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Enjoyable conversation system

In this talk, I'll present two topics related in an enjoyable conversation system. The first one is a conversation robot acting as a facilitator who keeps the balance of engagement density in a group conversation. In a group conversation, sometimes only a particular pair of participants talk each other, and the other particular side participants lose the opportunities to join in the conversation. In term of total balance of enjoyment of the conversation, this kind of engagement-density-imbalance should be corrected. The proposed robot can find the participants who feel difficulty in joining in a conversation, and give him a chance to join in without destroying existing conversation. The second one is an automatic opinion generating system. In terms of functionality of conversations, it is enough to reply directly to the question that was explicitly asked. However, in our daily conversations, more informative responses are usually employed in order to hold enjoyable conversations. These responses are usually produced as forms of one's additional opinions, which usually contain their original viewpoints as well as novel means of expression, rather than simple and common responses. In this talk, we show a mechanism generating opinion using WEB review site.

Tetsunori Kobayashi received his B.Eng., M.Eng., and Dr. Eng. degrees in electrical engineering from *Waseda University*, Tokyo Japan, in 1980, 1982, 1985, respectively. In 1985, he joined *Hosei University* as a lecturer. He had been an Associate Professor since 1987. In 1991, he moved to *Waseda University*. Since 1997, he has been a Professor there. He is now a Director of the Perceptual Computing Laboratory at *Waseda University*. He had been a Visiting Researcher at the *Laboratory for Computer Science, Massachusetts Institute of Technology*, at the *Advanced Telecommunication Laboratory*, and at the *NHK Science and Technical Research Laboratory*. He had been a Director of the *Association for Natural Language Processing*, and a chair of the *IPSJ SIG on Spoken Language Processing*. His research interest includes speech recognition and synthesis, image processing, and their application to conversational robots. Recently, he has been especially focusing on the problem of protocol observance in group conversations and facilitation of conversation.

Reference:

[1] Y.Matsuyama, T.Kobayashi, et al.: "Four-participant group conversation: A facilitation robot controlling engagement density as the fourth participant," *Computer Speech & Language*, 33(1), pp.1-24, September 2015. (<http://www.sciencedirect.com/science/article/pii/S0885230814001260>)

[2] Y.Matsuyama, T.Kobayashi, et al.: "Automatic Expressive Opinion Sentence Generation for Enjoyable Conversational Systems", *IEEE/ACM Transactions on Audio, Speech, and Language Processing*, 23(2), pp.313-326, Feb. 2015. (<http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=6924789>)