

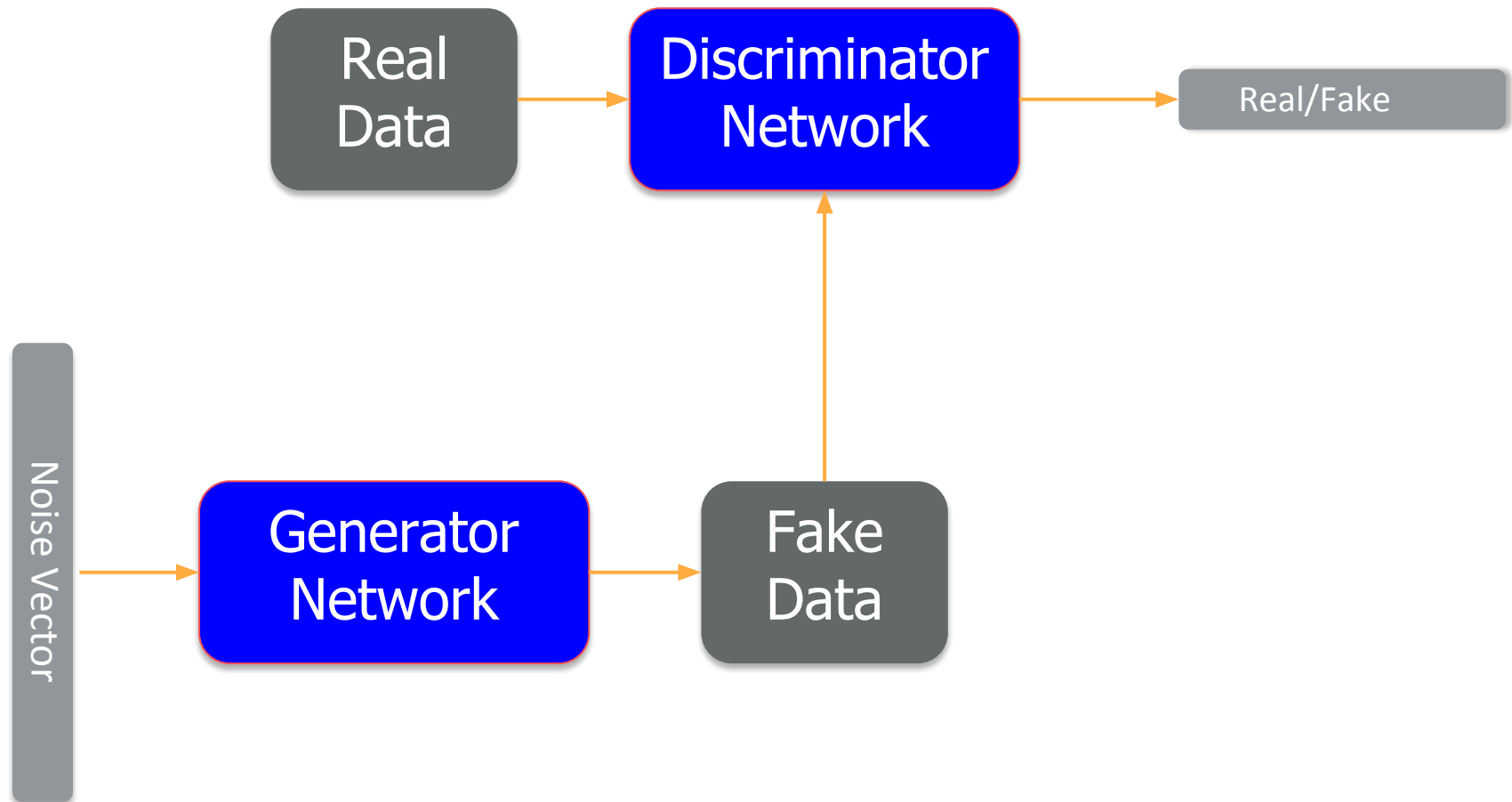
SentiGAN: Generating Sentimental Texts via Mixture Adversarial Networks

