

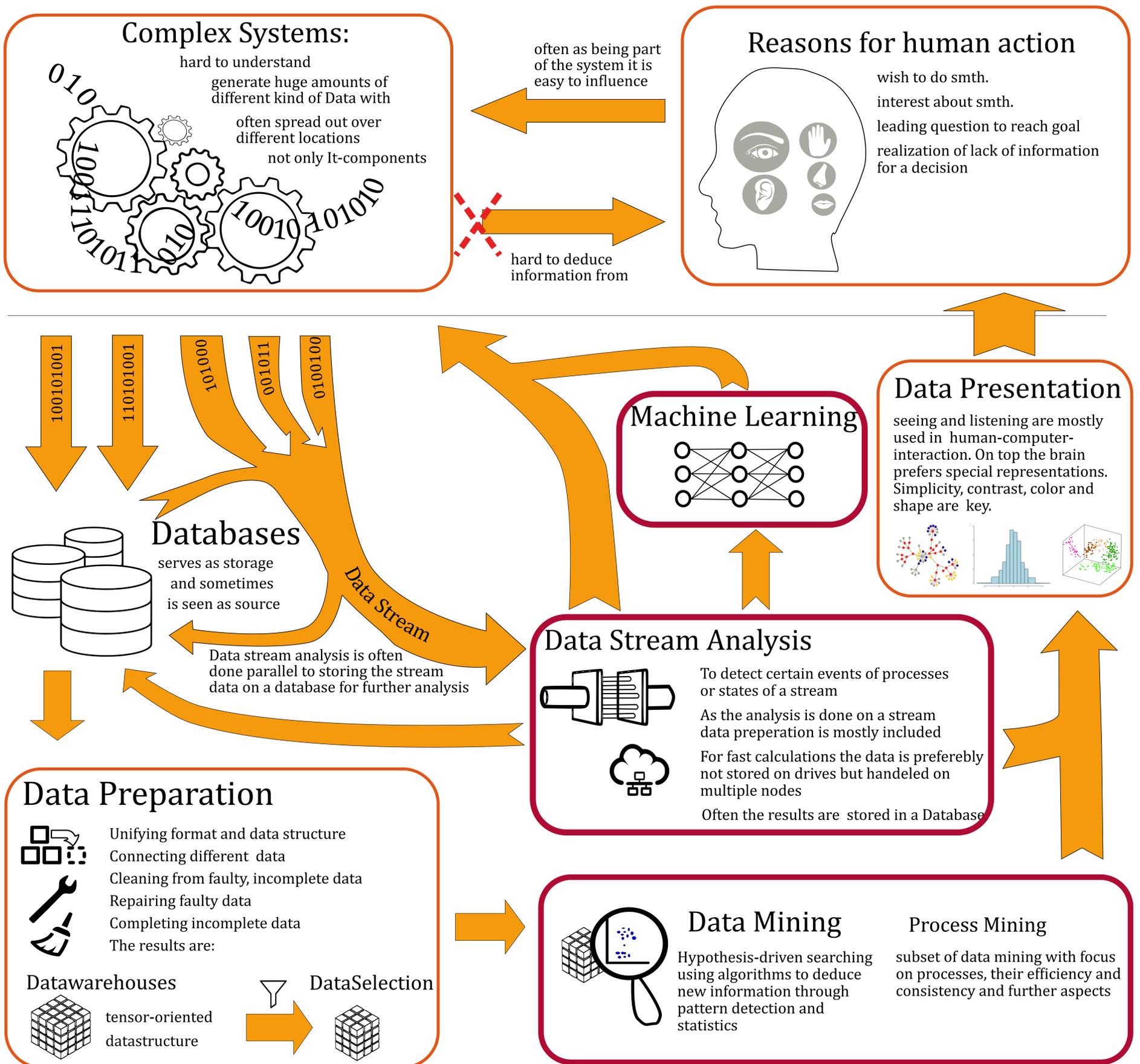
Aspects of Big Data in Complex Systems

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This work aims to structure the different aspects of big data to visualize multiple combinations of paths of a human-system-interaction. The aim of humans to understand better complex systems for various reasons is the underlying motive to do Big-Data-Analysis in the first place. With it comes the goal to use algorithms on big data in automated processes. In this case the borders between the system and Big-Data-Analysis becomes blurr.

The map is the result of a series of lectures by various companies and players in the field of big data at the HPI Potsdam. The arrows represent an information or data stream. An aspect is an area that in itself requires intensive study and often stands for a stage of the data processing pipeline. This map serves the purpose of a discussion of which fields of big-Data will flourish the most (marked red).



Outlook

Up to now, Big Data is mainly used by companies as an analysis tool, either for internal processes, markets or customer wishes. Many data are generated but for a long time they couldn't entirely be used. Thus, it mainly serves the information gain and the decision making. Due to increased machine learning and greater computing speed on a growing number of nodes, however, it is expected in the future that big data will increasingly serve the economical purposes of giving solutions to desires. Similar to many traffic apps, the end user is no longer interested in a detailed data analysis but simply uses the fastest way to go from A to B.

Discussion

Obviously our Data Input and the generated Data need a lot of preparation. It seems that new systems should also be focusing on a different paradigm of human computer-interaction. Maybe instead of analysing each and every step of a user, a different input would lead to a valuable and more transparent way of data-collection.