Sergio Tessaris is Assistant Professor at the Faculty of Computer Science of the Free University of Bozen-Bolzano since 2003. Before he held a Lecturer position at the UMIST University in Manchester (UK) and a Research Associate position at the University of Manchester. Before starting his PhD he worked as IT system administrator in an UNESCO research institute in Italy.

He obtained his PhD in Computer Science at the University of Manchester (UK) in 2001 and his thesis was awarded of the best thesis prize in the Department of Computer Science and nominated for the British national competition by the Department.

At unibz he is the local coordinator of the European Master's Program in Computational Logic (EMCL); an international study programme awarded of the Erasmus Mundus status by the European Union since its creation in 2004.

He was member of the W3C committee for the definition of the SPARQL query language for RDF a member of the steering committee of Description Logic Workshop. Co-organiser of two editions of the Description Logic Workshop and the 2009 Reasoning Web Summer School. He's been reviewer for international journals and PC member of several international conferences. He collaborated in several international (EU funded) and national projects.

His expertise focuses on semantic technologies for data access; including integrating, querying, acquiring and managing traditional information source (structured data) and semistructured data (e.g. XML, RDF/S, Knowledge Bases). Recently his research has been directed to the applications of KR techniques to business process analysis; in particular w.r.t. the interaction with data.

He has been interested in the use of technology for improving the effectiveness of teaching for more than 10 years by applying them to his work as a lecturer. Recently he joined the working group of unibz for the promotion of eLearning practices, and he organised tutorials for the university staff on the use of the Moodle LMS.

Selected publications

- Dahl, V., S. Tessaris, and M.D.S. Bispo. 2018. "Parsing as Semantically Guided Constraint Solving: The Role of Ontologies." *Annals of Mathematics and Artificial Intelligence*, 1–25. https://doi.org/10.1007/s10472-018-9573-2.
- De Masellis, R., C. Di Francescomarino, C. Ghidini, M. Montali, and S. Tessaris. 2017. "Add Data into Business Process Verification: Bridging the Gap between Theory and Practice." In *31st AAAI Conference on Artificial Intelligence, AAAI 2017*, 1091–99. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85020552041&partnerID=40&md5=cfbb283e6df490a7433a0bff192b04ca
- Di Francescomarino, C., C. Ghidini, S. Tessaris, and I.V. Sandoval. 2015. "Completing Workflow Traces Using Action Languages." *Lecture Notes in Computer Science (Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)* 9097: 314–30. https://doi.org/10.1007/978-3-319-19069-3_20.
- Fillottrani, P.R., E. Franconi, and S. Tessaris. 2012. "The ICOM 3.0 Intelligent Conceptual Modelling Tool and Methodology." *Semantic Web* 3 (3): 293–306. https://doi.org/10.3233/SW-2011-0038.
- Al-Shammari, A.F.N., K. Weldemariam, A. Villafiorita, and S. Tessaris. 2011. "Vote Verification through Open Standard: A Roadmap." In *Proc. of 2011 Int. Workshop on Requirements Engineering for Electronic Voting Systems, REVOTE 2011 - In Conjunction with the 19th IEEE International Requirements Engineering Conference 2011, RE 2011*, 22–26. https://doi.org/10.1109/REVOTE.2011.6045912.
- Lubyte, L., and S. Tessaris. 2009. "Automatic Extraction of Ontologies Wrapping Relational Data Sources." *Lecture Notes in Computer Science (Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)* 5690 LNCS: 128–42. https://doi.org/10.1007/978-3-642-03573-9_10
- Ghidini, C., L. Serafini, and S. Tessaris. 2007. "On Relating Heterogeneous Elements from

Different Ontologies." *Lecture Notes in Computer Science (Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)* 4635 LNAI: 234–47.

- Dongilli, P., S. Tessaris, and J.A. Bateman. 2006. "Leveraging Systemic-Functional Linguistics to Enhance Intelligent Database Querying." In *Proceedings - ISDA 2006: Sixth International Conference on Intelligent Systems Design and Applications*, 1:1073–79. https://doi.org/10.1109/ISDA.2006.185.

- Catarci, T., P. Dongilli, T. Di Mascio, E. Franconi, G. Santucci, and S. Tessaris. 2004. "An Ontology Based Visual Tool for Query Formulation Support." *Frontiers in Artificial Intelligence and Applications* 110: 308–12.

- Horrocks, I., and S. Tessaris. 2002. "Querying the Semantic Web: A Formal Approach." *Lecture Notes in Computer Science (Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)* 2342: 177–91.

<u>Previous and current research projects</u>

- "Trust me, it's only for me". Criminalizing "Revenge Porn"? (CREEP, 2019) – co-principal investigator
  o Interdisciplinary project focusing on analysing and proposing mitigation efforts to the phenomenon of image-based abuses.
- Planning for Workflow Management (PWORM, 2016) – principal investigator
  o Funded by the Province of Bozen-Bolzano. The main objective is to investigate and exploit Automated Planning technologies to provide concrete software tools supporting the design and analysis of Business Processes models.
- KRDB for Legacy Information Systems (KRDBLISS, 2008) - principal investigator
  o Project funded by the Free University of Bozen-Bolzano directed at exploiting automated reasoning techniques to support the extraction of semantic properties from relational databases.
- Network for Enabling Networked Knowledge (NET2) http://net2.deri.ie
  o Focusing on research on knowledge management on the Web, the project funds visits between participating research partners.
  o In the context of the project I visited the African Advanced Institute for Information & Communication Technology (MERAKA) and Shanghai Jiao Tong University (SJTU), a month each, for research collaboration and lecturing
- Ontologies Meet Business Rules (ONTORULE) http://ontorule-project.eu
  o Integration of ontologies and (business) rules.
- Thinking Ontologies (TONES) http://www.inf.unibz.it/tones
  o Study and development of automated reasoning techniques for both offline and online tasks associated with ontologies.
- Interoperability Research for Networked Enterprises Applications and Software Network of Excellence (InterOp, IST-508011)
  o Network of Excellence with the aim of creating the conditions of an innovative and competitive research in the domain of Interoperability for Enterprise Applications and Software.
- Knowledge Web: Realizing the Semantic Web (FP6-507482) http://knowledgeweb.semanticweb.org
  o Network of Excellence with the aim of strengthening the European industry and service providers in the area of Semantic Web enabled E-work and E-commerce. The project concentrated its efforts on the outreach of this technology to industry, including education and research efforts to ensure the durability of impact and support of industry.

- SEWASIE: Semantic Webs and AgentS in Integrated Economies (IST-2001-34825) http://www.dbgroup.unimo.it/Sewasie
    o SEWASIE aimed at implementing and advanced search engine, which will provide European SMEs with intelligent access to heterogeneous information on the Internet.
- Reasoning About Conjunctive Query Containment Under Constraints (ESPRC GR/R00340/01) http://gow.epsrc.ac.uk/NGBOViewGrant.aspx?GrantRef=GR/R00340/01
    o Investigated the feasibility of using DL reasoning to decide query containment problems with respect to a set of constraints (typically a conceptual schema).
- Camelot: an Adaptable Knowledge Management System for Loosely Structured Data (ESPRC   GR/L54516/01) http://gow.epsrc.ac.uk/NGBOViewGrant.aspx?GrantRef=GR/L54516/01
    o Primary goal of this project was to improve information systems for professional users whose information needs are characterised by heterogeneous, evolving, partially-structured data with incomplete descriptions.