Expert opinion

Smart Data: 8 tips to turn your data into a competitive advantage

By Nicolas Odet, Hardis Group Executive Vice President

The real challenge of Big Data is not technological: it is "business". It will necessarily involve human expertise to enrich the data and get it to "speak". How to move from Big Data to Smart Data, and transform your data into a competitive advantage in 8 points.

1. Big Data: a project, not a tool!
Hadoop, Cassandra, Mahout... Big Data is not "just" about choosing a solution. Of course, implementing technologies that can analyze and process terabytes of data is ultimately essential. But that is not the main thing: as for almost all IT projects, the tool is only a support for a business and / or operational need. In other words, cross-functional projects for using internal data and / or data generated outside the company are of interest only if they meet specific objectives and provide business value.

2. Ask the right questions
First of all, there is nothing magical about Big Data: it is not enough to "shake the tree" and wait to see what will fall out. To get the right answers, you must first ask the right questions: understand and anticipate customer behavior to define the Q scores (prediction of the purchase of a product or service), understand the mechanisms that lead to an incident to set up appropriate preventive maintenance action, analyze behavior to limit on-line fraud, etc.

3. Start with internal data
Data, both structured and unstructured, are abundant in companies: a real gold mine which is often not used properly because they are considered piecemeal within the information system, in functional, geographic or business "silos", or through business intelligence solutions offering a more or less accurate and efficient analysis of the past.
Starting with internal data appears to have originated as common sense. But how many projects do not reach fruition because of a lack of in-depth work on the structuring of data repositories?

4. Enrich and cross-reference existing data
To get existing data to "talk", they must be enriched. For example, from a date, it is possible to analyze the days of the week, weeks and / or months most conducive to an on-line purchase, and work on behavior for derivatives (day before, day after). Trends can be found by cross-referencing the results with other data (distance from sales, holidays, promotions, etc.).

5. Enrich the models with exogenous data
To refine the analysis and prediction model, many external data are available: weather, INSEE data, studies by survey institutes, social networks, connected devices, etc. The challenge of data scientists is to determine the data that are actually relevant for the model: those that make it possible to understand the mechanisms and correlations around an axis.

6. Involve business experts

The design of predictive models means involving different departments of the company (marketing, sales, production, IT, finance, customer service, etc.) and getting them to collaborate so as to integrate business and / or operational information and expertise. In our example, in order to understand the mechanisms that lead to a purchase, the model must, for example, integrate data from the information system (number of pages viewed, average time spent on the site, shopping cart, etc.) and marketing (advertising campaigns, direct marketing, loyalty programs, etc.).

7. Unlock human paradigms or do not presume what the outcome will be

To avoid the pitfall of data analysis models whose logic and result may be biased by human *a priori* viewpoints, data scientists use learning techniques and analysis, such as random decision forests. These mathematical models make it possible to identify, from a large volume of variables, the most relevant indicators for drawing up a decision graph. They make it easier to identify areas of analysis that would not necessarily have been taken into account, because of the potential paradigms of business experts.

8. Remain agnostic to transform Big Data into Smart Data

To become Smart Data, data must be enriched and analyzed agnostically, while making use of human intelligence. With the processing capacity of Big Data tools and an almost unlimited scope in all business sectors, there is no doubt that predictive models have a promising future in the coming years for their ability to turn data into a competitive advantage.

About the author

Nicolas Odet, Hardis Group Executive Vice President

Nicolas Odet joined Hardis in 2000 and successively held the positions of Head of Sales and Marketing in the New Technologies Skills department, Director of the Infrastructure and Facilities Management Department from 2006 to 2008, and Director of Services, Marketing and communication from 2009 to 2012. In particular, he led the transformation of Hardis' offering to cloud computing. Executive Vice President of the Hardis Group since early 2013 and a member of the executive committee, he helps to define the group's strategy and manage its operational implementation.

Prior to joining Hardis, Nicolas Odet held the position of business engineer at IBM (systems and storage division) and Sagem (network and optical fiber solutions).

Nicolas Odet graduated from Grenoble Ecole de Management in 1998 with a degree in technology management.

About Hardis Group

Hardis Group carries on the dual business of digital services and software publishing. The company assists its clients from end-to-end in the transformation and performance of their information systems and supply chains, and also in their digital transition. With its dual historical positioning, Hardis Group has developed business expertise in the areas of insurance and e-health, distribution (retail and CPG), industry and energy, and logistics services. This expertise now allows it to provide its clients with global responses to their needs, in an agile approach characterized by co-construction, innovation and continuous improvement.

Since its creation in 1984, the company has built its growth on a pragmatic approach and values of efficiency and firm commitment both to its 2,500 clients and its 650 employees (25% of whom are also shareholders). Hardis Group posted turnover of €57.2 million in 2013. The group, which is based in Grenoble, has four branches, in Lyon, Paris, Lille and Nantes.
www.hardis.fr

Press contacts

Anjuna
Elodie Cassar
elodie.cassar@anjuna.fr
Tel. +33 9 64 15 31 27
GSM: +33 6 80 53 82 94

Hardis Group
Hélène Leclercq
helene.leclercq@hardis.fr
Tel. +33 4 76 70 98 41