The Language of Emoji, Sentiment Analysis and Machine Learning

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“Emoji are the Fastest Growing Language in History”

- The Telegraph, 2015
of the population use emoji to express themselves.

mobile messages that incorporate emoji were sent in 2016

Source: Emogi - Emoji Report, 2016
Consumers Want More Emoji - Including from Brands

75% of users want alternative emoji options

59% of users would choose branded emoji over standard emoji

Source: Emogi - Emoji Report, 2016
Opportunity

- Demand for More Content
- Zero App Download Environment
- Development and Marketing Investments

Sentiment Analysis

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Machine Learning
101

Unsupervised Learning
- Clustering
- Anomaly Detection

Supervised Learning
- Classification
- Regression
Supervised Learning

Data → Annotation → Machine Learning → Model

- Labor intensive
- Prone to human error
- Costly
Distant Supervision Learning

“I think I have an obsession for dominos hot wings 😞”

“Starbucks to fix my mood please 😞”

“My favorite panera breakfast 😊”

Automation
Cost effective
Potentially noisy

Data → Annotation → Machine Learning → Model

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Sentiment Analysis Research and Emoji

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Wheel of Emoji

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Sentiment Analysis @ Emogi

“Starbucks to fix my mood please 😊”

“having a pizza date by myself in Walmart parking lot 😋”

“My favorite panera breakfast 😝

“I think I have an obsession for dominos hot wings 😭”

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Advantages

- Wide topics
- Short text
- High emoji use
- Data volume

Challenges

- Contexts (social vs personal)
- Idiosyncrasy (#hashtag / @atmark)
- Idiomatic and phrasal emoji
- Data Privacy
- Skewed distribution
This rain sucks!!!

Wanna hang tonight?

Sure 😊. Do you want to watch the

I know, totally forgot an umbrella.

Yass!!!
Visual contents
Sentiment Analysis for content suggestions
Distant Supervision Sentiment Analysis with Emoji

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Thank You!