

# Curriculum Vitae

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<b>Date of Birth</b>	8 <sup>th</sup> September 1960
<b>Nationality</b>	Brazilian
<b>Current Position</b>	Associate Professor of Intelligent Information Systems

## Brief Biography

Célia Ghedini Ralha is an Associate Professor at the Department of Computer Science, University of Brasília, Brazil. She received her Ph.D. degree in Computer Science from Leeds University, England, UK in 1996. Her M.Sc. in 1990 was received at the Aeronautics Institute of Technology (ITA), São José dos Campos, São Paulo, Brazil. She has a BSc in Administration from the Catholic University of Brasília, Brazil. She has experience in Computer Science, focusing on Intelligent Information Systems, with research interest on the treatment of information and knowledge using multi-agent systems approach, focusing the intelligent agent interaction protocol and the association to other technologies, such as SOA, Web Intelligence, Web Semantic, Business Process Management and Knowledge Management.

## Education

- Joined Brasília Catholic University in March 1980. Graduated in July 1983 in Administration (BSc). Systems Analysis and Informatics Post-graduate Course (1985-1986).

- Enrolled in Computer Science Master Course at the Aeronautics Institute of Technology (ITA, Brazil) in February 1988, supervised by Edson Luiz França Senne. Degree conferred in July 1990 (M.Sc.).
- Matriculated at the School of Computer Studies Leeds University (UK) in February 1993, supervised by Anthony G. Cohn. Thesis submitted in Autumn and passed oral exam in December 1996. Degree conferred in January 1997 (Ph.D.).

## Career

- 2002 - 2010 Lecturer levels 1 to 4, University of Brasília, Dept. Computer Science
- 2011 - *ongoing* Assistante Professor level 1, University of Brasília, Dept. Computer Science
- 2010 - *ongoing* Director of Innovation and Institutional Development at the Dean of Research and Postgraduate Studies
- 2006 - 2010 Head of Computer Science Department
- Member of different University Committees:
  - 2008 - *ongoing* Higher council of the university administration
  - 2009 - 2010 Committee to support the Federal Brazilian Universities Restructuring Plan and Expansion (REUNI)
  - 2009 & 2011 Committee president of public contest for lecturer position, Dept. of Computer Science
  - 2006 - 2009 University of Brasília evaluation committee

## Postgraduate Research Students Supervision

- PhD
  1. Fernando Szimanski (joint supervisor, started 2010)
  2. Wosley Costa Arruda (joint supervisor, started 2010)

3. Bruno Werneck Pinto Hoelz (started August 2009)
4. Ana Régia de Mendonça Neves (started March 2008)

- **MSc**

1. Leone Parise Vieira da Silva (started August 2011)
2. Gabriela Netto Guerra (started August 2010)
3. Rodrigo André Cuevas Gaete (started March 2010)
4. Carolina Gonçalves Abreu (started March 2010, degree awarded 2012)
5. Humphrey Corrêa da Fonseca (started August 2010, degree awarded 2011)
6. Frederico Imbroisi Mesquita (started 2009, degree awarded 2011)
7. Georger Rommel Ferreira de Araujo (started 2009, degree awarded 2011)
8. Marcelo Caldeira Ruback (started 2009, degree awarded 2011)
9. Rodrigo Lange (started 2009, degree awarded 2011)
10. Carlos Vinícius Sarmiento Silva (started March 2009, degree awarded 2011)
11. Carlos de Oliveira Bravo (started 2008, degree awarded 2010)
12. Hugo Wruck Schneider (started 2008, degree awarded 2010)
13. Albert Frederico de Menezes Il Pak (started 2008, degree awarded 2010)
14. Bruno Werneck Pinto Hoelz (started 2007, degree awarded 2009)
15. Richardson Silva Lima (started 2005, degree awarded 2007)
16. Rafael Gostinski Ferreira (started 2005, degree awarded 2007)
17. Eluzai Souza dos Santos (started 2005, degree awarded 2006)
18. José Nelson Costa Allemand (started 2004, degree awarded 2006)
19. Wesley Martins Teles (joint supervisor, degree awarded 2003)

