Seven Things to Know About Data Management and Artificial Intelligence

Photo byMáté Bugár

I have just returned from the **NOAH17 Conference**. During the two-day conference at Berlin's **Tempodrom**, hundreds of CEOs and founders from established champions and emerging disruptors across industries shared tips and trends in their respective digital initiatives.

I am grateful to **Justus Lumpe** and **Marco Rodzynek** for inviting me to speak on the topic of data management and for organizing such as an inspiring rendez-vous in Europe.

Whether you listened to Richard Lutz, CEO of **Deutsche Bahn**, the historical German railway company; to Mathias Döpfner, CEO of **Axel Springer**, one of the world's most successful publishers; or to Karim Morsy, CEO of Algoridimm, the 15-person editor of **Djay**, the world's only mobile application that has been honored for its design by Google, Apple and Microsoft; one common denominator emerged:

The CEOs of all these leading and yet diverse German companies embrace data and artificial intelligence.

The following are seven observations I have had from my discussions here at NOAH17:

1. Investing in algorithms has become a no brainer for large companies. Neural networks, machine learning or deep learning have now assumed their role as a center piece of corporate jargon. After IBM, Google, Facebook or Amazon, large industrial companies do their best to attract the best talent or acquire startups that have built strong algorithms (e.g. General Motors **acquired** Cruise Automation, a 40-person startup with no revenue for $1 billion).

2. Want to learn more about algorithms? The EdX online course **The Analytics Edge** or the book **The Analytics Edge**, coauthored by **MIT Professor Dimitris**

Bertsimas, offer compelling examples of how simple algorithms (e.g. linear regression) or complex algorithms (e.g. machine learning) can help and are working.

3. Garbage In Garbage Out: This popular IT motto was first used back in 1957 when United States military algorithms were yielding unexpected results. Since then, thanks to the advance of technology and math, the motto has morphed into **Garbage In Gospel Out**. Algorithms are not magic black boxes from which compelling insights arise. Verified, structured data is the right way to start. In many cases, data has to be verified by human experts who are assisted by powerful analytic tools. From there, the best algorithms can be optimized.

4. Data is alive. Monitoring medium and large companies for seven years, we have noticed that within 12 months 34 percent of executives end up holding different business titles, Seven percent of companies switch their names and three percent of companies end up belonging to another company. As such, data freshness is only as good as when it was last verified, and this can be a few seconds ago, a few days ago, or a few months ago. In other words, the data about the data (i.e. **meta data**) makes a difference.

5. Well maintaining, enriching and matching data is what makes it valued. Acquiring data is the comparatively easy part (even though it really is not so simple). Feeding massive quantity of data over time into your system so that data is actionable is the ultimate asset. This process has created strong market advantages for Google and Facebook, both of which have come to dominate the highly competitive global advertising market in less than a decade, dwarfing all other historical advertising players.

6. Passion at the top. In the successful companies with which we work, we have observed that these companies have hired early on a smart, passionate vice president of data and analytics and have their respective CEOs leading the effort (not the management but the CEO). Look at Jeff Bezos or Tim Cook as examples of this CEO-driven leadership. In other words, successful implementation stems from perseverance, rigueur and passion at a company's very top.

7. Data is an asset. To be sure, this is common sense, and simple algorithms can bring plenty. But the gems are discovered by working the data and the algorithms over and over. Solving this jigsaw requires time, trial and error. Some initiatives will fail, others will net only small returns, and some unexpected ones will bring major return. Data's return on investment is hard to evaluate upfront but experience shows that it is always worth the journey and ultimately pays off in aggregate.

In our 2017 economy, deluges of data are flooding each industry, but it is time to enthusiastically board the arch. The flood Noah encountered lasted roughly 150 days. Ours will likely be longer, but the signs are all promising that we will navigate it successfully.

Thomas Lot – The Official Board