

References

- André E., Rist T.: Synthesizing Illustrated Documents: A Plan-Based Approach. Proceedings of InfoJapan'90, Vol. 2, pp. 163-170, Tokyo, 1990 (cf. Part 2, Pragmatics, Part 5, Project WIP)
- André E., Finkler W., Graf W., Rist T., Schauder A., Wahlster W.: WIP: The Automatic Synthesis of Multimodal Presentations. In: Maybury M. (ed.), Intelligent Multimedia Interfaces, pp. 75-93. AAAI Press, 1993. (cf. Part 2, Pragmatics, Part 5, Project WIP)
- André E., Rist T.: Generating Coherent Presentations Employing Textual and Visual Material. In: Mc Kevitt P. (ed.): Artificial Intelligence Review, Special Volume on the Integration of Natural Language and Vision Processing, Vol. 9, No. 2-3, pp. 147-165, 1995. (cf. Part 2, Pragmatics, Part 5, Projects WIP, PPP)
- André E., Rist T.: Referring to World Objects with Text and Pictures. In Proc. of COLING'94, Vol. 1 pp. 530-534, 1994 (cf. Part 2, Pragmatics, Part 5, Project WIP)
- E. André, Müller J., Rist T.: WIP/PPP: Knowledge-Based Methods for Fully Automated Multimedia Authoring. In Proc. of EUROMEDIA '96, pp. 95-102, 1996. (cf. Projects WIP, PPP)
- André E., Rist T., Müller J.: Integrating Reactive and Scripted Behaviors in a Life-Like Presentation Agent. In Proc. of the Second International Conference on Autonomous Agents (Agents '98) pp. 261-268, Minneapolis/St. Paul, 1998. (cf. Projects PPP, AiA)
- André E., Rist T., Müller J.: WebPersona: A Life-Like Presentation Agent for the World-Wide Web. In: Knowledge-Based Systems, Vol. 11, pp. 25-36, 1998. (cf. Projects PPP, AiA)
- André E., Herzog G., Rist T.: Multimedia Presentation of Visual Data: Proceedings of AAAI-94 Workshop on the Integration of Natural Language and Vision Processing, 74-82, 1994.
- André E., Rist T.: The Design of Illustrated Documents as a Planning Task. In: M. Maybury (ed.), Intelligent Multimedia Interfaces, pp. 94-116. AAAI Press, 1993. Austin J.L.: How to do Things with Words Oxford University, 1962. (cf. Part 2, Pragmatics).
- Ball G., Ling D., Kurlander D., J. Miller J., Pugh D., Skelly T., Stankosky A., Thiel D., van Dantzich M., Wax T.: Lifelike Computer Characters: the Persona project at Microsoft. In: Bradshaw J.M. (ed.) Software Agents, pp. 191-222, AAAI/MIT Press, 1997. (cf. Part 5)
- Bertin J.: Sémiologie graphique. Mouton & Cie, Paris, 1967. Translated to English: Bertin J.: Semiology of graphs. Univ. Wisconsin Press, 1983
- Bertin J.: Graphics and Graphic Information Processing, De Gruyter, 1981
- Bieger G.R., Glock M.D.: Comprehending Spatial and Contextual Information in Picture-Text Instructions. In: The Journal of Experimental Education, Vol. 45, No. 4, pp. 181-188, 1986.
- Bolz D., Wittur K.: Die Umsetzung deklarativer Beschreibungen von Graphiken durch Simulated Annealing. In: Kansy K., Wisskirchen P. (eds.) Graphik und KI, pp. 68-77, Springer, 1990.
- Bolz D.: Some Aspects of the User Interface of a Knowledge Based Beautifier for Drawings. In Proc. of the 1993 International Conference on Intelligent User Interfaces, pp. 45-51, 1993.
- Bossler J.D., Pendleton D.L., Swetnam G.F., Vitalo, R.L. Schwarz, C.R. Alper S., Danley H.P.: Knowledge-Based Cartography: The NOS experience. In The American Cartographer, Vol. 15, No. 2, pp. 149-161, 1991.
- Burger J.D., Marshall R.J.: The Application of Natural Language Models to Intelligent Multimedia. In: Maybury M. (ed.), Intelligent Multimedia Interfaces, pp. 174-196, AAAI Press, 1993. (Project AIMI)
- Butz A.: Animation with CATHI: In Proc. of AAAI'97, 1997.