## Teaching

- MSc course "Multiagent Systems", University of Brasília, Dept. of Computer Science (2007–2012)
- MSc course "Semantic Web", University of Brasília, Dept. of Computer Science (2005)
- MSc course "Seminars", University of Brasília, Dept. of Computer Science (2004–2009)
- 2nd year undergraduate course "Information Systems", University of Brasília, Dept. of Computer Science (2002–2012)
- 4th year undergraduate course "Artificial Intelligence Studies" and "Information Systems Studies", University of Brasília, Dept. of Computer Science (2002–2012)

## Miscellaneous

- Programme committee memberships:
  - Information Systems Brazilian Symposium (SBSI 2011, 2010, 2009)
  - 10th International Conference on Autonomous Agents and Multi-agent Systems (AAMAS 2011)
  - The International Federation for Information Processing (IFIP) International Conference on Research and Practical Issues of Enterprise Information Systems (CONFENIS 2010)
  - International Information and Telecommunication Technologies Symposium (I2TS 2010, 2009, 2008, 2007)
  - 3rd Workshop on Ontologies and Metamodels in Software and Data Engineering (WOMSDE 2008)
  - Brazilian Symposium on Bioinformatics (BSB 2008)
  - Workshop on Information Systems Thesis and Dissertations (WTDSI 2008, 2007)
- Editorial Board Memberships:

- The International Journal of Forensic Computer Science (IJOFCS), 2006 - *ongoing* (<http://www.ijofcs.org/people.html>)
- Revista Eletrônica de Sistemas de Informação (RESI), 2009 - *ongoing* (<http://revistas.facecla.com.br/index.php/reinfo/about/displayMembership/3>)
- Institutional affiliations:
  - Association for Computing Machinery (ACM), professional membership number 1966790
  - Sociedade Brasileira de Computação (SBC) or the Brazilian Computing Society, association number 12758, since 29/05/03
- External Examinership:
  - Universidade Federal do Rio Grande do Sul (UFRGS), PhD thesis, 2010
  - Department of Electrical Engineering, University of Brasília, PhD proposal, 2009, 2011-2012
- 2010-2011 Vice coordinator of the Information System special committee – Brazilian Computing Society (SBC) ([http://www.sbc.org.br/index.php?option=com\\_content&view=category&layout=blog&id=298&Itemid=917](http://www.sbc.org.br/index.php?option=com_content&view=category&layout=blog&id=298&Itemid=917))
- Research group leader, National Counsel of Technological and Scientific Development (CNPq), "Computational Systems for Information Processing and Knowledge", composed of twenty four students and six researchers (<http://dgp.cnpq.br/buscaoperacional/detalhegrupo.jsp?grupo=024010360AHR2C>)

## Publications

### Journals

- [1] Carolina Gonçalves Abreu, Cássio Giorgio Couto Coelho, Célia Ghedini Ralha, Alexandre Zaghetto, and Bruno Macchiavello. Ferramenta de simulação com abordagem de sistema multiagente híbrida para gestão

ambiental. *iSys – Revista Brasileira de Sistemas de Informação*, 4, 2011. ISSN Eletrônico: 1984-2902.

