

Reducing Documentation Burden in Healthcare with AI: Automated Summary of Patient-Healthcare Provider Conversation



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Introduction

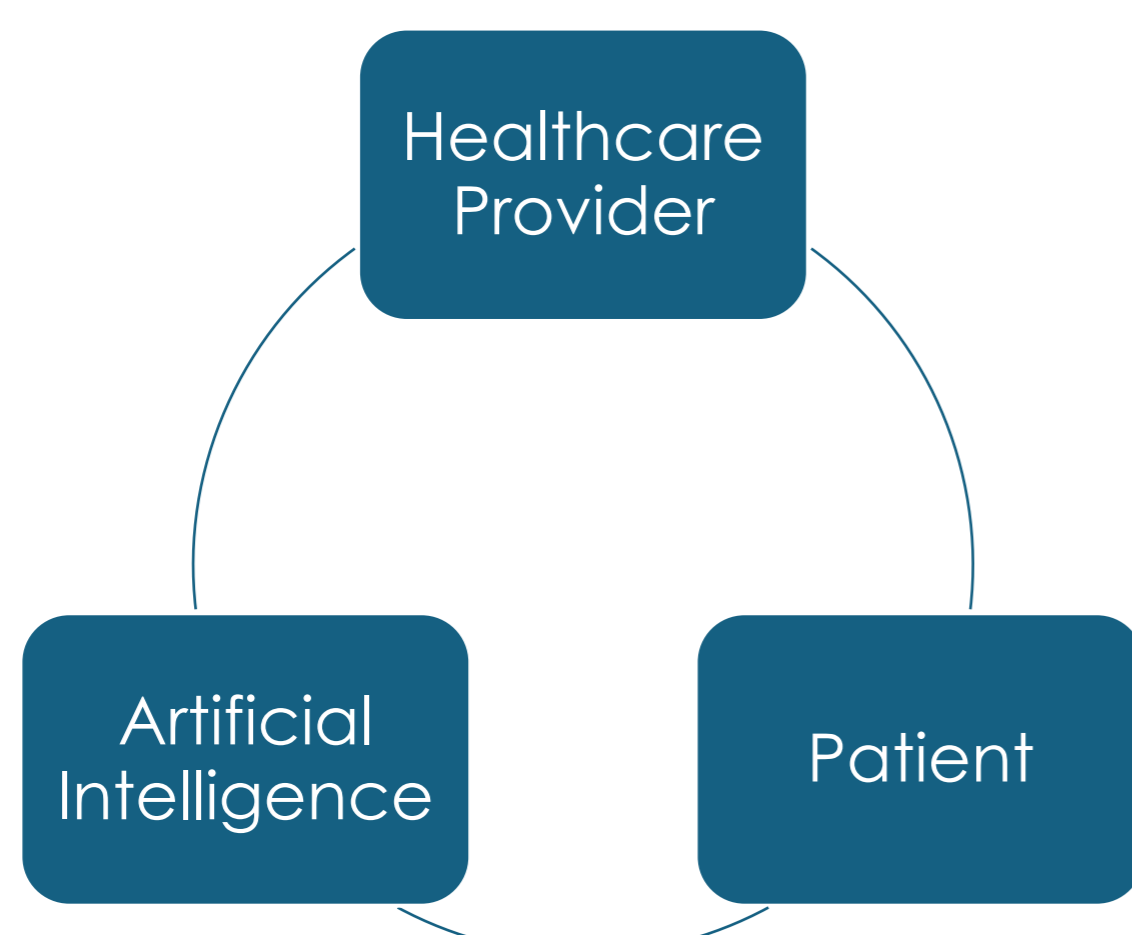
- Documentation of patient-healthcare provider (HP) conversations is crucial to the healthcare system.
- Healthcare providers spend 27 % of their time on documentation tasks (Ammenwerth & Spötl, 2009).
- How can the time and workload of HPs associated with documentation be reduced?

Objectives

- Investigate the experiences of HPs using automated transcription and summary tools.
- Analyze the impact of these tools on the patient- HP relationship and HP workload.
- Address key questions:
 - How does automated summary affect daily practice and workload of HPs?
 - What impact does it have on the patient-HP relationship?
 - What are the advantages, disadvantages, and challenges of using automated summary tools?

Research Framework

- User Empowerment Framework (Kim & Gupta, 2014)
 - When technology aligns with user needs, it can enhance user empowerment across four dimensions: Competence, Impact, Meaning, and Self-determination.
 - These enhancements can lead to improved satisfaction and productivity among HPs, potentially transforming their experience with documentation processes and interaction with patients.



Autoscriber Overview



- Startup Offering an AI-Powered Tool
 - Provides an automated summary solution.
 - Aids in efficient documentation of patient-HP conversations.
 - Records and transcribes conversations into editable summaries.

Methodology

- Qualitative Research Design
 - Pre-use interviews with HPs to assess expectations and willingness to use the technology.
 - Observe patient-HP interactions during the use of the software.
 - Post-use interviews to gather feedback on actual user experiences and perceived advantages and disadvantages.

Aim

- Address knowledge gaps regarding the impact of digital, AI-powered documentation tools on medical practice.
- Offer actionable insights for HPs and software developers.
- Promote future research to explore the role and influence of such technologies in medical practice through both qualitative and quantitative methods.
- Win one of the best poster awards.

References

- Ammenwerth, E., & Spötl, H.-P. (2009). The time needed for clinical documentation versus direct patient care. A work-sampling analysis of physicians' activities. *Methods of Information in Medicine*, 48(1), 84–91.
- Kim, H.-W., & Gupta, S. (2014). A User Empowerment Approach to Information Systems Infusion. *IEEE Transactions on Engineering Management*, 61(4), 656–668. <https://doi.org/10.1109/TEM.2014.2354693>