

Curriculum Vitae

Dr. Siegfried Reich

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Personal Record

Date of Birth: November 30, 1967

Citizenship: Austria

1987-1992

Study of applied computer science at the Johannes Kepler University of Linz, Austria. Graduation May 8, 1992.

Title of master thesis: *Plausibilitätskontrollen im Rahmen eines objektorientierten Interface-Editors* (Plausibility Checks within the Framework of an Object-Oriented Interface Editor).

Supervisor Prof. Dr. Arno Schulz.

1992-1995

Ph.D. study at the University of Vienna, Austria. Graduation July 7, 1995.

Title of Ph.D. thesis: *De Modo Operandi: Towards the Interoperability of Workflow Information*.

Supervisors Prof. Dr. A Min Tjoa and Prof. Drs. Gerald Quirchmayr.

Research Record

1991/1992

Object-oriented programming in *C++* using the application framework *ET++* [1, 9, 25].

1992/1993

Document management and structured documents with the focus on *SGML* and *HyTime* [3, 4, 11, 14, 15].

1993/1995

Workflow management and electronic publishing with the focus on the use of *HyTime* for ensuring the interoperability of time-dependent, structured information such as workflow information [12, 13, 41, 33, 45]. See also the dissertation [2, 38].

1995/1997

Electronic Publishing, global distributed information systems and database connectivity [18, 19, 20, 34, 45]; Object-oriented programming in *Java* [37, 44].

1997/1998

Supporting collaborative work by user trails, open hypermedia link services and software agents [5, 7, 17, 23, 28, 40].

1998 present

Open Hypermedia Systems with the focus on interoperability in OHSs [6, 8, 16, 21, 22, 24, 26, 27, 31, 32, 35, 36, 43, 46]; device independent generation of document contents, in particular for mobile users [10, 30].

Professional Experience

1988 – 1992

Tutor for Modula-2 at the Department of Computer Science at the University of Linz.

Summer 1989, 1990

Software developer for database applications for small and medium enterprises with the database system Progress. Company: SOL-Softwarelösungen, Salzburg.

Summer 1991

Software developer for user interface toolkits using the application framework ET++. Company: C.S.E., Salzburg.

May 1992 – December 1994

Research Associate at the Research Institute for Applied Knowledge Processing, Hagenberg, headed by Prof. Dr. Roland R. Wagner.

January 1995 – October 1996

Teaching and Research Associate (“Universitätsassistent”) at the Department of Information Systems at the Johannes Kepler University of Linz, headed by Prof. Dr. Gerti Kappel.

Teaching: *Information Systems in CIM* (with the focus on integration and interoperability), *Object-Oriented Programming in C++* and *Object-Oriented Programming in Java*.

November 1996 – June 1998

Senior Visiting Research Fellow at the Multimedia Research Group at the Department of Electronics and Computer Science at the University of Southampton, UK, supported by two grants of the Austrian National Science Foundation (“Forschungsförderungsfonds”, FWF, Grant No. JO1330-TEC and J1507-INF). The main research interests include the application of advanced database technology such as active mechanisms to open hypermedia systems (OHSs) as well as interoperability in OHSs.

July 1998 – June 1999

Teaching and Research Fellow at the Multimedia Research Group at the Department of Electronics and Computer Science at the University of Southampton, UK. The main research interests include trail based hypermedia systems and interoperability in open hypermedia systems.

Teaching: *CM313 Distributed Computing and Networks* and *CM316 Multimedia Systems*.

July 1999 – July 2000

Teaching and Research Associate (“Universitätsassistent”) at the Department of Information Systems, Linz.

Teaching: *Distributed Information Systems*, *Object-Oriented Programming in Java* and *Web-to-Database Connectivity*.

since July 2000

Senior Researcher at Salzburg Research Forschungsgesellschaft, Salzburg.

Projects

EUROPUBLISHING, 1992 – 1994

Project member of the European RACE-Project *R2042 EUROPUBLISHING*. The main research interests were in supporting distributed publishing processes by workflow technology.

WebDok, 1996

Technical head of the project *WebDok* supported by the Austrian Federal Ministry of Science, Transport, and Art (Grant No. GZ 140 1/4-I/A/8/95). The project focused on supporting publishing processes in the area of scientific documentation by World Wide Web and database technology.