- [2] Carlos Vinícius Sarmiento Silva and Célia Ghedini Ralha. Detecção de cartéis em licitações públicas com agentes de mineração de dados. *RESI - Revista Eletrônica de Sistemas de Informação*, 10(1), 2011. Chamada especial: e-Gov, doi:10.5329/RESI.2011.1001008, ISSN Eletrônico: 1677-3071.
- [3] Ana Regia de Mendonça Neves, Humphrey Fonseca, Letícia Zoby, and Célia Ralha. Localização de usuários em ambiente interno utilizando abordagem de sistema multiagente. *iSys - Revista Brasileira de Sistemas de Informação*, 3, 2010. ISSN Eletronic: 1984-2902.
- [4] Célia Ghedini Ralha and José Carlos Loureiro Ralha. Hypermap: A system to map the web. *Journal of Digital Information Management*, 4, March 2006. ISSN 0972-7272, <http://www.dirf.org/jdim/abstractv4i1.htm#01>.
- [5] Flávio M. Vaz da Costa, José Carlos L. Ralha, and Célia G. Ralha. Aprendizagem de Língua Assistida por Computador: Uma Abordagem Baseada em HPSG. *Revista Brasileira de Informática na Educação*, 14, 2006. ISSN 1414-5685, <http://www.br-ie.org/pub/index.php/rbie/article/view/36>.
- [6] José Carlos Loureiro Ralha and Célia Ghedini Ralha. Towards a natural way of reasoning. In Ana L. C. Bazzan and Sofiane Labidi, editors, *Advances in Artificial Intelligence (SBIA 2004)*, volume 3171 of *Lecture Notes in Computer Science*, pages 547–580. Springer Berlin / Heidelberg, 2004.
- [7] Célia Ralha. A framework for dynamic structuring of information. *Scientia*, 14, 2003. ISSN 0104-1770.
- [8] Célia Ralha. Structuring information in a distributed hypermedia system. In Nigel Shadbolt, Kieron O’Hara, and Guus Schreiber, editors, *Advances in Knowledge Acquisition*, volume 1076 of *Lecture Notes in Computer Science*, pages 163–178. Springer Berlin / Heidelberg, 1996.

## Organized Book

- [1] Antonio Candido Faleiros and Célia Ghedini Ralha. *Minicursos do XI Simpósio Brasileiro de Segurança da Informação e de Sistemas Computacionais – SBSeg 2011*, page 280. Sociedade Brasileira de Computação (SBC), 2011. ISBN 978-85-7669-259-1.

## Book Chapter

- [1] Bruno Hoelz, Celia Ralha, and Frederico Mesquita. Case-based reasoning in live forensics. In Gilbert Peterson and Sujeet Sheno, editors, *Advances in Digital Forensics VII*, volume 361 of *IFIP Advances in Information and Communication Technology*, pages 77–88. Springer Boston, 2011. DOI = [http://dx.doi.org/10.1007/978-3-642-24212-0\\_6](http://dx.doi.org/10.1007/978-3-642-24212-0_6).
- [2] Célia Ghedini Ralha. Towards the integration of multiagent applications and data mining. In Longbing Cao, editor, *Data Mining and Multi-agent Integration*, pages 37–46. Springer Science + Business Media, 2009. ISBN: 978-1-4419-0521-5, DOI: 10.1007/978-1-4419-0522-2\_2.

## Refereed International Conferences

- [1] Marcelo Ruback, Bruno Werneck P. Hoelz, and Célia Ghedini Ralha. Improving Hash Sets in Digital Forensics. In *Eighth Annual IFIP WG 11.9 International Conference on Digital Forensics, Pretoria, South Africa, January 2–5*. Springer, Heidelberg, 2012. <http://www.ifip119.org/>.
- [2] Bruno Werneck P. Hoelz, Célia Ghedini Ralha, and Frederico Imbroisi Mesquita. A Case-Based Reasoning Framework for Live Forensics. In G. Peterson and S. Sheno, editors, *Seventh Annual IFIP WG 11.9 International Conference on Digital Forensics, Florida, USA, January 30–February 2*, pages 1–20. Springer, Heidelberg, 2011. (ISBN: 978-3-642-24211-3), <http://www.ifip119.org/>.
- [3] Célia Ghedini Ralha, Hugo Wruck Schneider, Maria Emilia M. T. Walter, and Marcelo M. Brigido. A Multi-Agent Tool to Annotate Biological

Sequences. In *3rd International Conference on Agents and Artificial Intelligence, ICAART 2011, Rome, Italy, January 28-30*, pages 226–231. SciTePress, 2011. ISBN: 978-989-8425-41-6 <http://dblp.uni-trier.de>.

