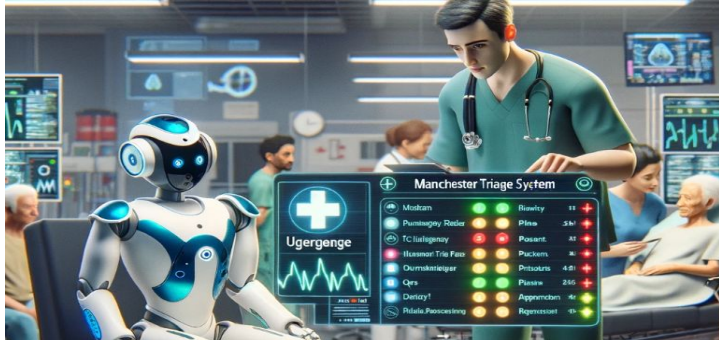




Challenges Healthcare Hackathon 29-31.5.2024
English version - preliminary status Version 0.91

#	Challenge	Team	Partner	Status
1	Emergency medicine and emergency departments - current problems in triage and emergency care solved by AI	Emergency medicine team	Mediktor, MySympto, Vamed, IBM, etc.	set
2	Strengthening women's health with powerful AI - the Bavarian university hospitals are putting AI into practice. On the island, however, they also want to look at the fundamental added value of AI in terms of health economics.	Team AI in imaging	VirtuHance, Siemens, Google, IBM etc.	Finding
3	Large language models transform processes and documentation - so that care can focus on the patient	Various teams and MyScribe	Various partners	set
4	Large language models transform processes and documentation - so that doctors can concentrate on the patient	Various teams	Various partners	set
5	Everyone is talking about AI - but how can you empower employees to use it quickly and flexibly? This challenge provides the answer.	UK Halle	Various partners	Finding
6	AI in intensive care medicine - algorithms relieve staff and help with targeted treatment	Team Charite with Peter Gocke	Diverse Partner	set
7	Artificial intelligence controls staffing requirements and relieves the burden on medicine and nursing in qualified duty scheduling	Team UK Frankfurt and UK Mainz	Atoss, Fraunhofer, and various	Finding



Participants

- Startup Mediktor, Startup MySympto
- Vamed with infrastructure for triage via a telemedical cabin (requested)
- Various clinics and participants from medical practices and other disciplines with an interest in (telemedically) supported screening and triage
- Prof. Nau (UzL Lübeck)
- Area Prof. Gräsner (iRuN Kiel)

Lead
Sebastian Wolfrum
Domagoj Schunk

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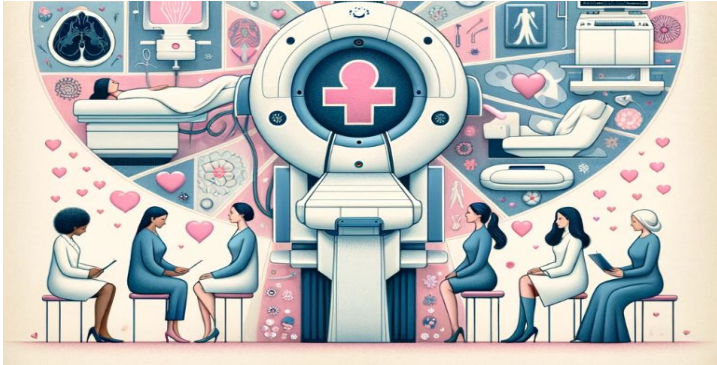
#intelligentetriage

Chapter Emergency
Medicine/Intensive Care Medicine

CHALLENGE

Description and objectives of the challenge

Various aspects are to be bundled on this challenge theme island. Under the primary lead of an exemplary challenge of the emergency departments in Kiel and Lübeck together with the startup Mediktor, triage in other contexts, such as premedication consultations, will be processed with the existing tools and tested in practice. It is also planned to have various AIs and LLMs tested by medical professionals in educational mini-workshops with public test data from Kaggle, among others - the MySympto team will take care of this with its own and third-party algorithms. The use of extended hardware and infrastructure is also in demand, as such AI-based triage can be used in "telemedicine booths" in workflows.



2



#kivalue

Chapter Imaging and AI with a special focus on women's health

Participants

- VirtuHance
- IBM, Google, Siemens
- UKSH / Prof. Schramm
- Other participants, including in the field of imaging and health economic effects of AI

Lead
Tim Ehbauer
Peter Schramm

CHALLENGE

Description and objectives of the challenge

AI creates value in various areas and can significantly improve workflows and fields of medicine where specific differences and imaging procedures are important. This challenge will focus on various aspects - together with VirtuHance and other partners, the processing of radiological imaging specifically for women's medicine will be highlighted. In addition, the aim is to take a fundamental look at the added value of AI. Health economic key figures will show which application brings which value - in this way, the use of AI will also be promoted even more strongly among cost bearers.



