

Intelligent information retrieval in the MedTech segment

Background

lexoro GmbH sees itself as a technology company with a focus on intelligent automation. The focus is on product development and approval processes in the following industries: MedTech, pharmaceuticals and chemicals. lexoro combines software robotics (RPA) with machine learning and NLP (natural language processing). Here, the company is one of the innovators in Germany. With its own core technology AUTO-X, the company has worked on diverse application scenarios and defined them into focused solution modules. We are pleased to present some of these innovations in more detail as part of arcoro CONNECT.

The database crawler

The database crawler from lexoro uses advanced (web) crawler technology that searches with the help of software robots. Classic sources are websites, social media platforms, directories, emails and database systems. Particularly relevant for Med-Tech companies: Regulatory databases, MAUDE, BfArM and the FDA Recall Database.

Due to the ever-increasing amount of data in various databases and websites for the medical technology and pharmaceutical industry, it is almost impossible to read out all relevant information and make it usable. This is an increasingly difficult task, especially with the new regulatory requirements imposed by MDR. Lexoro has solved this challenge with an AUTO-X-based crawler technology.

Application

- The AUTO-X database crawler automates and accelerates the research process and information retrieval
- Applicable to any desired database in different countries
- Search strategy with previously defined search criteria (keywords, topics, time period, etc.)
- Possible for a wide variety of areas within the medical technology & pharmaceutical industry and any type of search or research
- Fully automated, in the shortest possible time, 100% error-free through RPA crawler technology





Procedure

It is possible to make any available database & source, which is accessed daily, accessible for the AUTO-X Crawler. Usually the necessary parameters regarding search strategy and databases are filled in manually and individually in a web interface & saved for later searches. However, it is also possible to fill out a template document and thus upload the search strategy.

Once the databases and the search strategy have been defined, the AUTO-X crawler sets off with these specifications and implements the strategy on the respective databases. Depending on the size, complexity and scope of the search, hits & results can be delivered automatically within a very short time. Once the search is complete, the results can – depending on the customer's requirements – be viewed in the system, exported as a list in any format or, for example, transferred directly to another ERP system. Furthermore, features & functions, such as saving the search, displaying it as a dashboard can be developed, implemented and customized according to the customer's needs.

Since many recognized sources, approvals or other research-relevant topics are now processed in databases, an automated crawler offers strong advantages & effects:

- Enormous reduction in lead time for a process that always runs in the same way
- Automatic database search with results & results in real time
- I00% error-free & robust Robotic Process Automation crawler technology
- Relieve and inspire employees by saving time better analysis possible
- Rapid solution development according to specific needs directly measurable ROI

Admission databases

In the areas of Regulatory & Clinical Affairs, Post Market Surveillance or PMCF, PSUR & PMS Reporting as well as other approval-relevant disciplines, it is enormously important to collect information about products. Be it in the development & testing phase to find undesired side effects & drug risks, or in the post-market phase to find and monitor incidents & occurrences.

In these cases, the AUTO-X database crawler – specially developed for biomedical and regulatory databases – is used. Just as with the classic database crawler, any database can be searched for hits & for example new approvals, active ingredients & substances or many other attributes according to previously defined search criteria:

- Classic biomedical databases are: PubMed, Embase, AMNOG, ABDA, MEDLINE, etc.
- Classic regulatory databases: MAUDE, FDA, BfArM, EudraVigilance, foreign regulatory databases, etc.





Advantages

Software robotics and crawler technology combine multiple source search intelligence under one roof. Delivers results highly automated and redundancy-free. By coupling with NLP components and machine learning, evaluations can also be automated up to 75%.

We would be happy to organize an individual appointment with an expert from the MedTech area of the lexoro Group. Just let us know what exactly interests you. With arcoro CONNECT, we will take care of networking and establishing contacts.

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