Ke Wang Xiaojun Wan
Peking University

IJCAI 2018

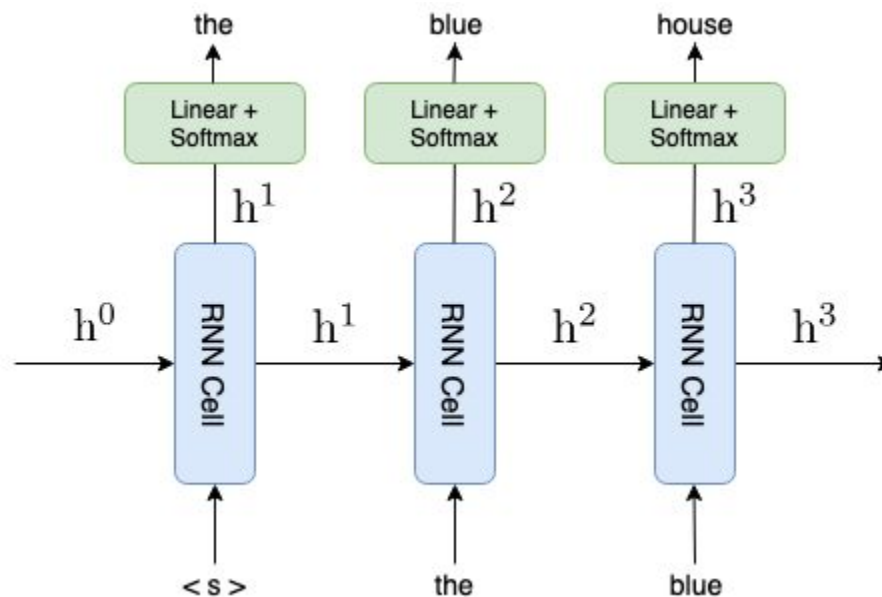
Presenter: Anchit Bhattacharya
Arizona State University

Generative Adversarial Networks



Use GAN for Text Generation

- **Generator:** LSTM or GRU based text generation



- **Discriminator:** a simple CNN-based classifier or multi-layer perceptron

GAN's for Text Generation (Cont'd)

Some problems of using GAN's with text:-

Discrete Nature of Texts

Poor Quality of Text

Mode collapse

Lack of Diversity

Controlled Generation of Text

Text controlled by
sentiments

SentiGAN

Solutions to the problems:-

Discrete Nature of Texts

Mode collapse

Penalty based cost function

SentiGAN(Contd)