- Butz A., Krüger T.: Lean Modeling - The Intelligent Use of Geometrical Abstraction in 3D Animations. In Proc. of ECAI'96, pp. 246-250, 1996.
- Casner S.M.: A Task-Analytic Approach to the Automated Design of Graphic Presentations. In ACM Transactions on Graphics, Vol. 10, No. 2, pp. 111-151, 1991. (cf. Part 3)
- Chuah M.C., Roth S. F., Kolojejchick J., Mattis J., Jaare O.: SageBook: Searching Data-Graphics by Content. In Proc. of CHI'95, 1995.
- Cleveland W.S., McGill R.: Graphical Perception: Theory, experimentation, and application to the development of graphical methods. In: Journal of the American Statistical Association, Vol. 79, No. 387, 1984.
- Cruz-Neira C., Sandin, D.J., DeFanti, T.A., Kenyon, R.V., and Hart, J.C.: The CAVE: Audio Visual Experience Automatic Virtual Environment," Communications of the ACM, Vol. 35, No. 6, pp. 65-72, 1992.
- Cruz-Neira, C., Sandin, D.J., and DeFanti, T.A. "Surround-Screen Projection-Based Virtual Reality: The Design and Implementation of the CAVE. In: Proc. of SIGGRAPH '93, pp. 135-142, 1993
- Dengler E., Friedell M., Marks J.: Constraint-Driven Diagram Layout. In Proc. of IEEE Symposium on Visual Languages, pp. 330-335, 1993.
- Dooley D., Cohen M.: Automatic Illustration of 3D Geometric Models: Lines. In Computer Graphics (Proc. of the 1990 Symposium on Interactive 3D Graphics), Vol. 24, No. 2, pp. 77-82, 1990.
- Espe H.: Konnotationen als Ergebnisse fotografischer Techniken. In Zeitschrift für Semiotik, Vol. 7, pp. 63-71, 1985.
- Feiner S.: APEX: An experiment in the automated creation of pictorial explanations. In IEEE Computer Graphics and Applications, Vol. 5, No. 11, pp. 29-39, 1985.

- Feiner S., McKeown K.R.. Automating the Generation of Coordinated Multimedia Explanations. In: IEEE Computer Vol 24(10), pp. 33-41. (Project COMET)
- Feiner S., Litman D.J., McKeown K.R., Passonneau R.J.: Towards Coordinated Temporal Multimedia Presentations. In: Maybury M. (ed.), Intelligent Multimedia Interfaces, pp. 139-147. , AAAI Press, 1993. (Project COMET).
- Feiner S., Mackinlay J., Marks J.: Notes of the AAAI'93 Tutorial on Automating the Design of Effective Graphics. 1993.
- Feiner S., MacIntyre B., Seligmann D.: Knowledge-Based Augmented Reality. In: ACM Communications Vol. 36, No. 7, pp. 52-62, 1993.
- Feiner S., MacIntyre B., Haupt M., Solomon E.: Windows on the World: {2D} Windows for {3D} Augmented Reality. In Proc. of the UIST'93, pp. 145-156, 1993.
- Feiner, S., MacIntyre, B., Höllerer, T., and Webster, T. A touring machine: Prototyping 3D mobile augmented reality systems for exploring the urban environment. In Proc. ISWC '97 (Int. Symp. on Wearable Computers), 1997. Also as: Personal Technologies, 1(4), pp. 208-217, 1997.
- Friedell M.: Automatic Synthesis of Graphical Object Descriptions. In Computer Graphics, Vol. 18, No. 2, pp. 53-62, 1984.
- Geller J., Shapiro C.: Graphical Deep Knowledge for Intelligent Machine Drafting. In Proc. of IJCAI'87, pp. 545-551, 1987.
- Goodman B. A., Multimedia Explanations for Intelligent Training Systems. . In: Maybury M. (ed.), Intelligent Multimedia Interfaces, pp 148-171, AAAI Press, 1993. (Project Visual Repair)
- Gnanamgari S.: Information Presentation through Default Displays. PhD. thesis, Dept. of Computer Science, University of Pennsylvania, 1981.
- Graf W.: Constraint-Based Graphical Layout of Multimodal Presentations. In: Costabile M. F., Catucci T., Levialdi S. (eds.) Advanced Visual Interfaces (Proceedings of AVI '92), pp. 365-385, World Scientific Press, 1992.
