

Models for NoSQL Databases: A Contradiction?

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NoSQL systems have gained their popularity for many reasons, including the flexibility they provide with modeling, which tries to relax the rigidity provided by the relational model and by the other structured models. The talk will discuss how traditional notions related to modeling can be useful in this context as well, both in the search for standardization and uniform access (as the variety of systems and models can create difficulties in developers and in their organizations) and in the support to generic approaches to logical and physical design (with the idea that there are some principles that apply to most systems, despite the significant heterogeneity).

The talk will be based on two recent papers coauthored by the speaker, the first on a metamodeling approach to a common interface to non relational systems [1] and the other on a design methodology for NoSQL systems, based on a system-independent (“logical”) representation of the application data [2].

References

1. Atzeni, P., Bugiotti, F., Rossi, L.: Uniform access to NoSQL systems. *Inf. Syst.* **43**, 117–133 (2014)
2. Bugiotti, F., Cabibbo, L., Atzeni, P., Torlone, R.: Database design for NoSQL systems. In: *ER 2014*, pp. 223–231 (2014)