

Preface to Computational Humor 2012

Like its predecessors in 1996 (University of Twente, the Netherlands) and 2002 (ITC-irst, Trento, Italy), this Third International Workshop on Computational Humor (IWCH 2012) focusses on the possibility to find algorithms that allow understanding and generation of humor. There is the general aim of modeling humor, and if we can do that, it will provide us with lots of information about our cognitive abilities in general, such as reasoning, remembering, understanding situations, and understanding conversational partners. But it also provides us with information about being creative, making associations, storytelling and language use. Many more subtleties in face-to-face and multiparty interaction can be added, such as using humor to persuade and dominate, to soften or avoid a face threatening act, to ease a tense situation or to establish a friendly or romantic relationship. One issue to consider is: when is a humorous act appropriate?

This 2012 workshop is different from previous workshops [1,2]. The 1st and 2nd workshop on computational humor aimed at providing an opportunity to present scientific results on modelling humor, where modelling needs to be done in order to be able to understand humor and to generate humor in a context of human-computer interaction.

The first workshop [1], organized at the University of Twente in September 1996, was an opportunity to listen to researchers and publicists such as Marvin Minsky, Douglas Hofstadter, and John Allen Paulos. This event, sponsored by many companies and research funding organizations in the Netherlands, consisted of a large public event introducing humor research to the general (academic) public, a student competition on writing vision papers on humor and information and communication technology, and, of course, the workshop itself, with plenary sessions in which research was presented on modelling humor and humor applications, in particular verbal humor. A more focused meeting on detecting and interpreting humorous texts was also part of this 1996 event.

The second workshop [2], organized at ITC-IRST, Trento, Italy, in April 2002, broadened the view to non-verbal humor (e.g., humor expressed by embodied agents), humor and psychology, emotion research, and applications of humor research. Douglas Hofstadter and Anthony Ortony took part in presentations and panel discussions. Applications, including non-verbal humor, e.g., to be used by embodied conversational agents, were emphasized during this workshop. This particular workshop took place in the context of a 'modest' European funded project on computational humor, the so-called HAHAcronym project. The proceedings of this workshop mentioned: "... humour is something we need for our survival. For surviving with computers they will have to demonstrate some humour capability themselves." An influential paper on Computational Humor appeared in IEEE Intelligent Systems in 2006 [3].

As mentioned, this third workshop on computational humor is different from previous ones. Rather than having a large-scale event and having the opportunity to present research results to colleagues and a general audience, we decided to have an event where a small number of (invited) humor researchers could reflect on the state of the art of humor research and develop visions on future computational humor research. Clearly, this workshop and the presentations take into account new developments in information and computing technologies (ICT) that allow detecting and interpreting humor and that allow generation and display of humor.

Hence, in this workshop there is emphasis on an active role of the computer in interpreting and generating humor. But other, supporting approaches are considered as well. These approaches can vary from Cognitive Science to Social Psychology and from Communication Science to Human-Computer Interaction. Although humor researchers have been aware that a multi-disciplinary approach to humor modeling was needed, there has not always been sufficient research interest from other research communities that have been struggling to establish their own domain and research methodology. But, recognizing the importance of humor in human-human interaction and also recognizing that in many situations human-human interaction will be replaced by human-computer interaction has emphasized the need to investigate and model the role of humor in daily life interactions and activities.

In addition, and maybe even more importantly, in the last decade we have also seen the emergence of pervasive computing, ambient intelligence, and the 'Network of Things'. From a humor research point of view advantage can be taken of the possibility that sensor-equipped environments, where the sensors

are intelligent, are connected and are supported by coordinating computer power, to know and learn about the user, his or her history and background, and the contexts a user is referring to when addressing the environment, particular applications, or other users. Reactive behavior in direct contact with a user, and pro-active behavior because of anticipated activities and preferences of a user become possible. Reactive and pro-active humor interpretation and generation then need to be considered. Nonverbal behavior can be detected and needs to be interpreted to serve as input for understanding humorous acts and for generating, in an appropriate way, humorous acts. So, sensor-equipped environments allow us to understand more of the user, including his or her wish to use humor and to choose a particular form of expression of humor. But there is also the question of how the environment provides feedback to (multimodal) humor expressions that it can understand (or not) and when and how the environment decides to display its created humorous act. Although not directly to humor applications, there are many human-computer applications that look at technology provided by Microsoft's Kinect, natural language processing by SIRI, and translation by Google Translate. Far from being perfect, we should understand that such applications can be beneficial for humor research.

Hence, from a 2012 research point of view, there are the following topics of interest when considering computational humor research:

Topics of interest for the workshop include:

- Modeling verbal and nonverbal humor
- Recognizing and generating humor
- Embodied agents, social robots and humor
- Appropriateness of humor generation
- Nonverbal speech, facial expressions, and humor recognition
- Sentiment analysis and humor
- Humor corpora
- Applications of humor research

These topics will be addressed by the invited speakers for this workshop:

- Christian F. Hempelmann, Purdue University, West Lafayette, IN, USA.
- Rada Mihalcea, University of North Texas, Denton, TX, USA.
- Victor Raskin, Purdue University, West Lafayette, IN, USA.
- Willibald Ruch, Department of Psychology, University of Zurich, Switzerland.
- Oliviero Stock, IRST, Fondazione Bruno Kessler, Povo, Trento, Italy.
- Carlo Strapparava, IRST, Fondazione Bruno Kessler, Povo, Trento, Italy.
- Julia Taylor, Purdue University, West Lafayette, IN, US.
- Alessandro Valitutti, Department of Computer Science, University of Helsinki, Finland.



Workshop Venue

The Computational Humor 2012 workshop took place in Amsterdam, the Netherlands on June 8, 2012. The workshop was held in the Trippenhuis, a historical building which is the home of the Royal Academy of Sciences in the Netherlands. It is beautifully located in the old center of Amsterdam.

Acknowledgements

We are grateful to the Human Media Interaction group of the University of Twente for making it possible to organize this workshop. Thanks go also to the CTIT research institute of the University of Twente for making these proceedings possible. This workshop is organized by the University of Twente node as part of its activities of the CaSA (Computers as Social Actors) project of the EIT ICT Labs. We are thankful for the financial support provided by CaSA. A special word of thanks goes to Hendri Hondorp who took on the role of technical editor of these proceedings.

References

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Enschede, June 2012