

Obituaries

Alison Cawsey

Greg Michaelson*

Heriot-Watt University, UK

Alison Cawsey passed away in June 2009. She was a remarkable person and her death is a profound professional and personal loss. Born in 1963, Alison grew up in the south of England and, from 1981 to 1984, studied Natural Sciences at Jesus College Cambridge. During this period she met her life partner Richard. Alison always excelled academically but not always in the sporting arena; however, at Cambridge, like her dad, she finally found a sport she could sit down to: She took up rowing!

After completing her degree in Physics she spent a year as a volunteer at a National Children's Home. Among other things she helped disabled children organize their lives with the aid of a computer. This clearly influenced her choice of further study and career. Moving to the University of Edinburgh in 1985, she gained a distinguished Masters in Knowledge Based Systems in 1986, and a Ph.D. in Artificial Intelligence in 1989. Subsequently, she went on to carry out postdoctoral research at Cambridge and Glasgow, then teaching Computing at Glasgow before joining us at Heriot-Watt in 1995. Alison was promoted to Senior Lecturer in 2002. I am sure that, were it not for her long battle with cancer, she would have enjoyed considerable further academic advancement and recognition.

Alison's doctorate was awarded for her sterling research into the Computer Generation of Explanatory Dialogues. Explanation is an excellent way of characterizing Alison's many professional contributions: she was always concerned with making complicated ideas understandable, both as a researcher and as a teacher. Certainly, her research in this area was pioneering and influential: Her 1992 book from MIT Press based on her Ph.D. has over 120 citations, no mean feat given that most Ph.D.s are read by at most four people. Alison received sustained funding from the Research Councils, the European Union, and the Scottish Office. Most recently she worked on how to make personalized explanation systems for helping explain medical diagnoses from experts to patients. Her focus on cancer diagnosis drew both on her personal experience and her familiar desire to do things that would help other people.

Alison's excellence in teaching, from which so many students benefited, is also recognized internationally. Her highly cited book on Artificial Intelligence has been in print continuously since 1997, and has been translated into German and Hungarian. Her more recent book, with Rick Dewar, on Internet Technology and eCommerce shows both her versatility and engagement with our dynamically changing discipline. Students clearly like her books. One anonymous Amazon reviewer wrote: "I missed most of the lectures but thanks to this short and sweet book I passed my first year introduction to AI course. If you are a slack student taking an AI course—buy this book."

Alison was our colleague for 14 years. She was a pillar of our Department, contributing strongly to all our academic development activities. In particular, she ran our

* This is an edited version of the eulogy delivered at Alison's funeral by Greg, with contributions from her husband Richard Tobin, and her parents David and Kay Cawsey.

MSc projects and latterly our MSc program, both of which needed all of her customary tact, patience, and persuasion. For five years Alison kindly maintained the illusion that I managed her. Contrariwise, I depended on her strongly, as a shoulder to cry on, someone to moan at and to gossip with, someone with whom to share hard decisions. I'll remember a kind and gentle person, a fine colleague and an engaging friend.

We offer our warmest sympathy and solace to Alison's family: Her beloved husband Richard, children Sophie and Andrew, parents Kay and David, brothers Chris and Richard, to Richard's family, and to her close friends.

Janet Hitzeman

Massimo Poesio

University of Trento, Italy

David Day

MITRE Corporation, USA

Inderjeet Mani

MITRE Corporation, USA

Janet Hitzeman, best known for her work on temporal expressions, corpora, discourse, and information extraction, passed away on 18 May, aged 46, after a long struggle with illness. She was one of the funniest and most generous members of our community, and will be greatly missed.