- Grosz B.J, Sidner C.L.: Attention, Intentions, and the Structure of Discourse. Computational Linguistics Vol. 12, pp. 175-204. 1986. (cf. Focus structure, part 2)
- Hartmann K., Preim P., Strothotte T.: Describing Abstraction in Rendered Images through Figure Captions. In: Electronic Transactions on Artificial Intelligence: News Journal on Intelligent User Interfaces, Volume 7, 1998.
- Hartmann K., Preim P., Strothotte T.: Describing Abstraction in Rendered Images through Figure Captions. In: Proc. of the ECAI '98 workshop on "Combining AI and Graphics for Intelligent User Interfaces of the Future" pp. 39-54. 1998.
- Hertzberg J., Gordon T., Horz A.: Planner for "Beautifying" Business Graphics. TASSO Report No. 45, GMD St. Augustin, 1993.
- Herzog G., André E., Baldes S., Rist T.: Combining Alternatives in the Multimedia Presentation of Decision Support Information for Real-Time Control, 1998. (cf. Part 5, Project FLUIDS)
- Hower W., Graf W.: Research in Constraint-Based Layout, Visualization, CAD, and Related Topics: A Bibliographical Survey. In Proc. of the int. Workshop on Constraints for Graphics and Visualization (CGV'95), 1995.
- Huff D.: How to Lie with Statistics. Norton & Company. New York 1954. (Design knowledge)
- Hüther M., Rist T.: Entering a Shared Information Space Through Heterogeneous Communication Devices. In Proc. of the ECAI'98 Workshop on Combining AI and Graphics for the Interface of the Future, pp. 62-68, Brighton, UK, 1998.
- Houghton H.A., Willows D.M.: The Psychology of Illustration, Basic Research. Vol.1, Springer. 1987 (Design knowledge)
- Issing L.J.: Bilder als didaktische Medien. In: Issing L.J., Hannemann J. (eds.) Lernen mit Bildern, pp. 9-39. Institut für Film und Bild.
- Kamada T., Kawai S.: A Simple Method for Computing General Position in Displaying Three-Dimensional Objects In: Computer Vision, Graphics, and Image Processing, Vol. 43, No. 3, pp. 294-312, 1988.
- Kansy K., Bolz D., Kolb R., Schmitgen G.: Graphics Designer. In: Hoschka, P. (ed.) Computers as Assistants - A New Generation of Support Systems. Lawrence Erlbaum Associates, Inc., pp. 112-126, 1996.
- Kochhar S., Friedell M.: Control in Cooperative Computer-Aided Design. In Proc. of the UIST'90, pp. 143-151, 1990.
- Kosak A., Marks J., Shieber S.: A Parallel Genetic Algorithm for Network-Diagram Layout. In Proc. of the 4th Int. Conf. on Genetic Algorithms, pp.458-465, 1991.
- Krüger A., Rist T.: Since Less is often More: Methods for Stylistic Abstractions in 3D-Graphics, ACM Workshop on Effective Abstractions in Multimedia November 4, 1995 San Francisco, California.
- Lester J., Voerman J.L., Towns S.G., Callaway C.B.: Deictic Believability: Coordinated Gesture, Locomotion, and Speech in Lifelike Pedagogical Agents. In: Applied Artificial Intelligence Journal. Special issue on Interface Agents edited by E. André. pp. 384-414, 1998.
- Lieberman H.: Intelligent Graphics: A New Paradigm , Communications of the ACM, Vol. 39, No. 6, August 1996, pp. 38-48, 1996, Special Issue on New Paradigms for Using Computers.

- Lieberman H.: Mondrian: A Teachable Graphical Editor, in: Cypher A. (ed.): Watch What I Do: Programming by Demonstration, MIT Press, 1993.
- Lund H.H., Pagliarini L. Miglino O.: Artistic Design with Genetic Algorithms and Neural Networks. In: Proc. of the first NWGA. University of Vaasa, Vaasa, 1995.
- Lund H.H., Pagliarini L. Miglino O.: The Artificial Painter. In Proc. of ECAL'95 (European Conference on Artificial Life), 1995.
- Mackinlay J., Genesereth M.: Expressiveness and language choice. In Data and Knowledge Engineering, Vol. 1 No. 1, pp. 17-29, 1985.