MEMOIR, 1996 – 1998

Project member of the European ESPRIT-Project *22153 MEMOIR*. The project focused on a framework architecture for supporting information re-use. The main research interests include the support of cooperative work by matching users with similar interests based on information about their trails.

Gulliver, 1999 – 2001

Technical head of project *Gulliver* (in collaboration with Siemens PSE, Vienna, and the Department for Telecooperation at the University of Linz). Main aim of *Gulliver* is to develop an open framework for WAP (Wireless Application Protocol) based applications for mobile phones.

Trailist, 2000 - 2002

Project manager of *Trailist*, a project funded by the Austrian Forschungsförderungsfonds (FWF) under grant No. P14006-INF. *Trailist* proposes to build an open framework for supporting trail-based information access.

Publications

Thesis and Dissertation

- [1] REICH, S. Plausibilitätskontrollen im Rahmen eines objektorientierten Interface-Editors. Master's thesis, Johannes Kepler University of Linz, Austria, May 1992.
- [2] REICH, S. *De Modo Operandi: Towards the Interoperability of Workflow Information*. PhD thesis, University of Vienna, School of Social and Economical Sciences, Austria, Apr. 1995.

Refereed Journal Articles

- [3] BURGER, F., AND REICH, S. Design and implementation of an abstract SGML interface in Smalltalk. *Computer Standards & Interfaces. Special Issue on SGML 18* (1996), 71–78.
- [4] BURGER, F., AND REICH, S. Entwurf und Implementierung eines integrierten Dokumenten- und Workflowmanagement-Systems für elektronisches Publizieren. *Wirtschaftsinformatik 37, 2* (1996), 191–198. In German.
- [5] DEROURE, D. C., HALL, W., REICH, S., PIKRAKIS, A., HILL, G. J., AND STAIRMAND, M. Memoir – an open framework for enhanced navigation of distributed information. *Information Processing & Management. An International Journal* (2000). Accepted for publication.
- [6] GOOSE, S., HALL, W., AND REICH, S. Microcosm TNG: A framework for distributed open hypermedia. *IEEE Multimedia 7* (2000). Accepted for Publication.
- [7] REICH, S., CARR, L. A., DEROURE, D. C., AND HALL, W. Where have you been from here? Trails in hypertext systems. *ACM Computing Surveys — Symposium on Hypertext (published as electronic supplement) 31* (Dec. 1999).
- [8] REICH, S., WIIL, U. K., NÜRNBERG, P. J., DAVIS, H. C., GRØNBÆK, K., ANDERSON, K. M., MILLARD, D. E., AND HAAKE, J. M. Addressing interoperability in open hypermedia: The design of the open hypermedia protocol. *New Review of Hypermedia and Multimedia 5* (1999), 207–248.
- [9] SIKORA, H., GRÜNBAKER, P., HUMMEL, G., AND REICH, S. Object-oriented implementation aspects of an abstract relational database interface. *Structured Programming 14, 2* (1993), 86–91.

