e content

# Role of Computers and new media technology in Research

Prof. Mukul Srivastava

Head
Department of Journalism & Mass Communication
University of Lucknow,
Lucknow (India)

sri.mukul@gmail.com
https://www.youtube.com/channel/UCdkxo7fhISE8kzyKolTL8IQ
http://mukulmedia.blogspot.com/
www.mukulmedia.com
http://www.lkouniv.ac.in/

# Role of Computers and new media technology in Research

sri.mukul@gmail.com, http://mukulmedia.blogspot.com/

Dr Mukul Srivastava
Associate Professor & Head
Dept. Of Journalism & Mass Communication
University of Lucknow
Sri.mukul@gmail.com
www.mukulmedia.blogspot.com

# Importance of Data and Internet

- Research data is any information that has been collected, observed, generated or created to validate original research findings.

- Although usually digital, research data also includes non-digital formats such as laboratory notebooks and diaries.

# # what does it mean

sri.mukul@gmail.com, http://mukulmedia.blogspot.com
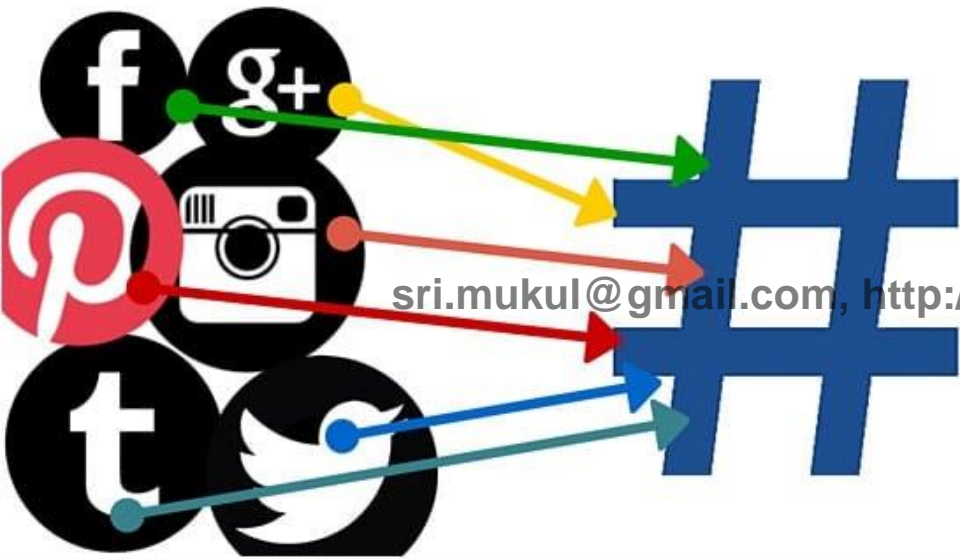
- A hashtag is a label used on social media sites that makes it easier to find posts or information with a theme or contains specific content. It is created by including the symbol "#" in front of a word or words without spaces.

# Reasons to Use Hashtags:

- Hashtags simplify the process–Searching a hashtag pulls results for each post using that hashtag. Using a hashtag helps you reach your target audience, and likewise makes it easier for others to find your information.

- They compel an action–When a user sees a post that is of interest, they will likely spend time looking through content brought up by the hashtag.

- Hashtags evolve–Hashtags are being used by more and more platforms, impacting the amount of information put directly in front of social media users.

- They reward the distinctive–Hashtags make finding information easier for social media users. A unique hashtag makes your message stand out to the users who find the hashtag valuable.
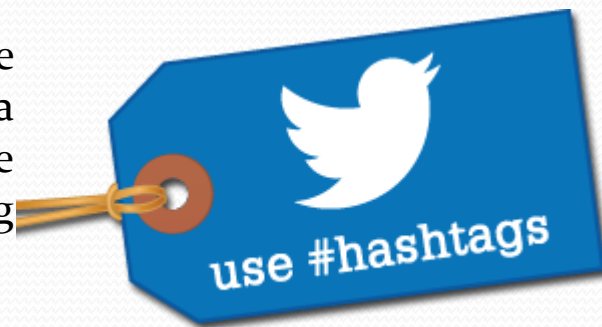
# Data mining?



- So why is data mining important? You've seen the staggering numbers – the volume of data produced is doubling every two years. Unstructured data alone makes up 90 percent of the digital universe. But more information does not necessarily mean more knowledge.

- Data mining allows you to:

- Sift through all the chaotic and repetitive noise in your data.

- Understand what is relevant and then make good use of that information to assess likely outcomes.

- Accelerate the pace of making informed decisions.

