

NAACL-HLT 2021

Natural Language Processing for Medical Conversations

The Proceedings of the Second Workshop

June 6, 2021

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Introduction

Welcome to the second workshop on natural language processing for medical conversations.

Technological advancements have been transforming healthcare rapidly in the past several years. This has been further catalyzed by the COVID-19 pandemic. Several policy changes have been made by the government with added flexibility to enable remote treatment of patients. COVID-19, its symptoms, and medications are being widely discussed on social media. These discussions are also being analyzed by researchers from various perspectives. Moreover, with the availability of wearable fitness devices, these interactions are not limited to a pandemic but go much further. While medical discussions on public forums were prevalent in the past, their prevalence is now highlighted due to the scale of the pandemic.

To address healthcare consumers, Electronic Health Record (EHR) companies have been working to make health data of patients easily available to patients. More recently, technology companies are also stepping in. Healthcare providers are also making use of automatic speech recognition (ASR) and natural language understanding to understand doctor-patient conversations and generate medical documentation automatically. Finally, smart speakers are now common in households and users interact with them about personal and public health issues.

While applying NLP to open domain is getting increasingly popular, medical conversations present unique challenges and opportunities for impact. After our successful event last year, we are excited to continue the cross-pollination between NLP researchers and medical practitioners. The goal of this workshop is to discuss state-of-the-art approaches in conversational AI, as well as share insights and challenges when applied in healthcare. This is critical in order to bridge existing gaps between research and real-world product deployments, this will further shed light on future directions.

We received 19 submissions this year, and accepted 9 reviewed papers in the proceedings of the workshop. This will be a one-day workshop including keynotes, spotlight talks, posters, and panel sessions.

Organizing Committee

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- Sandeep Konam (Abridge)
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Conference Program

Sunday, June 6, 2021

9:00 – 9:15	Opening Remarks
9:15 – 9:50	Invited Talk 1
10:00 – 10:15	Paper Presentation: <i>Gathering Information and Engaging the User ComBot: A Task-Based, Serendipitous Dialog Model for Patient-Doctor Interactions</i> Anna Liednikova, Philippe Jolivet, Alexandre Durand-Salmon and Claire Gardent
10:15 – 10:30	Paper Presentation: <i>Automatic Speech-Based Checklist for Medical Simulations</i> Sapir Gershov, Yaniv Ringel, Erez Dvir, Tzvia Tsirilman, Elad Ben Zvi, Sandra Braun, Aeyal Raz and Shlomi Laufer
10:30 – 11:00	Break
11:00 – 11:35	Invited Talk 2
11:45 – 12:00	Paper Presentation: <i>Assertion Detection in Clinical Notes: Medical Language Models to the Rescue?</i> Betty van Aken, Ivana Trajanovska, Amy Siu, Manuel Mayrdorfer, Klemens Budde and Alexander Loeser
12:00 – 12:15	Paper Presentation: <i>Medically Aware GPT-3 as a Data Generator for Medical Dialogue Summarization</i> Bharath Chintagunta, Namit Katariya, Xavier Amatriain and Anitha Kannan
12:15 – 13:15	Lunch Break
13:15 – 13:50	Spotlight Talk Sponsor 3M
14:00 – 15:00	Poster Session
15:00 – 15:30	Break
15:30 – 16:05	Invited Talk 3
16:15 – 16:30	Best Paper Awards