Refereed Conference Papers

- [10] AUSTALLER, G., HARTL, A., KAPPEL, G., KAPSAMMER, E., LECHLEITNER, C., MÜHLHÄUSER, M., REICH, S., AND RUDISCH, R. GulliverBeans: A tool for fine tuning data delivery in E-Commerce applications. In *Informationssysteme für E-Commerce. Fachtagung der GI-Fachgruppe 2.5.2 EMISA - Entwicklungsmethoden für Informationssysteme und deren Anwendung. 8.-10. Nov. 2000, Universität Linz, Österreich* (Nov. 2000).
- [11] BURGER, F., QUIRCHMAYR, G., REICH, S., AND TJOA, A. M. Managing structured documents in distributed publishing environments. In *Proceedings of DEXA 94, Conference on Database and Expert Systems, Athens, Greece* (Berlin/Heidelberg/New York, Aug. 1994), Vol. 856 of *LNCS*, Springer, pp. 83–92.
- [12] BURGER, F., AND REICH, S. Usability of groupware products for supporting publishing workflows. In *Workflow Management. Challenges, Paradigms and Products. Proceedings of Connectivity 1994. Ninth Austrian-Hungarian Informatics Conference* (Wien/München, Oct. 1994), R. Oldenbourg, pp. 51–64.
- [13] BURGER, F., AND REICH, S. HyTime architectural forms for workflow processing. In *2nd International Conference on the Application of HyTime. Vancouver* (Aug. 1995). Published electronically as ftp://ftp.techno.com/pub/HyTime/conferences/August_16-17,_1995,_Vancouver_B.C./papers/workflow.ps.
- [14] BURGER, F., AND REICH, S. Managing WWW-documents in distributed publishing environments. In *Enter 95: Information and Communication Technologies in Tourism* (Berlin/Heidelberg/New York, 1995), Springer, pp. 160–170.
- [15] BURGER, F., REICH, S., AND WAGNER, R. R. Information technology as the glue for a concurrent publishing environment. In *Advances in Databases and Expert Systems. Proceedings of the 7th International Conference on Systems Research, Informatics and Cybernetics, held in Baden-Baden, Germany* (Aug. 1994), pp. 187–196.
- [16] DAVIS, H. C., MILLARD, D. E., REICH, S., BOUVIN, N. O., GRØNBÆK, K., NÜRNBERG, P. J., SLOTH, L., WIL, U. K., AND ANDERSON, K. M. Interoperability between hypermedia systems: The standardisation work of the OHSWG (technical briefing). In *Proceedings of the '99 ACM Conference on Hypertext, February 21-25, 1999, Darmstadt, Germany* (Feb. 1999), pp. 201–202.
- [17] DEROURE, D. C., HALL, W., REICH, S., PIKRAKIS, A., HILL, G. J., AND STAIRMAND, M. An open framework for collaborative distributed

- information management. *Seventh International World Wide Web Conference (WWW7)*, 14 - 18 April 1998, Brisbane, Australia 30 (1998), 624–625. Published in Computer Networks and ISDN Systems.
- [18] EHMAYER, G., KAPPEL, G., AND REICH, S. Connecting databases to the web: A taxonomy of gateways. In *Proceedings of the 8th International Conference on Database and Expert Systems Applications (DEXA 97)*, Toulouse, France, Springer (Sept. 1997), Vol. 1308 of *LNCS*, pp. 1–15.
- [19] KAPPEL, G., RAUSCH-SCHOTT, S., REICH, S., AND RETSCHITZEGGER, W. The benefits of open hypermedia systems using advanced database concepts. In *Informatik 96, "Beherrschung von Informationssystemen". Jahrestagung der GI und der OCG, Klagenfurt* (Sept. 1996), H. C. Mayr, Ed., Oldenbourg, pp. 179–195.
- [20] KAPPEL, G., RAUSCH-SCHOTT, S., REICH, S., AND RETSCHITZEGGER, W. Hypermedia document and workflow management based on active object-oriented databases. In *HICSS 97 — 30th Hawaii International Conference on System Sciences. Jan. 7 — 10* (1997), IEEE Computer Society Press.
- [21] MILLARD, D. E., MOREAU, L., DAVIS, H. C., AND REICH, S. FOHM: A fundamental open hypertext model for investigating interoperability between hypertext domains. In *Proceedings of the '00 ACM Conference on Hypertext, May 30 - June 3, San Antonio, TX* (2000), pp. 93–102.
- [22] MOREAU, L., GIBBINS, N., DEROURE, D., EL-BELTAGY, S., HALL, W., HUGHES, G., JOYCE, D., KIM, S., MICHAELIDES, D., MILLARD, D., REICH, S., TANSLEY, R., AND WEAL, M. SoFAR with DIM agents. An agent framework for distributed information management. In *PAAM 2000. The Fifth International Conference and Exhibition on The Practical Application of Intelligent Agents and Multi-Agents. April 10 - 12, 2000, Manchester, UK* (Apr. 2000), pp. 369–388.
- [23] PIKRAKIS, A., BITSIKAS, T., SFAKIANAKIS, S., HATZOPOULOS, M., DEROURE, D. C., HALL, W., REICH, S., HILL, G. J., AND STAIRMAND, M. Memoir — software agents for finding similar users by trails. In *PAAM98. The Third International Conference and Exhibition on The Practical Application of Intelligent Agents and Multi-Agents. March 23-25, London, UK* (Mar. 1998), pp. 453–466.
- [24] REICH, S., GRIFFITHS, J. P., MILLARD, D. E., AND DAVIS, H. C. Solent — a platform for distributed open hypermedia applications. In *Database and Expert Systems Applications. 10th Intl. Conference, DEXA 99, Florence, Italy* (Berlin/Heidelberg/New York, Aug. 1999), T. Bench-Capon, G. Soda, and A. M. Tjoa, Eds., Vol. 1677 of *LNCS*, Springer, pp. 802–811.

