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Sentiment Analysis

Hui Fang
Department of Electrical and Computer Engineering
University of Delaware

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Human as Sensors

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Definition of Opinions

In contrast: Objective statement or factual statement (can be proved right/wrong)

Opinion \approx a **subjective** statement describing what a **person** believes or thinks about **something**

Depends on culture, background, and context

Opinion target

Opinion holder

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A Sentence in the News (Implicit Holder and Target)

Target Holder

"... In an effort to get residents to wake up and pay attention to Hurricane Sandy, the governor of Connecticut just said that Sandy might be as bad as the worst hurricane ever to hit New England—the hurricane of 1938..."

Target Negative Context

Harder to mine and analyze: Need deeper NLP

Figure 18.3 A sentence from news with sentiment. (Courtesy of © 2012 Henry Blodgett / Business Insider)

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Task of Opinion Mining

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Sentiment Classification

- A classification method
- Need Improvements
 - New features
 - New learning methods (ordinal regression)

Features

- Character n-gram
- Word n-gram
- N-gram of POS
- Word classes
- frequent pattern syntax