- [4] Carlos Vinícius Sarmiento Silva and Célia Ghedini Ralha. AGMI - An AGent-MINing Tool and Its Application to Brazilian Government Auditing. In *7th International Conference on Web Information Systems and Technologies, WEBIST 2011, Noordwijkerhout, The Netherlands, May 6-9*, pages 1–4. INSTICC-Institute for Systems and Technologies of Information, Control and Communication, 2011. <http://www.webist.org/home.asp>.
- [5] Leone Parise Vieira da Silva, Rajiv Geeverghese, Edward de Oliveira Ribeiro, Genáina Nunes Rodrigues, and Célia Ghedini Ralha. A flexible event-driven architecture for peer-to-peer based applications. In *Proceedings of the 23rd International Conference on Software Engineering & Knowledge Engineering (SEKE'2011), Eden Roc Renaissance, Miami Beach, USA, July 7-9*, pages 764–769, 2011.
- [6] Célia Ghedini Ralha and Leone Parisi V. Silva. Using multiagent and peer to peer to improve e-service searching on the web. In *The Seventh Symposium on Statistical Challenges in Electronic Commerce Research (SCECR)*, Rio de Janeiro, 2011. The University of Arizona, Eller College of Management, USA.
- [7] Humphrey C. Fonseca, Ana Régia de M. Neves, and Célia Ghedini Ralha. A user location case study using different wireless protocols. In *Proceedings of the 9th ACM International Workshop on Mobility Management & Wireless Access, MOBIWAC 2011, Eden Roc Renaissance, Miami Beach, USA, October 31-November 4*, pages 143–146, 2011.
- [8] Fernando Szimanski, Célia Ghedini Ralha, and Ricardo Pezzuol Jacobi. Uma abordagem de redescoberta e melhoria de processos de negócios através da integração de simulação baseado em agentes e mineração de processos. In *Conferência IADIS Ibero-Americana WWW/Internet (CIAWI)*, Rio de Janeiro, 2011.
- [9] Rodrigo Lange and Célia Ghedini Ralha. Identificação de artefatos periciais do e-mule. In *Brazilian Association of High Technology Ex-*

- perts (ABEAT), editor, *The sixth international conference on forensic computer science (ICoFCS)*, volume 1, pages 43–53, Florianópolis, SC, Brasil, 2011.
- [10] Frederico Imbroisi Mesquita, Bruno Werneck P. Hoelz, and Célia Ghedini Ralha. Raciocínio baseado em casos aplicado em análise live. In Brazilian Association of High Technology Experts (ABEAT), editor, *The sixth international conference on forensic computer science (ICoFCS)*, volume 1, pages 68–77, Florianópolis, SC, Brasil, 2011. Best Paper.
- [11] Georger Rommel Ferreira Araujo and Célia Ghedini Ralha. Computer forensic document clustering with art1 neural network. In Brazilian Association of High Technology Experts (ABEAT), editor, *The sixth international conference on forensic computer science (ICoFCS)*, volume 1, pages 106–114, Florianópolis, SC, Brasil, 2011. Runner-up paper.
- [12] Celia Ghedini Ralha, Hugo Wruck Schneider, Maria Emilia Machado Telles Walter, and Ana Lucia Cetertich Bazzan. Reinforcement learning method for bioagents. *Neural Networks, Brazilian Symposium on*, pages 109–114, 2010.
- [13] A. R. Neves, L. T. Maia, C. G. Ralha, and R. P. Jacobi. Prototype for indoor localization based on multiagent system. In *3<sup>rd</sup> International Conference on Intelligent and Advanced Systems (ICIAS 2010), World Engineering, Science & Technology Congress (ESTCON), Kuala Lumpur Convention Centre, Malaysia, June 15-17*. IEEE Computer Society Press, 2010. ISBN 978-1-4244-6624-5, IEEE Catalog Number: CFP1066C-CDR.
- [14] Alfredo L. F. Fialho, Eloiza V. M. Viana, Jacir L. Bordim, and Célia G. Ralha. Sumarização automática de textos para suporte a aplicações sensíveis ao tempo de resposta. In *International Association for Development of the Information Society (IADIS) Ibero-Americana WWW/Internet 2010 (CIAWI 2010), Algarve, Portugal, Dezembro 10-11*, pages 1–7. IADIS Press, 2010. <http://www.ciawi-conf.org/pt/index.asp>.
- [15] Bruno W. P. Hoelz, Célia Ghedini Ralha, and Rajiv Geeverghese. Artificial intelligence applied to computer forensics. In *SAC '09: Proceedings of the 2009 ACM symposium on Applied*

