Lecture on "Network-based fake news detection: behavioral relationship analysis"

At 6pm to 7:30pm on March 4, 2021, the lecture of "Network-based fake news detection: behavioral relationship analysis" of School of Silicon Valley Artisan of USJ broadcasted live online globally. The media we visit daily (such as social media feeds, news blogs, and online newspapers) are flooded with misleading information, and how to identify trusted news sources is facing serious challenges. The network-based clues revealed when analyzing news dissemination on social networks are information that has rarely been fully explored or used for fake news detection. The following are the key points summarized by Ranyang, the instructor of this lecture, all are dry goods!
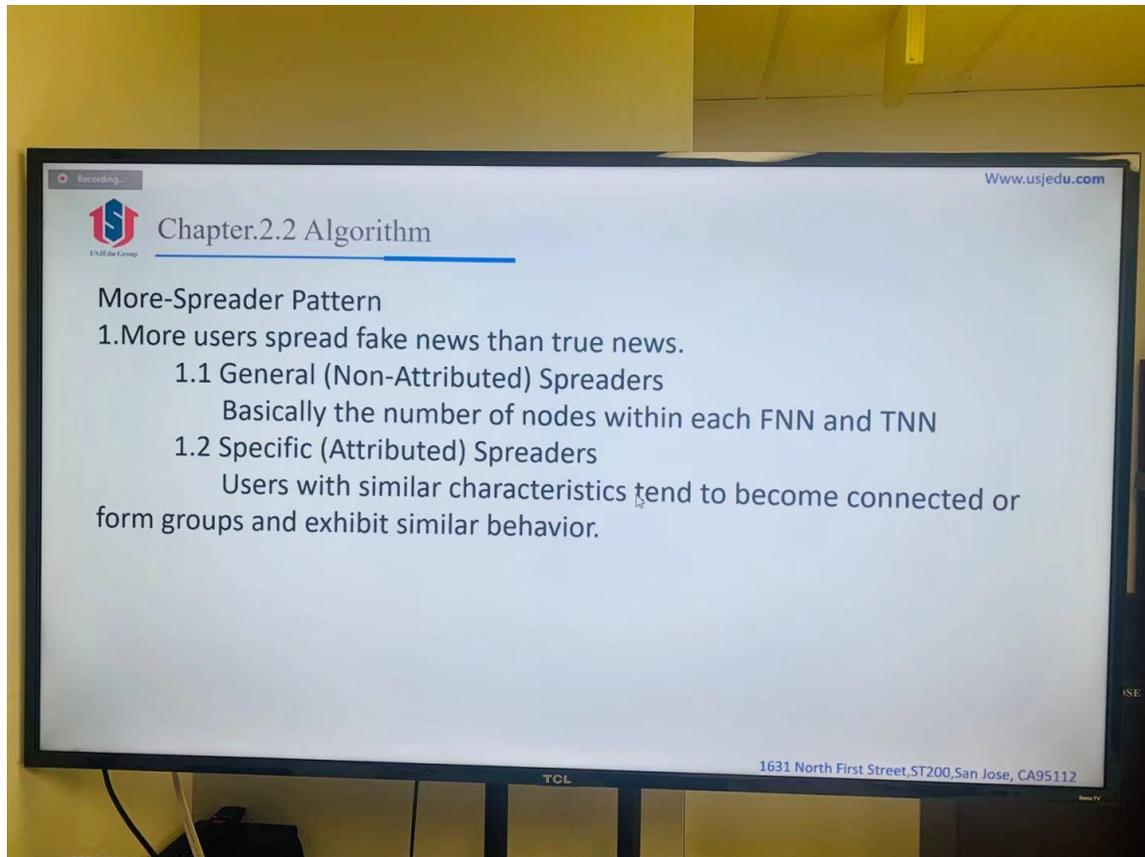
I. The review of lecture of "Network-based fake news detection: behavioral relationship analysis"

① The challenges facing today are:

1. When using a fake news detection system based on think tanks, only news with wrong content can be detected, but fake news cannot be detected.

2. When using a style-based fake news detection system, the system assumes that fake news exhibits a distinguishable writing style. But on the contrary, malicious fraud can conceal writing style to bypass these language models.

② The following introduces the analysis of behavioral companion modes in several social networks:

1. Network layer split
   a. Propose a network-based mode-driven method that can detect fake news in an interpretable way.
   b. Investigated and summarized the fake news patterns in social networks, involving the relationship between the news being spread, the news disseminators, and the news disseminators.
   c. The fake news model is expressed and quantified at multiple network levels (ie node, self, triad, community, and entire network level).

2. Content-based fake news detection
   Triples: subject, predicate, object
   The knowledge-based method aims to evaluate the authenticity of news by comparing the knowledge extracted from the news content to be verified with real knowledge.
   Style: A set of custom functions that can well reflect the style of news writing.
   Style functions can be those that capture the content structure of various language levels.

3. Fake news patterns and representation on the Internet
   a. News dissemination
   b. News communicator
   c. The relationship between news communicators

II. Lecture Content

1. Hidden information mining at the network level
2. How to classify features
3. Which parts of the information transmission are closely related?
4. How to classify at different levels
5. Application scenarios and directions of fake news prediction

III．Lecturer

School of Silicon Valley Artisan of USJ Instructor: Ranyang

(George Washington University in D.C., MS degree in Computer Engineering

Familiar with python, working experience in Foxconn big data analysis group)

IV. Organizer

USJ SVA

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