Participants

- myScribe
- IBM and Google
- Various teams from the care sector
- Various (university) clinics

Lead
Ira Stoll
Jenny Klein

3



#llmcares

Chapter Large Language Models

CHALLENGE

Description and objectives of the challenge

Large language models are currently transforming many processes. Various care teams have come together at the UKSH and, together with start-ups and IBM & Google, have developed use cases that are to be worked on here in various formats. On the one hand, the best process for integrating the use cases is to be developed in design thinking formats, while on the other hand the impact on documentation is to be evaluated. Together with the start-ups from the field of LLMs, a running prototype for relieving the burden of care will also be built and demonstrated at the hackathon - it is exciting to evaluate the different variants from a technological perspective with the major partners in the industry.



Participants

- myScribe
- IBM and Google
- Various teams from the care sector
- Various (university) clinics

Lead
offen

4



#llmedicalhacks

Chapter Large Language Models

CHALLENGE

Description and objectives of the challenge

This challenge also deals with large language models, but focuses here on the topic of writing doctors' letters. On the one hand, the various ideas are to be explored - from the classic takeover of the activity of writing doctors' letters by LLMs to the writing of specially patient-understandable formats and extended documentation activities. This challenge will also use design-thinking workshops and the creation of real working prototypes. Another aspect will be the integration into HIS systems and the necessary technical interfaces - there are already various solutions that are currently being implemented in practice.

Everyone is talking about AI - but how can you empower employees to use it quickly and flexibly? This challenge provides the answer.



Participants

- Industry partner with low-code platform
- AI partner - flexible
- Google as a partner for the avatars
- IBM can be integrated as coaches, possibly with WatsonX networkable challenge
- Other university hospitals welcome

Lead UK Halle
Susann Homann
Sophie Bendix

5



#lowcodehighki

Chapter Enabling

CHALLENGE

Description and objectives of the challenge

Halle University Hospital has been working on the topic of low code and enabling employees to work with IT applications through simple and flexible use of low code since 2023. Put simply, employees should be given more flexibility in the use of software through easy-to-understand mini-programs and be trained or provided with these. In 2024, the aim is to further develop this approach and increase its use in practice: The LowCode platform is to be networked with interfaces to AI and LLM applications. This will initially focus on the administrative area in hospitals - this has been neglected in Challenges to date and should therefore be the focus here. The idea of avatar technology is also to be implemented and introduced - the Google teams are helping here.



6



#intensiveki

**Chapter Emergency
Medicine/Intensive Care Medicine**

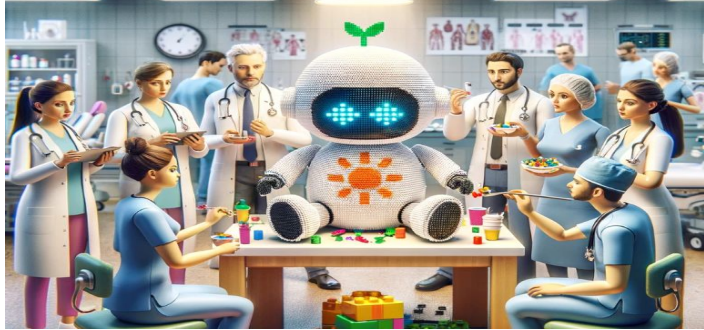
Participants

- Charite University Medicine Berlin
- AI partner - flexible
- IBM can be integrated as coaches, possibly challenge networkable with WatsonX
- Other university hospitals welcome

**Lead UK Berlin
Peter Gocke****CHALLENGE**

Description and objectives of the challenge

Charité Universitätsmedizin Berlin has looked in detail at the use of AI in the field of intensive care medicine - especially in these labor-intensive areas, there are many opportunities to relieve staff and many untapped data treasures that can provide valuable help in the treatment of patients. The topic island also has the potential to link up with many other topics - e.g. triage and models relating to the use of large language models. On the island, the aim is to work with data and various AI models using design thinking, but above all to demonstrate practical applications and create advanced prototypes in this field. Partners are always welcome here, as in all other islands.



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#educativechallenges

Chapter Enabling

Participants

- IBM and Google
- Data provided by Kaggle Platform
- Free participants welcome
- Specialists from clinics welcome

Lead UKSH
und IBM

kaggle™

CHALLENGE

Description and objectives of the challenge

In order to be able to work properly with AI and large language models, users need to be able to try out their questions in practice. To do this, there is often a lack of data and simple AI models with which to experiment and sharpen the idea for practical application. This challenge is therefore made up of many small mini-challenges designed to allow participants to do just that: Together with technical experts, AI experts and interested participants, simply "try out" whether something works in practice. Real or synthetic data is available from the Kaggle platform, while AI is provided by the various technology partners. Simply register with your own idea and discuss with us what can be implemented.