- Mackinlay J.: Automating the Design of graphical presentations of relational information. In ACM Transaction on Graphics, Vol 5, No. 2, pp. 110-141, 1986.
- MacNeil R.: Adaptive perspectives: Case-based reasoning with TYRO, the graphics designer's apprentice. In: Proc. of IEEE'90 Workshop on Visual Languages, pp. 138-142, 1990.
- Maes P., T. Darrell, B. Blumberg, A. Pentland.: The Alive System: Full-body Interaction with Autonomous Agents. In: Proc. of Computer Animation'95 Conference, Switzerland. IEEE Press, 1995
- Mann W.C., Thompson S.A.: Rhetorical Structure Theory: Description and Construction of Text Structures. In: Kempen G. (ed.) Natural Language Generation: New Results in Artificial Intelligence, Psychology, and Linguistics, pp. 85-95. Martinus Nijhoff Publishers, Dordrecht. 1987.
- Marks J.: A syntax and semantics for network diagrams. In Proc. of IEEE'90 Workshop on Visual Languages, pp. 104-110, 1990.
- J. Marks: Discourse Coherence and the Consistent Design of Informational Graphics. In Workshop Notes from the Ninth National Conference on Artificial Intelligence, Anaheim, CA, pp. 29-36, 1991.
- Marks J.: The Competence of an Automated Graphic Designer. In: Long Island Conference on Artificial Intelligence and Computer Graphics, pp. 53-61, 1991.
- Maybury M.: Planning Multimedia Explanations Using Communicative Acts. In: M. Maybury (ed.), Intelligent Multimedia Interfaces, pp. 174-196. , AAAI Press, 1993. (Project AIMI).
- Metzger W.: Gesetze des Sehens. Frankfurt 1975. (cf. Part 2, Gestalt psychology)
- Muckenhaupt M.: Text und Bild. Gunter Narr Tübingen 1986. (cf. Part 2, Pragmatics)
- Novitz D.: Pictures and their Use in Communication Martinus Nijhoff, The Hague 1977. (cf. Part 2, Pragmatics)
- Marks J., Reiter E.: Avoiding Unwanted Conversational Implicatures in Text and Graphics. Proc. of AAAI'90, pp. 450-456.
- Preim B., Raab A., Strothotte T.: Illustrating anatomic models: A semi-interactive approach. In Proc. of Graphics Interface'97, pp. 105-113, 1997.
- Preim B.: Interaktive Illustrationen und Animationen zur Erklärung komplexer räumlicher Zusammenhänge, Dissertation , VDI-Verlag Fortschrittsberichte, Vol. 532, ISBN 3-18-35210-7, 1998
- Preim B., Michel R., Hartmann K., Strothotte T.: Figure Captions in Visual Interfaces. In Proc. of ACM Workshop on Advanced Visual Interfaces, ACM Press pp. 235-246, 1998.
- Preim B., Deussen O., Ritter F.: Interaktive Zusammensetzung von 3D-Modellen zur Unterstützung des räumlichen Verständnisses. In: Deussen O., Hinz V., Lorenz P. (eds.) Simulation und Visualisierung, SCS-Verlag Ghent, pp. 109-126, 1999.
- Rickel J., Johnson W.L.: Integrating pedagogical capabilities in a virtual environment agent. In Proc. of the First International Conference on Autonomous Agents, pp. 30-38, ACM Press, 1997.
- Rist T., André E.: Wissensbasierte Perspektivenwahl für die automatische Erzeugung von 3D-Objektdarstellungen. In Kansy K., Wisskirchen P. (eds.) Graphik und KI, pp. 48-57, Springer, 1990.
- Rist T., André E.: Incorporating Graphics Design and Realization into the Multimodal Presentation System WIP. In: Costabile M. F., Catarci T., Levialdi S. (eds.) Advanced Visual Interfaces (Proceedings of AVI '92), pp. 193-207, World Scientific Press, 1992.
- Rist T., André E.: From Presentation Tasks to Pictures: Towards a Computational Approach to Graphics Design. In Proc. of ECAI'92, pp. 764-768, 1992.
- Rist T.: Wissensbasierte Verfahren für den automatischen Entwurf von Gebrauchsgraphiken in der technischen Dokumentation. PhD Thesis Technische Fakultät, Universität des Saarlandes, 1995. Also published in the DIKI series, Vol. 139, Infix-Verlag, Sankt Augustin 1996.
