

Schemas for Graphs and Other Forms of Semi-Structured Data

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Abstract. Semistructured data is on the rise: Graph databases are now offered by most major database vendors, and JSON is used everywhere on the web. And while these data paradigms are commonly described as “having less structure than relational databases”, the industry is also recognising the advantages of pairing the data with some notion of schema, in the form of metadata that would describe both what is in the database and how is the data structured. In this talk we focus on the SHACL/ShEx proposal for RDF graph data and JSON Schema for JSON data, two of the most adopted proposals for semi-structured data. Interestingly, even though these proposals have spanned in two completely different worlds, we show that they share the same foundations and the same spirit. We will also discuss about the challenges that arise from features demanded in these proposals by the community, but that give rise to a number of interesting open problems.