Janet Marie Hitzeman was born in San Mateo, CA, on 9 August, 1962. After majoring in Math and Computer Science at UC Davis in 1984, she went on to get an MSc in Computer Science at USC, where she got interested in NLP particularly through the influence of Yigal Arens. After graduating she joined the AI group at Hughes Aircraft in Los Angeles, working on NLP, and spent a few fun years in LA that provided the material for many of her best-known stories (including "The Superglue Incident"). She then took the plunge and moved East, with the aim of getting a Ph.D. in Linguistics. In 1988 she moved to Rochester, NY, as part of the first group of Ph.D. students of the recently reformed Ph.D. program, led by Greg Carlson, who became her advisor.

It was a good time to be in Rochester. Faculty and students from the Computer Science, Linguistics, and Psychology departments formed a closely knit Cognitive Science community in which the intellectual exchange between areas was encouraged. Janet followed classes and graduate seminars with James Allen and Mike Tanenhaus, and was TA for Len Schubert, just like we students in CS followed graduate seminars with Sandro Zucchi, Peter Lasersohn, and Tom Bever. Janet's classmates and friends included Derek Gross, Graham Katz, Julie Sedivy, Beverly Spejevsky, Becca Webb, and Roberto Zamparelli in Linguistics; Peter Heeman, Marc Light, David Traum, and one of us (Massimo Poesio) among the NLP students in CS, as well as students of Dana Ballard such as Polly Pook. Social life and intellectual life mixed in events like pasta at Tom Bever's after the seminar. During this period she also began her collaboration and friendship with Greg Whitemore, then at Kodak, that was to continue later in Edinburgh.

In a very short time Janet identified tense and aspect, and temporal expressions in general, as her area of interest—an area that would remain the main focus of her research throughout her career. She went through her Ph.D. career very quickly, the first among her Linguistics colleagues to pass quals, the first to publish a paper at a major linguistics conference (Hitzeman 1991), and the first to graduate, in 1993, with a dissertation on “Temporal Adverbials and the Syntax-Semantics Interface” in which she proposed that the alternative interpretations of temporal adverbials like *for* could actually be derived from information structure without the need to stipulate an ambiguity (Hitzeman 1997).

When she finished her Ph.D., Marc Moens, then head of the Language Technology Group in Edinburgh, offered her her first job. Here is Marc remembering how this came about:

I ... interviewed Janet for the LTG job in a car in Rochester, driving to Len Schubert’s house for an ACL Program Committee party. It was a cold January evening. I realized pretty soon that it would be great to have her join the LTG. At the end of the interview, she parked the car next to what turned out to be a ditch filled with snow. As I got out of the car, I sank to my knees in the snow and couldn’t move. Janet looked at me and said, “And I thought I was doing so well with the other interview questions.”

The snow didn’t change Marc’s mind, and Janet spent six years in Edinburgh, continuing her work on temporal expressions but also starting research in new areas including discourse, natural language generation, and prosody. Her work on temporal expression interpretation led to her most cited article (Hitzeman, Moens, and Grover 1995), also included in *The Language of Time*, the recent collection of classics in temporal expression interpretation edited by Mani et al. (Mani, Pustejovsky, and Gaizauskas 2005). Her work on the ILEX NLG project (Hitzeman, Mellish, and Oberlander 1997) resulted instead in her getting interested in discourse, in particular the effect of local and global salience on the interpretation of anaphoric expressions (Hitzeman and Poesio 1998; Poesio et al. 2004). This research was grounded in empirical data resulting from an annotation effort that Janet started and that was to lead eventually to the creation of the GNOME corpus. She also became interested in the relation between discourse structure and prosody, getting involved in one of the first projects attempting to use discourse information to improve speech synthesis (Hitzeman et al. 1998). Finally, she became a key element of the social life at the Human Communication Research Centre, which had at its heart the Friday pub night at Maxie’s that she instituted and drove forward with Matt Crocker and Shona Douglas. Here is Matt reminiscing about that time:

I remember those Maxie’s evenings very fondly ... indeed, one of the most positive associations I have with my time in Edinburgh. Very often those evenings began with Janet, Shona [Douglas], and I (the hard-core Maxie’s team) sharing a bottle of Montepulciano, as the rest of the crowd slowly trickled in ... Great times.