- Rist T., André E Müller J.: Adding Animated Presentation Agents to the Interface. In Proc. of the 1997 International Conference on Intelligent User Interfaces, pp. 79-86, 1997.
- Rist T., Faconti G., Wilson M. (eds): Intelligent Multimedia Presentation Systems. Special Issue of the International Journal on the Development and Application of Standards for Computers, Data Communications and Interfaces. Volume 18, Number 6 and 7, 1997, North-Holland.
- Rome E.: Wahrnehmungspsychologie, Bilderkennung und der Graphikdesigner. TASSO Report No. 36. St. Augustin 1992.
- Roth S. F., Hefley W. E.: Intelligent Multimedia Presentation Systems: Research and Principles. In: Maybury M. (ed.), Intelligent Multimedia Interfaces, pp. 13-59. , AAAI Press, 1993. (System Sage).
- Roth S. F., Mattis J.: Data Characterization for Intelligent Graphics Presentation. In Proc. of CHI'90, pp. 193-200, 1990.

- Roth S. F., Kolojejchnick J., Mattis J., Goldstein J.: Interactive Graphic Design Using Automatic Presentation Knowledge. In Proc. of CHI'94, pp. 112-117, 1994.
- Searle J.R.: *Speech Acts: An Essay in the Philosophy of Language* Cambridge University Press, 1980.
- Seligmann D., Feiner S.: Automated Generation of Intent-Based 3D Illustrations. In Proc. of SIGGRAPH'91, pp. 123-132, 1991.
- Seligmann D., Feiner S.: Automated Generation of Intent-Based 3D Illustrations. In Proc. of the 1993 International Conference on Intelligent User Interfaces, pp. 37-44, 1993.
- Slack J., Conati C.: Encoding Information through Spatial Relations In: Costabile M. F., Catarci T., Levialdi S. (eds.) *Advanced Visual Interfaces (Proceedings of AVI '92)*, pp. 85-99, World Scientific Press, 1992.
- van Sommers P.: *Drawing and Cognition*. Cambridge University Press, 1984.
- Strothotte T., Schmid C.: Semiformale Darstellungen in wissensbasierten Systemen. In K. Kansy, P. Wisskirchen (eds.) *Graphik und KI*, pp. 1-9, Springer, 1990.
- Strothotte T.: *Computational Visualization, Graphics, Abstraction, and Interactivity*. Springer, 1998.
- Wahlster W., André E., Finkler W., Profitlich H.-J., Rist T.: Plan-Based Integration of Natural Language and Graphics Generation. In AI Journal, Vol. 63, pp. 387-427, 1993.
- Webster, A., Feiner, S., MacIntyre, B., Massie, W., Krueger T.: Augmented reality in architectural construction, inspection and renovation. In: Proc. ASCE Third Congress on Computing in Civil Engineering, pp. 913-919, 1996.
- Weiser M.: The Computer for the 21st Century. *Scientific American*, Vol 3, No. 265, pp. 94-104, 1991 (cf. Part 1)
- Weitzman L.: DESIGNER: A Knowledge-Based Graphic Design Assistant. ICS Report 8609, Institute for Cognitive Science, University of California, San Diego, 1988.
- Willows D.M., Houghton H.A.: *The Psychology of Illustration, Instructional Issues*. Vol.2, Springer. 1987 (Design knowledge)
- Zdybel F.: An Engine for Intelligent Graphics. In Bolc L. and Jarke M. (eds.) *Cooperative Interfaces to Information Systems*, pp. 45-63, Springer, 1986.
- Zhou, M., Feiner, S.: Visual Task Characterization for Automated Visual Discourse Synthesis. In: Proc. ACM CHI '98, 1998.
- Zhou, M., Feiner, S.: Efficiently Planning Coherent Visual Discourse. In: *Knowledge-Based Systems*, 10(5):275-286, Elsevier, 1998.
- Zhou, M., and Feiner, S.: The Representation and Usage of a Visual Lexicon for Automated Graphics Generation. In: Proc. IJCAI '97, pp. 1056-1062, 1997.
- Zhou, M., Feiner, S.: Top-down Hierarchical Planning of Coherent Visual Discourse. In: Proc. IUI '97, pp. 129-136, 1996.