SFO TECHNOLOGIES
A NeST Group Company

CASE STUDY

AI POWERED VOICE INTEGRATION FOR EMR SOFTWARE

Customer

A leading Electronic Medical Record software provider in Canada.

Business Need/Challenges

As Electronic Medical Records ("EMRs") have been developed and adopted, the capability for codified data has focused on billing, reimbursement and other operational data - beyond the data solely required for high-quality care. This has resulted in productivity loss among physicians, who are spending over half their working time in front of the screen. This means they are spending more time on documentation and less time with their patients.

EMRs are hurting the care relationship. They take away eye contact from medical encounters, and clinicians are thinking about the mechanics of documentation, rather than the full implications of the symptoms and findings. Moreover, physicians' work-life satisfaction has been dropping. At times, they feel like they are professionally reduced to data entry clerks, and professional burnout is on the rise. Eighty percent of U.S. doctors believe virtual assistants would drastically change how they use their EMRs, freeing time they can then spend with patients.

Challenges

- Data Entry - 43% of clinician time (American Journal, May 2015)
- Digitization Burn-out - 50% of physicians (Mayo Clinic, August 2015)
- Fewer Patients Seen - 27% of time spent with patients (Annals of Internal Medicine, September 2016)
- A "multi-billion dollar problem" in USA and Canada

The Solution in Brief

SFO provided modernized text-to-speech solutions with AI powered technology, automation and voice recognition that complement existing clinical workflows through their intuitive cloud-based platform. Our solutions enable better patient care through use of assistive digital tools across variety of areas thereby helping global health-care providers reduce the burden of manual processing and eradicate manual operations that are prone to error.

SFO's virtual assistant solution provides sophisticated conversational dialogues and healthcare skills that automate high value clinical tasks from patient scheduling to chart search to computerized physician order entry (CPOE), prescription management, voice driven lab order — just to name a few.

- A comprehensive virtual assistant solution for doctors.
- A voice driven solution, avoiding operation by keyboard and mouse.
- It helps doctors reduce consultation time.
- An intelligent prescription module with new generation interactive interfaces.
- Real time med-to-med interaction checking.
- Integration with pharmacies, using block chain based prescription technology.
- Print/fax Integration.
- A tenant management Web Interface.
- Innovative technology stack used to adapt AI interfaces.

Technologies Used

- Microsoft Azure Bot framework
- Microsoft cognitive services
- LUIS – Language Understanding Intelligent Service
- Node.js
- React.js
- Java

SFO's Role

Design, development and system testing of the solution in collaboration with the customer engineering team