In 2000 Janet moved back to the U.S. to work at MITRE Bedford, where she continued her research on corpus annotation, discourse, and temporal expressions but moved the primary application focus to information extraction.

At MITRE, Janet was a resident expert on the design and development of annotation schemes, and was happiest when up close to the linguistic data, especially non-garden-variety corpora such as financial filings, disease-tracking e-mails, chat room logs, blogs, and so forth. In her early years at MITRE Janet contributed to work on developing event extraction systems, working largely with rule-based mechanisms that exploited her

understanding and interests in how language could express information of relevance to various tasks. A hallmark of her work was the close interaction of annotated corpus development and the design of heuristics grounded in that data. She contributed to the early versions of standards like TimeML, and was a key figure behind the development of SpatialML.

Janet was a key contributor in the development of cutting-edge natural language processing applications in such diverse areas as global disease outbreak monitoring, topic tracking in chat, and fraud detection from financial data. Among the best known papers resulting from Janet's work on information extraction while at MITRE are Mani et al. (2008) on SpatialML and Wellner et al. (2007) on de-identification. At the time of her death, Janet was in her second year as principal investigator of a project developing a prototype to monitor World Health Organization disease outbreak announcements. This system was able to exploit the unique aspects of this "micro-genre" to achieve very high levels of accuracy in automatically recognizing and mapping disease outbreak information with Google Earth (Hitzeman 2008). Janet also got involved in research on using dialogue for collaborative learning, in cooperation with Brad Goodman and colleagues (Goodman et al. 2005). Last but not least, she developed large portions of hand-annotated corpora still used to pursue research of various kinds: In addition to the SpatialML data, she was the key annotator for the cross-document coreference annotation corpus developed for the 2007 Johns Hopkins Summer Workshop on coreference resolution (Day et al. 2008).

Janet gained the respect of a wide variety of staff in the company. She was sought after not only for her expertise and diligence but as one of the most considerate and pleasant of colleagues to work with, always at hand with a wry comment or an astute linguistic observation. She managed to continue contributing to the area of the linguistics of temporal expressions, even as her MITRE work diverged into many different areas.

Janet was always at the center of social activities at conferences like ACL and LREC, and at summer schools like ESSLLI, and was popular with everybody in the community. This was because she was incredibly warm and always had a charming interest in what people were up to, in research and in personal life. An additional reason for her popularity was that she was a great storyteller and a great listener. Her e-mails were always eagerly received as they would always contain consistently funny accounts of her encounters with Superglue, dogs, or camels. In a word, she was a great source of joy for all of us.

References

- Day, D., J. Hitzeman, M. Wick, K. Crouch, and M. Poesio. 2008. A corpus for cross-document coreference. In *Proceedings of LREC*, pages 2996–2999, Marrakesh.
- Goodman, B. A., F. N. Linton, R. D. Gaimari, J. M. Hitzeman, H. J. Ross, and G. Zarrella. 2005. Using dialogue features to predict trouble during collaborative learning. *User Modeling and User-Adapted Interaction*, 15(1–2):85–134.
- Hitzeman, J. M. 1991. Aspect and adverbials. In *Proceedings of SALT I*, pages 107–127, Ithaca, NY. Cornell Working Papers, Cornell University.
- Hitzeman, J. M. 1997. Semantic partition and the ambiguity of sentences containing temporal adverbials. *Natural Language Semantics*, 5(2):87–100.
- Hitzeman, J. M. 2008. Meg: Mapping epidemic growth. MITRE Innovation Exchange, June. <http://www.mitre.org/news/events/exchange08/3673.pdf>.
- Hitzeman, J., A. Black, P. Taylor, C. Mellish, and J. Oberlander. 1998. On the use of automatically generated discourse-level information in a concept-to-speech synthesis system. In *Proceedings of the International Conference on Spoken Language Processing (ICSLP98)*, Paper 591, pages 2763–2766, Sydney, Australia.