- [25] SIKORA, H., HUMMEL, G., AND REICH, S. A toolset for experimental prototyping of database-based applications. In *Proceedings of CASE 4 — Software Tools and Methods* (Rijeka, 1992), Hravatska Gospodarska Komora, pp. 95–110.
- [26] TZAGARAKIS, M., REICH, S., KAROUSOS, N., AND CHRISTODOULAKIS, D. Naming as a fundamental concept of open hypermedia systems. In *Proceedings of the '00 ACM Conference on Hypertext, May 30 - June 3, San Antonio, TX* (2000), pp. 103–112.
- [27] WIIL, U. K., NÜRNBERG, P. J., HICKS, D., AND REICH, S. A development environment for building component-based open hypermedia systems. In *Proceedings of the '00 ACM Conference on Hypertext, May 30 - June 3, San Antonio, TX* (May 2000), pp. 266–267.

Refereed Workshop Papers

- [28] DEROURE, D. C., HALL, W., REICH, S., PIKRAKIS, A., HILL, G. J., AND STAIRMAND, M. An open architecture for supporting collaboration on the web. In *WET ICE 98 — IEEE Seventh International Workshops on Enabling Technologies: Infrastructure for Collaborative Enterprises, June 17-19, Stanford University, California* (1998), pp. 90–95.
- [29] GRIFFITHS, J. P., REICH, S., AND DAVIS, H. C. The ContentSpec Protocol: Providing document management services for OHP. In *Proceedings of the 5th Workshop on Open Hypermedia Systems, ACM Hypertext '99 Conference, Darmstadt, Germany, February 21-25. Available as Report No. CS-99-01 from the Dept. of Computer Science, 6700 Aalborg University Esbjerg, Denmark* (1999), U. K. Wiil, Ed., pp. 29–33.
- [30] HARTL, A., AUSTALLER, G., KAPPEL, G., LECHLEITNER, C., MÜHLHÄUSER, M., REICH, S., AND RUDISCH, R. Gulliver — a development environment for WAP based applications. In *Poster Proceedings of WWW9, the Ninth International World Wide Web Conference* (May 2000), pp. 26–27.
- [31] MILLARD, D. E., REICH, S., AND DAVIS, H. C. Reworking OHP: the road to OHP-Nav. In *Proceedings of the 4th Workshop on Open Hypermedia Systems, ACM Hypertext '98 Conference, Pittsburgh, PA, June 20-24. Available as Report No. CS-98-01 from the Dept. of Computer Science, 6700 Aalborg University Esbjerg, Denmark* (June 1998), U. K. Wiil, Ed., pp. 48–53.
- [32] MILLARD, D. E., REICH, S., AND DAVIS, H. C. Dynamic service discovery and invocation in OHP. In *Proceedings of the 5th Workshop on Open Hypermedia Systems, ACM Hypertext '99 Conference, Darmstadt, Germany,*

February 21-25. Available as Report No. CS-99-01 from the Dept. of Computer Science, 6700 Aalborg University Esbjerg, Denmark (1999), U. K. Wiil, Ed., pp. 38–42.

