CASE STUDY

Increased efficiency thanks to speech recognition

SVA St. Gallen increases the quality of medical expert reports

Staff at the Regionaler Ärztlicher Dienst (RAD, Regional Medical Service) Eastern Switzerland dictate reports for the assessment of the insurees' inability to work with the online speech recognition software Dragon Medical Practice Edition.

The Regionaler Ärztlicher Dienst (RAD) Eastern Switzerland, domiciled in the SVA St.Gallen, supports with 40 male and female doctors the invalidity insurance offices in the cantons Appenzell A.Rh., Appenzell I.Rh., Graubünden, St. Gallen and Thurgau as well as the Principality of Liechtenstein in drawing up medical expert reports in the context of the inability to work. Together, they draw up an average of 1000 reports per week, which substantiate the decision about rehabilitation and pensions for insurees.

In January 2014, the language recognition software Dragon Medical was installed in cooperation with the company in2comp. The staff are now able to record verbally any kind of document – from notes to legal reports. With the help of speech recognition, the speed of documentation and, moreover, the quality of the reports has increased.

Word processing from dictation was reaching its limits
The increasing number of enquiries took the staff of the RAD to its limits. The doctors predominantly drew up the reports via dictation. Afterwards, the secretary's office typed up from the cassette, where the final report was also typed. As the number of documents – including opinions, minutes, reports, general correspondence as well as assessments – increased, more doctors were employed. The number of staff in the secretary's office did not increase in proportion with this fact. This led to the doctors increasingly having to write themselves.

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In order to alleviate this unfavourable situation for the staff and the insurer, the decision was made to install the speech recognition software to assist. "On the one hand, we wanted to simplify word processing and input so that the doctors were able to process more cases in the same time and, on the other hand, shorten and speed up work processes, as physically going to the secretary's office is no longer needed", Bruno Lautenschlager, Head of Informatics at the SVA St. Gallen, explaining the objectives. "Perspectively, the employment of more staff in the secretary's office is to be avoided, working hours used more effectively and the quality of the documents improved."

Any volunteers?

In 2013, testing of the speech recognition software Dragon Medical was started at the RAD. in2comp conducted the professional implementation and training. "The cooperation with in2comp was and still is very pleasant to this day, above all, because when I have urgent support queries, I always get hold of someone within an expedient period. In addition, the training courses were always well prepared and effective in design, which was decisive for being accepted by the users", Lautenschlager asserts. The users were able to decide for themselves when and whether they work with the speech recognition software. "An obligation from the offset would have led to resistance", Lautenschlager knows. "As well as that, the intensive care binds users at the beginning of a new introduction to many resources." This is why initially, only four doctors dealt intensively with the software at the end of 2013 before it was rolled out further in 2014. "Made curious by colleagues, staff members finally volunteered to use the speech recognition software for their work", says Lautenschlager, pleased about the high acceptance of the product. The speech recognition software is integrated into the existing IT infrastructure so that the new functions can be intuitively used on an everyday basis. "All activities for which a user used to use the keyboard can now be performed by the voice", according to Lautenschlager explaining the integration of Dragon Medical. "Whether a Word document, an archived note or an e-mail, yes, even protocols and agenda items are created via the speech recognition software."

The technological basis of the installation is a virtualised server landscape in the SVA St. Gallen; this also goes for the clients. The operating system used is Windows 7 32 Bit, as a few of the professional applications only run with this version. As a rule, Lautenschlager recommends using Windows 64 Bit for the speech recognition software. "Due to the limitations of our operating system, speech recognition sometimes runs a little bumpy and the display of the dictated text cannot keep up with the speed of the user's speech. This has led to a few doctors reverting to a keyboard" Lautenschlager regrets.

Good preparation ensures success

Due to the linguistic complexity of the documents, intensive prep work was necessary before the roll-out could be started. Due to the fact that the RAD deals with diversified problems of a medical insurance context and reviews individual work situations, the word stem contains both technical terms of various medical specialisations as well as scores of terms from the working context of the insurees. This was included with the help of existing reports that were read out to the system. "The Dragon Medical system by Nuance brought along an excellent medical lexicon. Moreover, the system learns reliably and fast. After the initial input of the vocabulary, all users today continuously add new words to the word stem", the project manager, Bruno Lautenschlager, explains.

Besides the advantages that the vocabulary can be shared, the system provides the assistance hoped for, especially for those doctors that do not work with the 10-finger system. Despite the system-related limitations in performance, the degree of satisfaction is high. "As soon as we have the performance under control, an advance in the level of acceptance will go through the rows of doctors", Lautenschlager feels certain.

Workloads can be managed better with speech recognition

The implementation ran smoothly and the quality of work has increased. As speaking is known to be easier than typing, speech recognition can motivate doctors to argue and justify in more detail, which can have a positive effect on appeal proceedings. Lautenschlager cannot, however, make a statement about the reduction in time or the resulting costs. "With us, the processing time depends on several factors such as the complexity of the case, the medical facts and various other factors. This is the reason why I can't put a number on it that says by how many minutes the documentation time has been reduced. My gut feeling clearly says that the processing time of a case has been reduced."

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