Multimodal Signal Processing for Communicative Robots

Presenter: Taewoon Kim

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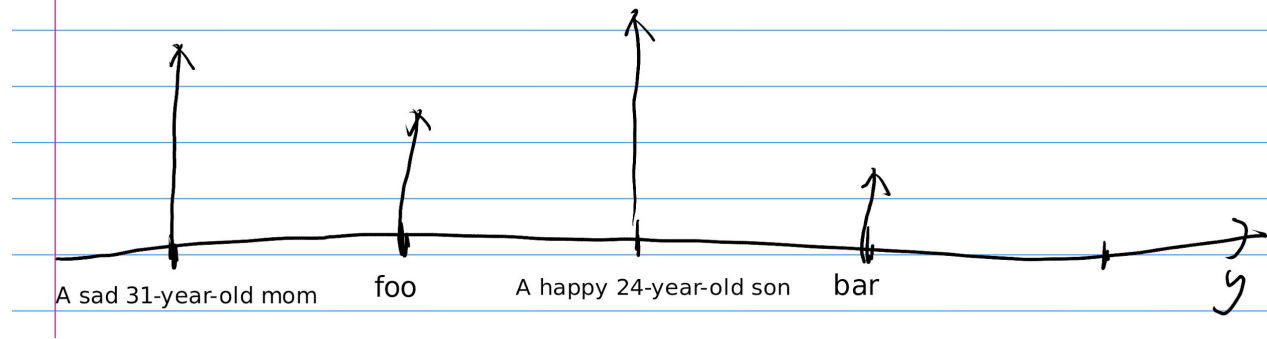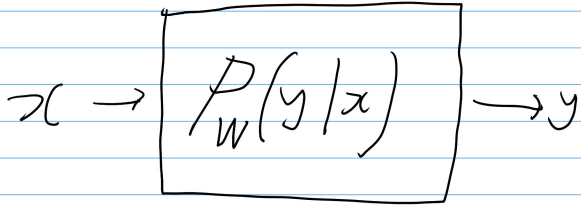4. Github leolani organization
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1. Who am I?

Taewoon Kim (PhD at CLTL and HI)

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Research interests: Communicative Robots, Language Grounding, End-to-End Deep Learning

2. End-to-end deep learning is great and all...

$$x \rightarrow \boxed{P_W(y|x)} \rightarrow y$$

A sad 31-year-old mom   foo   A happy 24-year-old son   bar   y

DNN as a conditional categorical distribution function (pmf).
x is a vector and y is a scalar. W is the trainable weight matrix.

3. Project proposal

https://github.com/cltl/ma-communicative-robots/blob/master/proposal_tk.md

4. Github leolani organization

Link: https://github.com/leolani

The repos that are most relevant to us are:

- **cltl-sentimentrecognition**, **cltl-emotionrecognition**
- **cltl-facedetection**
- **cltl-genderdetection**, **cltl-agedetection**

Anyone interested in trying face detection and age/gender estimation can try on my google colab:
https://github.com/tae898/DeepLearning/blob/master/Chapter01_Introduction.ipynb

5. QnA

We'll be having a QnA time after Jaap's and Lea's presentations.