- Hitzeman, J., C. Mellish, and J. Oberlander. 1997. Dynamic generation of museum Web pages: The intelligent labelling explorer. *Journal of Archives and Museum Informatics*, 11:107–115.
- Hitzeman, J., M. Moens, and C. Grover. 1995. Algorithms for analysing the temporal structure of discourse. In *Proceedings of the EACL*, pages 253–260, Dublin, Ireland.
- Hitzeman, J. and M. Poesio. 1998. Long-distance pronominalisation and global focus. In *Proceedings of ACL/ COLING, vol. 1*, pages 550–556, Montreal.
- Mani, I., J. Hitzeman, J. Richer, D. Harris, R. Quimby, and B. Wellner. 2008. Spatialml: Annotation scheme, corpora, and tools. In *Proceedings of LREC*, pages 410–415, Marrakesh.
- Mani, I., J. Pustejovsky, and R. Gaizauskas, editors. 2005. *The Language of Time: A Reader*. Oxford University Press, Oxford.
- Poesio, M., R. Stevenson, B. Di Eugenio, and J. M. Hitzeman. 2004. Centering: A parametric theory and its instantiations. *Computational Linguistics*, 30(3):309–363.
- Wellner, B., M. Huyck, S. Mardis, J. Aberdeen, A. Morgan, L. Peshkin, A. Yeh, J. Hitzeman, and L. Hirschman. 2007. Rapidly retargetable approaches to de-identification in medical records. *Journal of the American Medical Informatics Association*, 4(5):564–573.

Hozumi Tanaka

Timothy Baldwin

University of Melbourne, Australia

Takenobu Tokunaga

Tokyo Institute of Technology, Japan

Jun'ichi Tsujii

University of Tokyo, Japan, and University of Manchester, UK

Hozumi Tanaka—or Tanaka-*sensei* as he was fondly known to his colleagues and students in Japanese—passed away at the age of 67 in the early morning of 27 July 2009. He is survived by his wife Reiko and two sons.

Tanaka-*sensei's* primary contributions to natural language processing (NLP) are in parsing and semantic analysis. In parsing, he extended the GLR parsing algorithm to incorporate probabilities, multiple connection tables, and simultaneously carry out morphological and syntactic analysis for non-segmenting languages such as Japanese (Tanaka, Tokunaga, and Aizawa 1993; Inui et al. 1997; Shirai et al. 2000). His research on semantic analysis covered a broad spectrum, encompassing word sense disambiguation (Fujii et al. 1998), spoken language understanding for virtual agent systems (Shinyama, Tokunaga, and Tanaka 2000), lexical semantic approaches to query expansion in information retrieval (Mandala, Tokunaga, and Tanaka 2000), and metaphor processing (Iwayama, Tokunaga, and Tanaka 1990). He also carried out research on machine translation (Tanaka, Isahara, and Yasuhara 1983; Tanaka 1999b; Baldwin and Tanaka 2000), computer-assisted language learning (Bilac, Baldwin, and Tanaka 2002), speech recognition (Itou, Hayamizu, and Tanaka 1992; Li, Tanaka, and Tokunaga 1995), dialogue systems (Akiba and Tanaka 1994; Funakoshi, Tokunaga, and Tanaka 2002), and automatic music generation (Suzuki, Tokunaga, and Tanaka 1999). He was the author or editor of a number of popular introductory texts on NLP in Japanese (Tanaka 1989, 1999a).

Tanaka-*sensei* was the technical lead on the Japanese government-funded CICC Machine Translation Project (1987–1995) between East and South-East Asian languages

(Japanese, Chinese, Thai, Indonesian, and Malay). He also initiated a project on language resources for Asian languages which was funded by the Japanese Ministry of Education, and organized a number of workshops on the topic. The workshop series on Asian Language Resources, which had its seventh iteration at ACL-IJCNLP 2009, grew out of this. These initiatives laid the bedrock for the establishment of the Asian Federation of Natural Language Processing (AFNLP) in 2005.

