NMS 220 – Media Computation

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Media computation

- The applied and theoretical **computational (programming) concepts** involved **in New Media technologies**, including those involved in storing, analyzing, visualizing, and manipulating digital media.

INTERDISCIPLINARY EXPLORATIONS
CATEGORY II: DIGITAL APPLICATIONS
CSC 210 (Computer Science and Programming I)

MEDIA COMPUTATION (18 CREDITS)

REQUIRED

CSC 231   Computer Science and Programming II (Stage II Writing)

SELECT 12 CREDITS

CSC 230   Discrete Mathematics for Computer Science
CSC 270   Data Structures
CSC 305   Data Mining and Applications
CSC 311   Computer & Video Games Development
CSC 335   Design and Analysis of Computer Algorithms
CSC 341   Database and Information Management

REQUIRED TIER III CAPSTONE COURSE

CSC 450   Senior Research

Current jobs using "media computation"

- Web developer

- Mobile app developer

- Multimedia programmer

- Social media strategist

- Digital marketing analyst

Image source: http://www.appschopper.com/

A **scheduled bot** posts messages based on the time. The **Big Ben bot** tweets every hour.

```
SAMPLE CODE

when(time_of_day == 1)
    tweet("BONG")
```

Amplification bots, like those sold by Devumi, follow, retweet and like tweets sent by clients who have bought their services.

```
SAMPLE CODE

when(client_tweet)
    retweet(client_tweet)
```

Watcher bots monitor other Twitter accounts or websites and tweet when something changes. When the United States Geological Survey posts about earthquakes in the San Francisco Bay Area, the **SF QuakeBot** tweets the relevant information.

```
SAMPLE CODE

when(earthquake)
    tweet(quake_summary)
```

https://twitter.com/big_ben_clock

https://twitter.com/earthquakesSF

https://www.nytimes.com/interactive/2018/01/27/technology/social-media-bots.html

Cutting-edge work in "media computation"

- Hoaxy – visualizing the spread of information and fact checking across social media
  - http://hoaxy.iuni.iu.edu/
- Wall of Now – a multi-dimensional media browser organizing media by entity (person, country, etc)
  - https://www.media.mit.edu/projects/wall-of-now/overview/

Cutting-edge work in "media computation"

- Captions++ -- time-positioned embedded comments in videos
  - https://www.media.mit.edu/projects/captions/overview/
- Street Change – highlights changes over time
  - http://streetchange.media.mit.edu/
- Audio manipulation, facial enhancement, facial re-enactment
  - http://futureoffakenews.com/