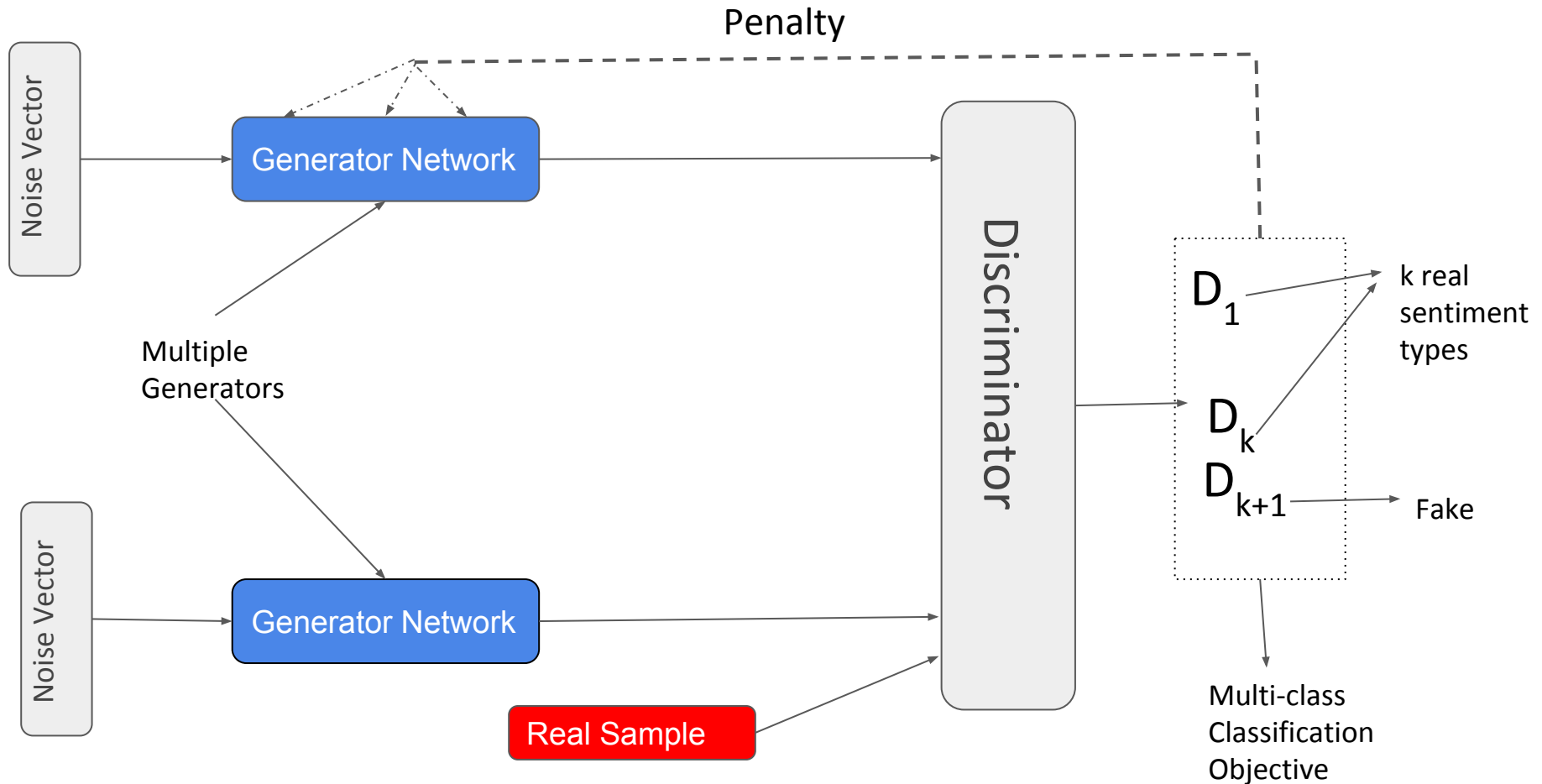
Solutions continued:-

Text Controlled By
Sentiments

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graph LR; A[Text Controlled By Sentiments] --> B[Multiple Generators]; A --> C[Discriminator with k+1 classes]; A --> D[k classes for sentiments];
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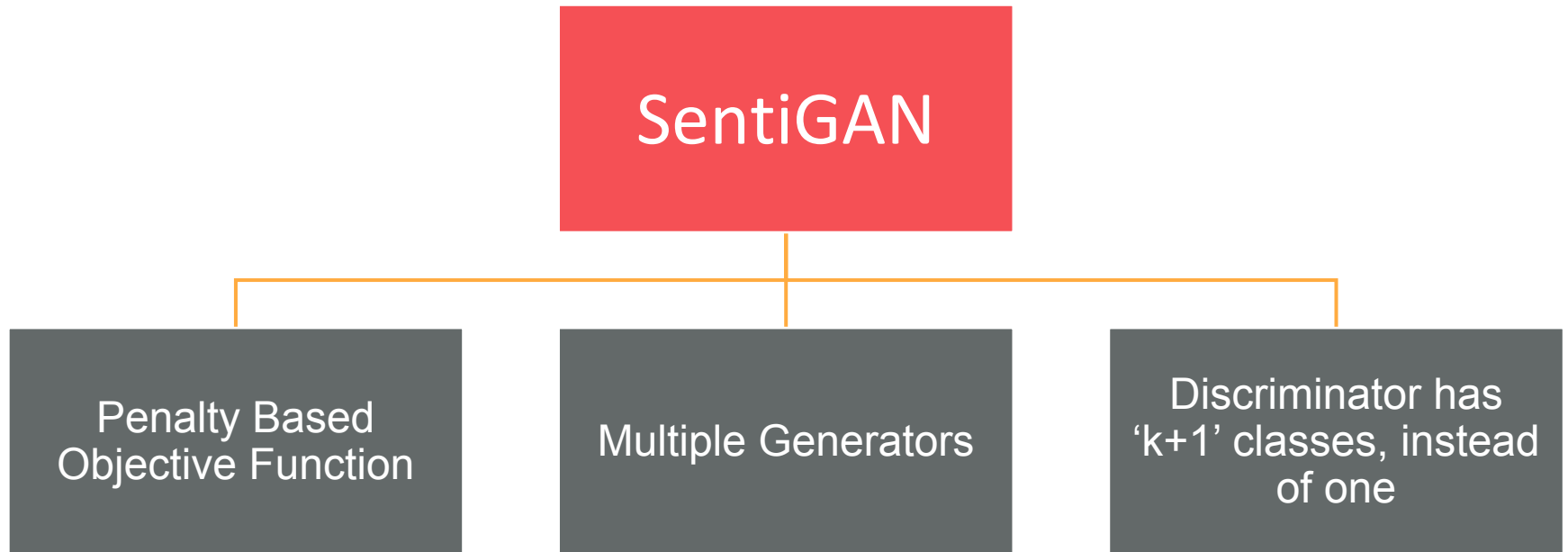
- Multiple Generators
- One generator for each sentiment
- Discriminator with $k+1$ classes
- k classes for sentiments

SentiGAN(Contd)



Conclusion

- Contributions:



Questions