Tanaka-*sensei* was a strong advocate of collaborative efforts to create and share language resources for NLP research. This commitment led to him founding GSK (an acronym for *Gengo Shigen Kyokai*, which literally translates as the “Language Resource Association”) in 2005, a non-profit organization intended to promote the development and distribution of speech and written language resources in Japan, with the ultimate goal of extending its reach throughout Asia.

Tanaka-*sensei* was born in Yamanashi, Japan, on 2 October 1941. He graduated from the Tokyo Institute of Technology in 1966 with a Masters degree in Control Engineering, and immediately commenced employment at the Electrotechnical Laboratory (ETL). He remained at ETL until 1983, working on topics including parsing, semantic analysis, machine translation, logic programming, and information extraction. He was actively involved in the planning and execution of the Fifth Generation Computer Systems project, an ambitious attempt by the Japanese government to develop next-generation “knowledge information processing systems” (Moto-oka 1983). Tanaka-*sensei* received his Ph.D. from the Tokyo Institute of Technology in 1981 (Tanaka 1981), and accepted an Associate Professorship at the Tokyo Institute of Technology in 1983. He became a full professor in 1986, and remained in that position until his retirement from the university in 2005. As is common in Japan, on retirement from the national university system, he took up a professorship at a private university, namely Chukyo University; he remained in this position until March 2009. During his combined time at the Tokyo Institute of Technology and Chukyo University, he supervised more than 200 students (including 27 Ph.D. students). From April 2009 he held a Research Professorship at the Japan Advanced Institute of Science and Technology.

Tanaka-*sensei* gave generously to the research community, most notably serving as the President of the Japanese Association for Natural Language Processing (1996–1998), President of the Asia–Pacific Association for Machine Translation (1996–1999), President of the International Association for Machine Translation (1997–1999), and President of the Japanese Society for Artificial Intelligence (2003–2005). He was also a member of the International Committee on Computational Linguistics, and a Fellow of the Japanese Association for Natural Language Processing and the Japanese Society for Artificial Intelligence.

In addition to his sharp intellect, Tanaka-*sensei* is fondly remembered for his caring nature, unflappable good humor, modesty, and all-round likeability. To his students and research associates, he was a true father figure who took a genuine interest in their personal and academic welfare. The “Tanaka Lab” was always a hive of research activity and intellectual stimulation, but at the same time a haven from the pressures of daily life in Tokyo and a safe house for the large numbers of foreign students who studied there. In a characteristically self-deprecating moment when asked what the secret to academic success was, Tanaka-*sensei* once remarked, “That’s easy — you get a job at a good university, which will attract good students, who will do good work; after enough years of that, you’ll start kidding yourself that it’s you who’s doing the work!”. He truly was a one-of-a-kind who is sorely missed by his former students, colleagues, and the Japanese NLP community to which he gave so much.

