

Talking to Your Inner Liberal Arts Major

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One of the key challenges of Business Intelligence is to offer business users the opportunity of asking business questions in an intuitive manner, and receiving answers they can understand and trust. The problem is not about computing the right answers for a given query: it's to interpret — and if necessary guide — the user's actions in order to deduce their intent and make sure we answer the question they intended to ask in the first place. As engineers, scientists and developers, we tend to adopt authoring metaphors which we find intellectually elegant but will puzzle most users. Subqueries, for instance, are simply out of reach of most users, and can be replaced by incremental construction of query elements. Moreover, the lack of semantic depth in many tools — Excel to start with — can encourage users to perform mathematically expressible yet generally meaningless computations, such as an average of percentages. More generally, the subtlety of business questions is largely ignored, and BI tools tend to make a priori, undocumented decisions about the intended semantics of business questions — leading not to wrong, but to misleading answers.

Through the exploration of a number of real-life examples, this presentation aims at identifying how we can at last adapt our query metaphors to a general audience.

Yannick Cras is Chief Development Architect, Core BI technology at SAP BusinessObjects. As such he provides individual expertise, leadership and executive influence in the design of the core Business Intelligence technology of the company, of which he authored a number of foundation patents such as the mathematical calculation model that underlies SAP's flagship BI product, WebIntelligence. Yannick's technology interests are centered around data, calculation and query semantics, with a strong focus on devising creative solutions that merge expressive power and semantic soundness with user-friendliness in a class of products designed for non IT personnel. Yannick has been working for Business Objects, now SAP BusinessObjects, since 1995 in various technical management or leadership positions. Prior to that he worked for EDS Management Consulting Services as a Senior Consultant in the field of advanced combinatorial problem solving and Operations Research, where he devised complex optimization algorithms for clients such as Elf Atochem, Air France or SNCM. His career had started with Bull's Artificial Intelligence Development group where he co-authored and co-developed the first industrial constraint programming language Charme.

Yannick holds an Engineer-Doctor degree in Computer Sciences from University Paris XI, an Engineering degree (option Applied Mathematics) from the Ecole Centrale Paris, and an Advanced Degree in Computer Sciences from University Paris VI. He is a member of the steering committee for the Business Objects BI Chair at ECP, where he regularly gives talks. Yannick is also an amateur composer, poet and songwriter.