

Abstract: Specifying a global policy in a data integration system in a traditional way would not necessarily offer a sound and efficient solution to deal with the inference problem. This is mainly due to the fact that data dependencies (between distributed data sets) are not taken into account when local policies (attached to local sources) are defined. By using formal concept analysis, we propose a methodology, together with a set of algorithms that can help to detect security breaches by reasoning about semantic constraints. Given a set of local policies, an initial global policy and data dependencies, we propose an approach that allows the security administrator to derive a set of queries so that when their results are combined they could lead to security breaches. We detect the set of additional rules which will be used to extend the policy of the mediator in order to block security breaches.



Bio: [Mohand-Saïd Hacid](#) is full Professor in Computer Sciences at Université Claude Bernard Lyon 1 Lyon 1. He received his PhD degree in computer sciences from INSA (National Institute of Applied Sciences), France, in 1991. In 1997, he joined the theoretical Computer Science laboratory at RWTH Aachen, Germany for 14 months, and a year later he joined the Indiana Center for Database Systems (ICDS), USA, for one year. He was the (1) Founder and Leader of the Database, Knowledge Representation and Reasoning group (2002-2008) of LIRIS CNRS UMR 5205 (<http://liris.cnrs.fr>), (2) leader of Data, Knowledge and Services research department (January 2008-January 2014) of LIRIS, and (3) Director of Lyon Center for High Education (CIES de Lyon, from 2006 to 2011). In January 2009 He was appointed as the Deputy Director of LIRIS (until 2015). In July 2015, he was appointed, for 5 years, as Director of LIRIS.

His research areas include query languages for information systems, semantic web, Web services, multimedia databases and data security.