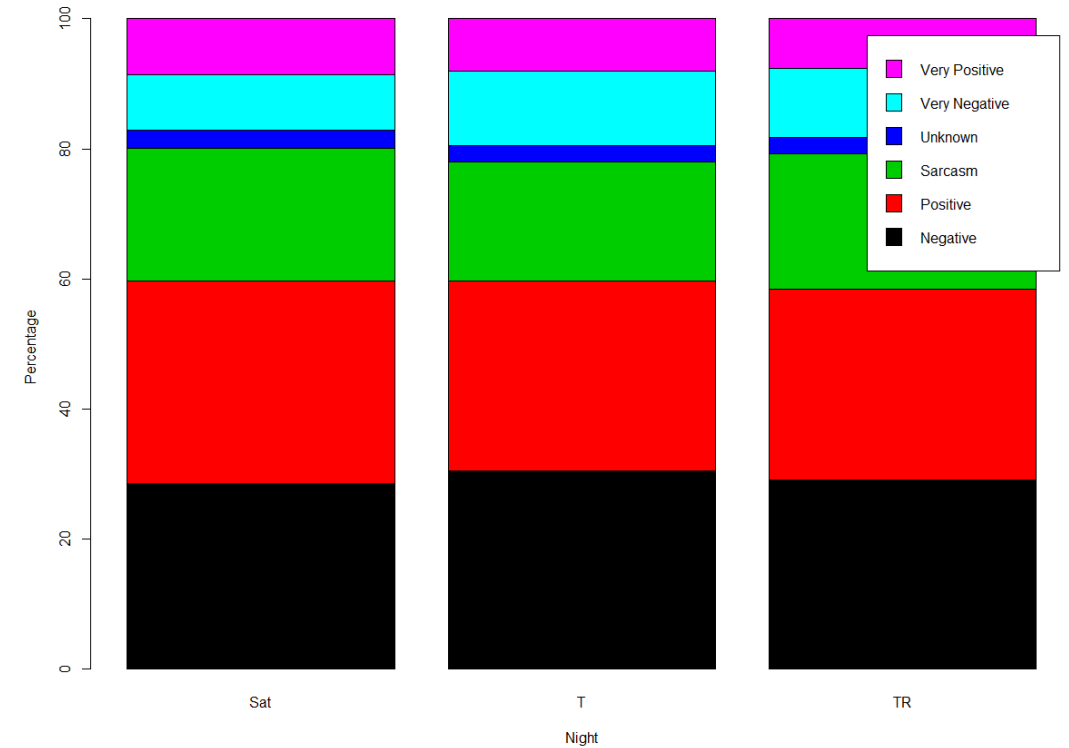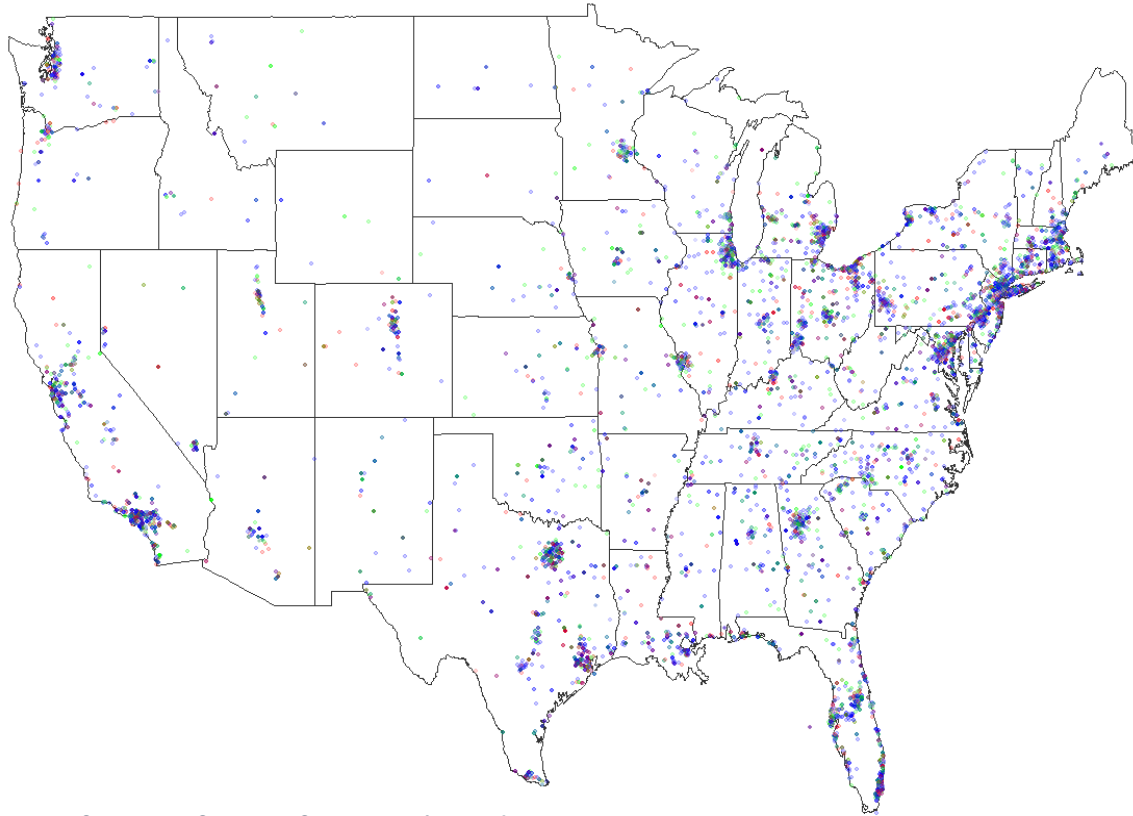# Does twitter "mood" vary with day of the week? (Eastern student Senior Project)

Figure 1: A figure of Data from a Thursday Morning.

Blue = Neutral, Red = Negative, Green = Positive

What programming languages are in most demand by employers? (Eastern student project)