- [33] REICH, S. Interoperability of workflow information. In *Proceedings of the Doctoral Consortium at CAiSE 95, Jyväskylä, Finland* (1995), pp. 42–43.
- [34] REICH, S. The notion of active object-oriented databases for open hypermedia systems. In *Proceedings of the 2nd Workshop on Open Hypermedia Systems, ACM Hypertext '96, Washington, D.C., March 16-20. Available as Report No. ICS-TR-96-10 from the Dept. of Information and Computer Science, University of California, Irvine* (1996), U. K. Wiil and S. Demeyer, Eds., pp. 55–60.
- [35] REICH, S. How OHPs LocSpecs could benefit from ISO/IEC 10744. In *Proceedings of the 3rd Workshop on Open Hypermedia Systems, ACM Hypertext '97, Southampton, UK, April 6-11. Available as Report No. SR-97-01 from the Danish National Centre for IT Research, 8000 Aarhus C, Denmark* (1997), U. K. Wiil, Ed., pp. 98–105.
- [36] REICH, S., MILLARD, D. E., AND DAVIS, H. C. Naming in OHP. In *Proceedings of the 5th Workshop on Open Hypermedia Systems, ACM Hypertext '99 Conference, Darmstadt, Germany, February 21-25. Available as Report No. CS-99-01 from the Dept. of Computer Science, 6700 Aalborg University Esbjerg, Denmark* (1999), U. K. Wiil, Ed., pp. 43–47.

Books

- [37] EHMAYER, G., AND REICH, S. *Java in der Anwendungsentwicklung — Objektorientierung, Verteilung, Datenbanken*. dpunkt Verlag, Heidelberg, June 1998 (In German). Further information can be obtained from <http://www.dpunkt.de/produkte/JAVA-SE.html>.
- [38] REICH, S. *De Modo Operandi: Towards the Interoperability of Workflow Information*, Vol. 34. WUV-Universitätsverlag, 1997. A revised version of the dissertation. Further information can be obtained from http://www.wuv.co.at/opsi-bin/x-wkorbv1_dtl.pl?ARTNR=VS0W306.
- [39] REICH, S., AND ANDERSON, K. M., Eds. *Two Takes on Information Structuring: Proceedings of the 6th Workshop on Open Hypermedia Systems and the 2nd Workshop on Structural Computing* (2000), Springer Verlag. Lecture Notes in Computer Science (LNCS) No. 1903.

Other Publications

- [40] ANDRIC, M., GRIFFITHS, J. P., REICH, S., DAVIS, H. C., AND HALL, W. Dynamically generating branching guided tours using agents and trails.

- In *ETRAN 98 — XLII Conference for Electronics, Telecommunications, Computers, Automation, and Nuclear Engineering. June 2-5, Vrnjacka Banja, Yugoslavia* (June 1998).
- [41] BURGER, F., QUIRCHMAYR, G., REICH, S., AND TJOA, A. M. Using HyTime for modeling publishing workflows. *ACM SIGOIS Bulletin Special Issue: Business Process Management Systems: Concepts, Methods and Technology* 16, 1 (Aug. 1995), 39–45.
 - [42] DAVIS, H. C., REICH, S., AND MILLARD, D. A proposal for a common navigational hypertext protocol. Tech. rep., Dept. of Electronics and Computer Science, 1997. Presented at 3.5 Open Hypermedia System Working Group Meeting, Aarhus University, Denmark. September 8-11.
 - [43] DAVIS, H. C., MILLARD, D. E., AND REICH, S. OHP — communicating between hypermedia aware applications. In *Towards a New Generation of HTTP. A workshop on global hypermedia infrastructure held in conjunction with the Seventh International World Wide Web Conference (WWW7), 14 - 18 April 1998, Brisbane, Australia.* (1998).
 - [44] EHMAYER, G., AND REICH, S. Kaffee für Kaffeemaschinen: Java, JavaScript und Konsorten. *On-line Mitteilungen*, 57 (Feb. 1997), 6–12. In German.
 - [45] KAPPEL, G., AND REICH, S. Tankstellen am Infohighway. Bibliotheken im Jahr 2000 aus informationstechnischer Sicht. *Mitteilungen der Vereinigung Österreichischer Bibliothekarinnen und Bibliothekare*, 3/4 (1997), 62–72. In German.
 - [46] REICH, S., AND DAVIS, H. C. The need for an open hypertext protocol. *ACM SIGWeb Newsletter* 8, 1 (Feb. 1999), 21–23.

Siegfried Reich

24th July 2000