

ELEMENTA

A voice assistant for biomedical researchers

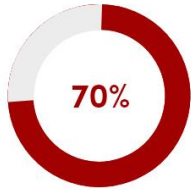
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Reproducibility crisis in the lab

Based on a research study of 1500 biomedical researchers, they are not able to reproduce scientific experiments.



Other researchers experiments



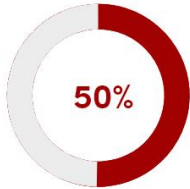
Failure of drug market delivery



Loss of data quality and credibility of science



Waste of \$US 240 B/ year, around 85% of total research investments



Own experiments



Documentation

- One of the causes of the reproducibility crisis is caused by the burden of documentation.
- Currently, researchers use two tools: paper notebooks in the lab and Electronic Lab Notebooks (ELN's) outside the lab for hygienic purposes.
- This means researchers have to: write all the notes on paper and afterwards on the ELN (double work), or run back and forth between the laptop and their experiment (lose focus).



Loss of productivity
and happiness in the lab



30% time spend on
documenting



Solution

- Phone application, powered by voice
- Hands free documentation
- Add-on for Electronic Lab Notebooks!
- Pilot project showed that the researcher **saved time** and had **better data quality**



Project & Challenges

To further develop Elementa as a voice assistant, it needs to be able to answer questions and be truly knowledgeable. We are looking for partners that help us in achieving this.

To realize this we have the following challenges:

- **Develop highly sophisticated Speech Recognition (NLP), that understands the language of biomedical researchers.**
- **Find a database (API) that can be used to train a knowledge base for intelligent Q&A.**