References

- Akiba, Tomoyoshi and Hozumi Tanaka. 1994. A Bayesian approach for user modeling in dialogue systems. In *Proceedings of the 15th International Conference on Computational Linguistics (COLING '94)*, pages 1212–1218, Kyoto.
- Baldwin, Timothy and Hozumi Tanaka. 2000. The effects of word order and segmentation on translation retrieval performance. In *Proceedings of the 18th International Conference on Computational Linguistics (COLING 2000)*, pages 35–41, Saarbrücken.
- Bilac, Slaven, Timothy Baldwin, and Hozumi Tanaka. 2002. Bringing the dictionary to the user: The FOKS system. In *Proceedings of the 19th International Conference on Computational Linguistics (COLING 2002)*, pages 85–91, Taipei.
- Fujii, Atsushi, Kentaro Inui, Takenobu Tokunaga, and Hozumi Tanaka. 1998. Selective sampling for example-based word sense disambiguation. *Computational Linguistics*, 24(4):573–597.
- Funakoshi, Kotaro, Takenobu Tokunaga, and Hozumi Tanaka. 2002. Processing Japanese self-correction in speech dialog systems. In *Proceedings of the 19th International Conference on Computational Linguistics (COLING 2002)*, pages 287–293, Taipei.
- Inui, Kentaro, Virach Sornlertlamvanich, Hozumi Tanaka, and Takenobu Tokunaga. 1997. A new formalization of probabilistic GLR parsing. In *Proceedings of the 5th International Workshop on Parsing Technology (IWPT 1997)*, pages 123–134, Boston, MA.
- Itou, Katunobu, Satoru Hayamizu, and Hozumi Tanaka. 1992. Continuous speech recognition by context-dependent phonetic HMM and an efficient algorithm for finding *N*-best sentence hypotheses. In *Proceedings of the 1992 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP-92)*, pages 21–24, San Francisco, CA.
- Iwayama, Makoto, Takenobu Tokunaga, and Hozumi Tanaka. 1990. A method of calculating the measure of saliency in understanding metaphors. In *Proceedings of the Eighth National Conference on Artificial Intelligence (AAAI'90)*, pages 298–303, Boston, MA.
- Mandala, Rila, Takenobu Tokunaga, and Hozumi Tanaka. 2000. Query expansion using heterogeneous thesauri. *Information Processing and Management*, 36(3):361–378.
- Moto-oka, Tohru. 1983. *Fifth Generation Computer Systems*. North-Holland Publishing Company, Amsterdam, Netherlands.
- Shinyama, Yusuke, Takenobu Tokunaga, and Hozumi Tanaka. 2000. “Kairai”—software robots understanding natural language. In *Proceedings of the Third International Workshop on Human–Computer Conversation*, pages 158–163, Bellagio.
- Shirai, Kiyooki, Masahiro Ueki, Taiichi Hashimoto, Takenobu Tokunaga, and Hozumi Tanaka. 2000. Shizen gengo kaiseki no tame no MSLR pāza tsūrukitto [An MSLR toolkit for natural language analysis]. *Journal of Natural Language Processing*, 7(5):93–112. [In Japanese.]
- Suzuki, Taizan, Takenobu Tokunaga, and Hozumi Tanaka. 1999. A case-based approach to the generation of musical expression. In *Proceedings of the 16th International Joint Conference on Artificial Intelligence (IJCAI'99)*, pages 642–648, Stockholm.
- Tanaka, Hozumi. 1981. *Keisanki ni-yoru Shizen Gengo no Imi Shori ni-kansuru Kenkyū* [A Study on Automatic Processing of Natural Language Semantics]. Ph.D. thesis, Tokyo Institute of Technology.
- Tanaka, Hozumi. 1989. *Shizen Gengo Kaiseki no Kiso* [The Fundamentals of Natural Language Analysis]. Sango-Tosho, Tokyo.
- Tanaka, Hozumi, editor. 1999a. *Shizen Gengo Shori — Kiso to Ōyō —* [Natural Language Processing — Foundations and Applications —]. Information Processing Society of Japan, Tokyo.
- Tanaka, Hozumi. 1999b. What should we do next for MT system development? In *Proceedings of the Machine Translation Summit VII*, pages 3–8, Singapore.
- Tanaka, Hozumi, Hitoshi Isahara, and Hideki Yasuhara. 1983. An English–Japanese machine translation system using active dictionary. *New Generation Computing*, 1(2):179–185.
- Tanaka, Hozumi, Hui Li, and Takenobu Tokunaga. 1995. A new technology of GLR parsing and its applications to speech and natural language processing. In *Proceedings of the Symposium on Natural Language Processing (SNLP'95)*, Bangkok.
- Tanaka, Hozumi, Takenobu Tokunaga, and Michio Aizawa. 1993. Integration of morphological and syntactic analysis based on LR parsing algorithm. In *Proceedings of the International Workshop on Parsing Technologies 1993 (IWPT'93)*, pages 101–109, Tilburg, Netherlands, and Durbuy, Belgium.