*Computing*, pages 883–888, New York, NY, USA, 2009. ACM. <http://doi.acm.org/10.1145/1529282.1529471>.

- [16] Bruno W. Hoelz, Célia G. Ralha, Rajiv Geeverghese, and Hugo C. Junior. Madik: A collaborative multi-agent toolkit to computer forensics. In *OTM '08: Proceedings of the OTM Confederated International Workshops and Posters on On the Move to Meaningful Internet Systems*, pages 20–21, Berlin, Heidelberg, 2008. Springer-Verlag. DOI = [http://dx.doi.org/10.1007/978-3-540-88875-8\\_10](http://dx.doi.org/10.1007/978-3-540-88875-8_10).
- [17] Célia Ghedini Ralha, Hugo W. Schneider, Lucas O. Fonseca, Maria Emilia Walter, and Marcelo M. Brígido. Using bioagents for supporting manual annotation on genome sequencing projects. In *BSB '08: Proceedings of the 3rd Brazilian symposium on Bioinformatics*, pages 127–139, Berlin, Heidelberg, 2008. Springer-Verlag. DOI = [http://dx.doi.org/10.1007/978-3-540-85557-6\\_12](http://dx.doi.org/10.1007/978-3-540-85557-6_12).
- [18] Bruno W. P. Hoelz, Célia G. Ralha, Rajiv Geeverghese, and Hugo C. Junior. A cooperative multi-agent approach to computer forensics. In *WI-IAT '08: Proceedings of the 2008 IEEE/WIC/ACM International Conference on Web Intelligence and Intelligent Agent Technology*, pages 477–483, Washington, DC, USA, 2008. IEEE Computer Society.
- [19] Claudio Bartolini, Akhil Sahai, and Jacques Philippe Sauvé, editors. *Proceedings of BDIM 2008, 3rd IEEE/IFIP International Workshop on Business-Driven IT Management, April 7, 2008, Salvador, Brazil*, 2008. DBLP, <http://dblp.uni-trier.de>.
- [20] Célia Ghedini Ralha and Rafael Gostinski. A methodological framework for business-it alignment. In *Proceedings of BDIM 2008, 3rd IEEE/IFIP International Workshop on Business-Driven IT Management, April 7, 2008, Salvador, Brazil*, pages 1–10. IEEE, 2008. DBLP, <http://dblp.uni-trier.de>.
- [21] Eluzai Souza dos Santos, Célia Ghedini Ralha, and Hervaldo S. Carvalho. Mda-based ontology development: A study case. In *19<sup>th</sup> International Conference on Software Engineering and Knowledge Engineering (SEKE'07), Boston, USA, July 9-11. Proceedings*, pages 616–621, 2007. DBLP, <http://dblp.uni-trier.de>.

