Priming Large Language Models for Personalized Healthcare

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Presenter: Dr M. Vardhan Margaret Butler Fellow, Argonne National Laboratory

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Breaking clinical data logiam with synthetic data using generative models

Presenter Information



- Margaret Butler Fellow,
 - Argonne National Laboratory, 09/2022 –
- Visiting Researcher,
 - Google Research, Al and Health, 09-2021 08/2022
- PhD, Biomedical Engineering
 - Duke University, 08/2021

Research Interest Areas :

Large Language Models, Computational Fluid Dynamics, High Performance Computing, Biohealth Informatics, Personalized Healthcare **Google Scholar :** https://scholar.google.com/citations?user=mZZ7XKgAAAAJ&hl=en&oi=ao

Evaluation

Large Language Models can be finetuned in several ways

- Pretraining
- Fine-tuning
 - Supervised _
 - Instruction
- Context Setting
 - Prompting
 - Priming

Large Language Models

 LLMs as personalized health coach

 Background
 Computational Model
 Evaluation
 Conclusions

 Designing Personalized Heath Coach – Priming LLMs using Behavior Science,

 Fogg's Behavioral Model



• Instruction



- Prompting
- Priming :



LLMs as personalized health coach

Computational Model

Evaluation

Conclusions

Conclusions

Reviewers

preferred the BS-

primed LLM

responses with

respect to user

experience and

appropriateness



Proof of concept study of how fundamental BS models can be used to encode user information in LLMs

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