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Big Data: Generation of Information

Big data: Data analysis like looking for commercially relevant of needle in the heap of hay has served its time. Structured, objective oriented methods make commercial uses of big data.

Generation of commercially relevant knowledge from sensors and other sources of large number of generated data are more useful than only good design as hard and software. The time of casual getting to data analysis is certainly over as said by Yasmeen Ahmad, Data Scientist and Customer Success director with analysis specialist Teradata. IT provider sets up elaborated methodology in order to develop as also to implement commercially suitable analysis ideas in concurrence with customer. Important applications of such data managed solutions in firms lie in the improvement of customer experiences or the optimization of internal processes.

The long way for finding solution begins according to Ahmad mostly with a workshop. Participants of such half day to full-day presentation are the most varied interested persons from the customer firms. At the beginning as explained by the expert there is more or less expanded idea finding phase which has still much to do with analytical implements. Group work classical brainstorming interactive tables every medium is right in order to bring to light the problems from which the potential applier accepts that it is to be solved with the help of data analysis.

Generally then a prioritization and evaluation

of collected ideas which help estimate the commercial value of an idea and its makeable idea receive top priority which with higher probability is marketable and also promise of a big commercial use. With this, whether for the required data sources for marketing are at all ready at hand play naturally a role.

Multifarious implements: After this first of all actually the project exchange goes to a certain extent with surveyable projects. This should not last long – at most a couple of months according to Ahmad. It is by no means said that the solution lies of always in analytical insertion of complex algorithms. In one case of Ahmad on the occasion of data analysis workshop for journalists one bank reported, that it investigated the progress of its customers for the opening of a savings bank account. With that one must be surprised that they often had to visit the branch , thrice before it was finalized.

Reasons: Coworkers were rewarded according to the number of agreed days and not as per the success of customer meeting. That got also changed without algorithm insertion. If data analyses are the chosen methods, the application decline is exactly defined and then the availability of necessary data tested. Then teams get constituted for data performance and formalization as also for the real analyses.

Now it goes with the real data work. The data are uploaded and processed, analytical models set up and suitable implements are chosen

nevertheless the core assignments of data analyst. Four fundamental classes of algorithms for the time being for specific assignments stand at the disposal of Ahmad today. Forecasts algorithm, algorithm for segmentation or the bundle of data stock, classification algorithm and association algorithms which make visible the hidden connection. To every algorithm type there are diverse variants and each one has specific strengths and weakness which are effective to consider carefully one against the other. Criteria here are as for example the exactness and interpretability, speed, simplicity, stability or measurability of an algorithm. So neuronal networks are certainly very exact however difficult for interpretation during decision trees are highly to be interpreted but less differentiated. In addition Ahmad and her colleagues begin with that several algorithms to combine with an analytical phenomenon.

In this phase often suitable duties of data modeling are placed somewhat when important parameters only in fragments in data set are in existence. Then it is valid for other parameters or methods which can replace the parameters from time to time. Solutions for that, the expert confirms out of practice are, as individual as the

cases. There it is advantageous when data analyst can be chosen from a possibly wider tool spectrum and not limited to the offer of one's unique manufacturer or to implements. From there with analytical open platforms, sectional places are important with analytic platforms – new implements whether commercial or out of open source solutions Knime and R-workbench come with many pre-configured analytic functions. The data analysts like Ahmad writes, own new analysis algorithms in commercial surrounding against that was earlier rate.

With the so developed analysis solution, mostly previous results were achieved, which show whether the chosen hand tools suit it and the produced inspected match the expectations. For that the experts turn to algorithms out of the past data and investigate whether the result of analyses is almost similar to the result in reality. If necessary the methods be adjusted farther or made finer. Such optimizations are in future also supported by algorithm these are specially suitable for that to recognize conspicuous model.

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Greek Alphabet

α alpha	η eta	ν nu	τ tau
β beta	θ theta	ξ xi	υ upsilon
γ gamma	ι iota	\omicron omicron	ϕ phi
δ delta	κ kappa	π pi	χ chi
ϵ epsilon	λ lambda	ρ rho	ψ psi
ζ zeta	μ mu	σ sigma	ω omega