# Metadata

- Metadata is simply **data about data**. It means it is a description and context of the data. It helps to organize, find and understand data. Here are a few real world examples of metadata:
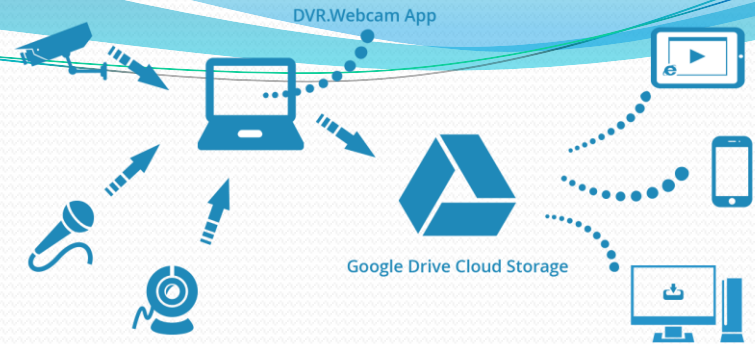
# Data visualization

- **Data visualization** is the graphical representation of information and **data**. By using visual elements like charts, graphs, and maps, **data visualization** tools provide an accessible way to see and understand trends, outliers, and patterns in **data**.
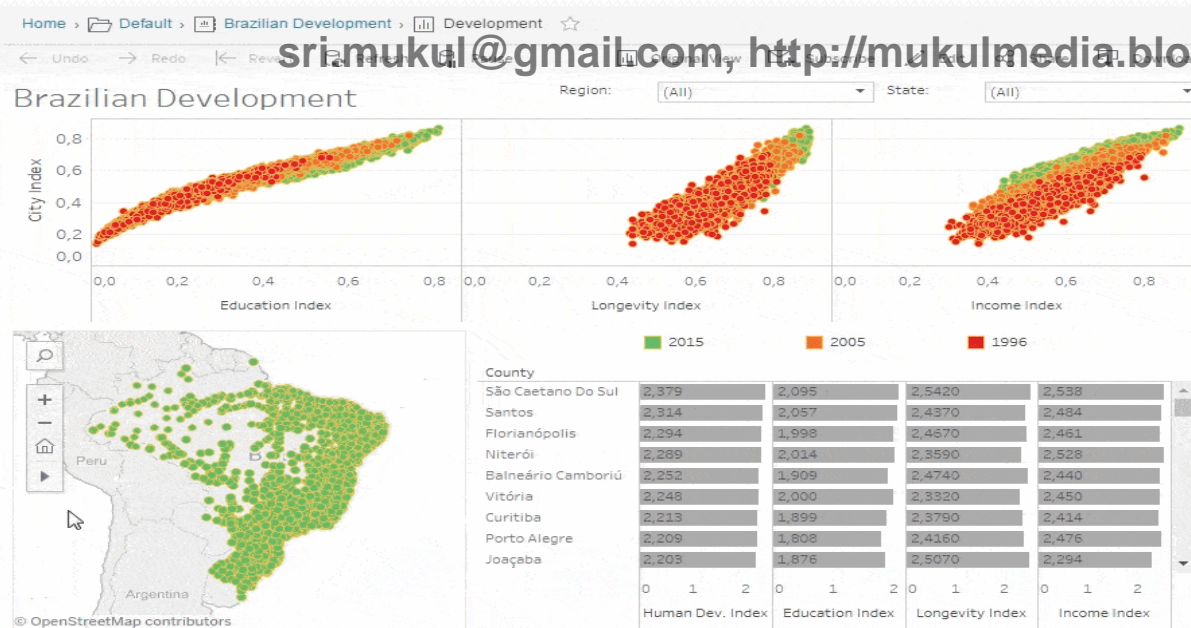
# Google Drive



- In the past, working on an academic research project required searching through multiple print and electronic resources, organizing the relevant content and keeping track of the source, then aggregating the information into one unified, final document. Group research projects, where the complexity magnified by the number of contributors, content, writing styles and opinions, required the diligent coordination of an air traffic controller to ensure a high-quality finished product.

- But the academic research process experienced a drastic change in April 2012 with the release of **Google Drive**. With Google Drive, researchers leveraged one central location for file storage, retrieval and collaboration. The launch of Google Drive changed the research landscape; however, it still lacked capability to help researchers collect content quickly, accurately and efficiently.

# How it works



sri.mukul@gmail.com, http://mukulmedia.blogspot.com/

# Some of the websites where you can get Data

- Minstry of stats india - http://mospi.nic.in/data US central data portal - https://www.data.gov/
- RBI's data warehouse - https://dbie.rbi.org.in/DBIE/dbie.rbi?site=home
- Historical weather data downlaodable- https://www.meteoblue.com/en/weather/archive/export/india_el-salvador_3585481
- import export data -https://www.icegate.gov.in/jsp/DailyReport.jsp
- WII herbarium data - https://www.gbif.org/dataset/9e7ea106-0bf8-4087-bb61-dfe4f29e0f17
- uk gov open data portal - https://data.gov.uk/
- world bank open data - https://data.worldbank.org/
- who data portal -https://www.who.int/gho/database/en/
- google public data explorer - https://www.google.com/publicdata/directory
- aws open data registry - https://registry.opendata.aws/
- eu open data portal - http://data.europa.eu/euodp/en/data/
- us census portal - https://www.census.gov/data.html
- unicef data portal - https://data.unicef.org/
- data portal india - https://data.gov.in/
- prs - https://www.prsindia.org/
- world trade stat - https://wits.worldbank.org/countrystats.aspx
- tiger mortality in India - https://www.tigernet.nic.in/msStats.html
- most of these allow downloads in xls, csv, json and other data friendly formats. however, if scraping is needed either of the tools
- https://www.webscraper.io/

