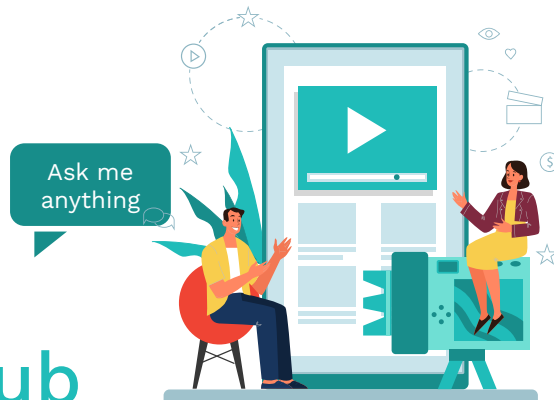
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Cindy Zadikoff, MD

Medical Director, CPP Industry
Co-Director
Abbvie



Martijn Müller, PhD

Senior Scientific Director
Critical Path Institute



Mark Frasier, MD

Chief Science Officer, Research
Programs
Michael J. Fox Foundation



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Listen up! Using digital tools when
designing patient-centric clinical
trials

January 11th, 2022 11a ET



THANK YOU

Visar Berisha



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