

# *: Is data modeling needed for DSS built using no schema big data?*

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Agile development of analytics and data-driven decision support is not new. Decision support built using rapid application development (RAD) has been the norm for many years. What is new is that some new data sources have simple, no schema structures. This big data streaming often in real-time can be a valuable source of data for decision support. Pascal Desmarets, founder and CEO of Hackolade, argues data modeling has become a bottleneck and should be reinvented (Bowermaster and Powell, 2018). This article explores the need for and process of data modeling for big data, no SQL decision support and analysis.

Desmarets has a solution, Domain-Driven Design (DDD). He explains "When dealing with NoSQL and agile development, we propose that Domain-Driven Design should replace conceptual modeling. Domain-Driven Design is a language- and domain-centric approach to software design for complex problem domains. It includes a collection of patterns, principles, and practices that enable teams to focus on what's core to the success of the business while crafting software that tackles the complexity in both the business and the technical spaces."

Evans (2003) proposed intertwining design and development processes to deal with complex software projects. He advocated focusing on the domain for the project. Powell-Morse (2017) explains "during application development, the domain is the 'sphere of knowledge and activity around which the application logic revolves.'"

In a complex decision support project, the sphere of knowledge is the how, what, when, and who of the specific decision making task. Who acquires what data to perform what analyses? How is the data analyzed? How is data used in the process? The DDD process seems to focus on "what is?" rather than "what should be?" in developing decision support. Perhaps formalizing and supporting existing decision making activities and tasks is best for some routine decision situations where increasing speed and reliability is sought.

## **References**

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