# Blog A major tool



sri.mukul@gmail.com, http://mukulmedia.blogspot.com/

# Blogs as a data source



- **Benefits Convenience and Ease of access to codified data**

- One of the major problems associated with collection of qualitative data is the synchronous, time-consuming method of collection. Typically, qualitative data are collected via interviews, observation, or focus groups. These methods demand the mutual availability of both the subject(s) and the interviewer. In addition, the interviewer has to maintain a high level of focus and sensitivity throughout the collection in order to record the various cues presented during data collection. This poses additional constraints on the act of qualitative data collection. Apart from data collection, data also needs to be codified for analytical purposes, which in turn requires more time and resources. Blogs, which are readily available in a print format, offer an immediate availability of rich, codified data in an efficient package pre-prepared for analysis. Blogs do not require synchronization between the researcher and the subject, and so are more convenient and less time and resource demanding. Another source of convenience can come from the content of the blog which is often categorised by the blogger according to their assignment of topic, mood, or motivation. This enables faster and easier access to information of greatest value.

# Blogs as a data source
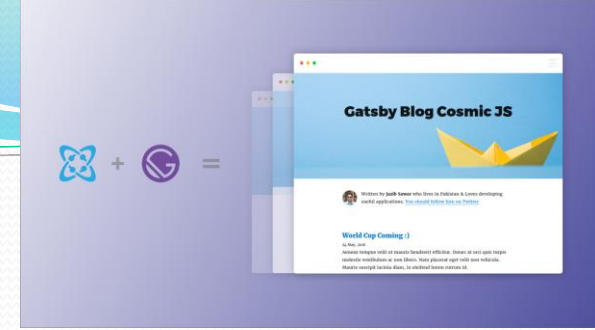
- **Richness and depth of information available**
- Blogs provide rich and deep personal accounts. The richness of this data is derived from the longitudinal nature of a blog, as well as the connectivity between issues discussed in the blog and links the blogger may provide relating to the issue. The depth is a result of the freedom in writer's topic selection. Since bloggers choose their own topics, it is natural their choices reflect their areas of interest. Their writing of these issues is opinionated and often unbiased, as they are free to express their own views, expecting no tangible consequences. In addition, as the need for introspection is one of the motivator to blog, personal accounts in blogs are typically candid and genuine, providing valuable insight into the issues present on individuals' minds.

# Blogs as a data source

- **Unbiased by research process**

- Blog data is by nature primary data which is not subject to the influence or interference of the researcher. It is therefore not fallible to many of the weaknesses and biases of many other forms of data collection, whether faceto-face or remotely collected. Typical of these influences is that of the Hawthorne Effect (Hartley 2001). The Hawthorne Effect in particular causes respondents to provide or accentuate data they think will please the interviewer. Blog contents, however, are unaffected by the researcher, assuming that the blogger is not aware of the research when writing.

# Blogs as a data source



- **Sample constraints - Variety of subjects**

- The data sample available through blogs may be biased, particularly due to the medium type which is a pre-requisite for bloggers. A blogger needs to have an attraction to writing in general, and to writing over a computerized medium in particular. It is expected that 'techno-phobes' will not be represented in the blogging population, in addition there will be an uneven representation in older age groups and in less developed economies. However, as discussed above, blogging is proliferating at unprecedented rates in the population. It is also expected that with the growth of technologicallynative population, blogs will become as common and ubiquitous as the mobile phone. This abundance of personal data and its efficient availability means that there is a virtual font of data available to researchers on a wide and growing variety of subject areas. Research on the different types of bloggers is still developing, however an increasing section of the worlds' population are taking to this activity. Further research to draw on the various types of bloggers is required to better understand the demographics available in this medium.

# Problems



- Impurity of data
- Reliability and validity of data – biases
- Reliability and validity – deception

# Blogs Can be used .....

- Content analysis
- Discourse analysis
- Trend analysis
- Longitudinal studies
- Participant observation



## Blog in Education

- Teacher Use:
  - Teacher webpage
  - Instructional tips
  - Classroom news for parents
  - Homework
- Student Use:
  - Reflective or writing journals
  - Reports
  - Interactivity with other students

sri.mukul@gmail.com, http://mukulmedia.blogspot.com/

## Who uses blogs?

- Students
- Teachers
- Researchers
- Project teams
- Admin departments
- Who doesn't?!