- [22] Célia Ghedini Ralha, Jose Nelson C. Allemand, and Alba Cristina Magalhaes Alves de Melo. A four-layered semantic grid architecture. In *19<sup>th</sup> International Conference on Software Engineering and Knowledge Engineering (SEKE'07), Boston, USA, July 9-11. Proceedings*, pages 724–729, 2007. DBLP, <http://dblp.uni-trier.de>.
- [23] J.G.R.C. Lopes, A.C. Magalhaes Alves Melo, M.A.R. Dantas, and C. Ghedini Ralha. A proposal and evaluation of a mechanism for grid ontology merge. In *High-Performance Computing in an Advanced Collaborative Environment, 2006. HPCS 2006. 20th International Symposium on*, page 2, May 2006.
- [24] C.G. Ralha and J.C.L. Ralha. Hypermap: a system to map the web. In *Next Generation Web Services Practices, 2005. NWeSP 2005. International Conference on*, page 6 pp., august 2005.
- [25] Célia Ghedini Ralha, José Carlos Loureiro Ralha, Charles Antônio Nascimento Costa, and Augusto Arcoverde da Rocha. Intelligent web information mapping with hypermap. In *Web Intelligence*, pages 594–597, 2005. DBLP, <http://dblp.uni-trier.de>.
- [26] Célia Ghedini Ralha and José Carlos Loureiro Ralha. Intelligent mapping of hyperspace. In *IEEE / WIC International Conference on Web Intelligence, (WI 2003), 13-17 October 2003, Halifax, Canada*, pages 454–457, 2003. DBLP, <http://dblp.uni-trier.de>.
- [27] Wesley Martins Teles, Weigang Li, and Célia Ghedini Ralha. Antweb - the adaptive web server based on the ants behavior. In *IEEE / WIC International Conference on Web Intelligence, (WI 2003), 13-17 October 2003, Halifax, Canada*, pages 558–561, 2003. DBLP, <http://dblp.uni-trier.de>.
- [28] José Carlos Loureiro Ralha and Célia Ghedini Ralha. Most inferences are defeasible. In *Third International Workshop on Computational Models Of Scientific Reasoning and Applications (CMSRA)*, volume 1, pages 111–119, Bahia Blanca, Argentina, 2003.

## Refereed Brazilian Conferences

- [1] Fernando Szimanski, Célia Ghedini Ralha, and Ricardo Pezzuol Jacobi. Uma abordagem de integração de simulação baseado em agentes e mineração de processos. In Sociedade Brasileira de Computação, editor, *VII Simpósio Brasileiro de Sistemas de Informação*, Salvador, Bahia, Brasil, 2011.
- [2] Carolina Gonçalves Abreu, Cássio Giorgio Couto Coelho, Célia Ghedini Ralha, Alexandre Zaghetto, and Bruno Macchiavello. Ferramenta de simulação com abordagem de sistema multiagente híbrida para gestão ambiental. In Sociedade Brasileira de Computação, editor, *VII Simpósio Brasileiro de Sistemas de Informação*, Salvador, Bahia, Brasil, 2011.
- [3] Carlos Marinelli, Cássio Coelho, Célia Ralha, Alexandre Zaghetto, and Bruno Macchiavello. Modelo de simulação com uso de abordagem de sma para o zoneamento de unidades de conservação da amazônia. In *Simpósio Brasileiro de Sistemas de Informação, SBSI 2010, Marabá, Brasil, Junho 16-18*, pages 1–12. SBC, 2010. <http://www.sbsi2010.com.br/index.html>.
- [4] Carlos Vinícius Sarmiento Silva and Célia Ghedini Ralha. Utilização de técnicas de mineração de dados como auxílio na detecção de cartéis em licitações. In *II Workshop de Computação Aplicada em Governo Eletrônico, WCGE 2010, Belo Horizonte, Minas Gerais, Julho 20-21*, pages 1–13. SBC, 2010. <http://www.serpro.gov.br/wcge>.
- [5] Richardson Silva Lima, Célia Ghedini Ralha, Maria Emília Machado T. Walter, Hugo Wruck Schneider, Anderson Gray F. Pereira, and Marcelo Macedo Brígido. Bioagents: Um sistema multiagente para anotação manual em projetos de seqüenciamento de genomas. In *XXVII Congresso da SBC, VI Encontro Nacional de Inteligência Artificial (ENIA'07)*, Rio de Janeiro, RJ, 30 Junho a 6 Julho. *Anais*, pages 1302–1310, 2007. [http://www.cos.ufrj.br/~ines/enia07\\_html/index2.htm](http://www.cos.ufrj.br/~ines/enia07_html/index2.htm).