
Postgraduate Certificate in Data-Driven Science Journalism

Data Journalism Reporting

Data journalism reporting involves the use of data to uncover, explain, and tell stories. It is a form of journalism that relies on data analysis and visualization to supplement and enhance traditional reporting methods. Data journalism allows journalists to explore complex issues, identify trends, and provide deeper insights into various topics.

Key Terms and Vocabulary:

1. **Data Journalism:** Data journalism is a form of journalism that involves the use of data to tell stories, uncover trends, and provide insights. It combines traditional reporting skills with data analysis and visualization techniques to create compelling narratives.
2. **Data Analysis:** Data analysis is the process of inspecting, cleaning, transforming, and modeling data to uncover useful information, inform conclusions, and support decision-making. It involves applying statistical and mathematical techniques to data sets.
3. **Data Visualization:** Data visualization is the graphical representation of data and information. It helps to communicate complex data in a clear and concise manner, making it easier for audiences to understand and interpret.
4. **Data Cleaning:** Data cleaning is the process of detecting and correcting errors and inconsistencies in data sets. It involves removing duplicate entries, fixing missing values, and standardizing data formats to ensure accuracy and reliability.
5. **Data Mining:** Data mining is the process of discovering patterns, trends, and insights in large data sets. It involves applying machine learning and statistical techniques to extract valuable information from raw data.
6. **Big Data:** Big data refers to large and complex data sets that are difficult to manage and analyze using traditional data processing techniques. It encompasses structured and unstructured data from various sources.
7. **Data Sources:** Data sources are the origins of data used in data journalism reporting. They can include government databases, public records, surveys, social media, sensor data, and more. Accessing reliable and accurate data sources is crucial for producing high-quality data journalism content.
8. **Data Scraping:** Data scraping is the process of extracting data from websites and online sources using automated tools or scripts. It allows journalists to gather large amounts of data quickly and efficiently for analysis and reporting.

9. **Data Storytelling:** Data storytelling is the practice of using data to craft compelling narratives that engage and inform audiences. It involves combining data analysis, visualization, and traditional storytelling techniques to communicate complex information effectively.
10. **Data Ethics:** Data ethics refers to the moral principles and guidelines that govern the collection, use, and sharing of data. It is essential for data journalists to adhere to ethical standards to protect privacy, avoid bias, and maintain trust with their audiences.
11. **Open Data:** Open data refers to data that is freely available for anyone to access, use, and share. It promotes transparency, accountability, and collaboration in journalism and other fields. Open data sources can be valuable resources for data journalism reporting.
12. **Data Security:** Data security involves protecting data from unauthorized access, use, disclosure, disruption, modification, or destruction. Journalists must take precautions to safeguard sensitive data and maintain the confidentiality of their sources.
13. **Data Literacy:** Data literacy is the ability to read, interpret, and communicate data effectively. It includes understanding basic statistical concepts, data visualization techniques, and data analysis methods. Developing data literacy skills is essential for journalists to work with data confidently.
14. **Data-driven Reporting:** Data-driven reporting is a journalistic approach that prioritizes data analysis and evidence-based storytelling. It involves using data to support and enrich journalistic investigations, stories, and reports.
15. **Machine Learning:** Machine learning is a subset of artificial intelligence that enables computers to learn from data and improve performance on specific tasks without being explicitly programmed. It is used in data journalism to analyze patterns, predict trends, and automate processes.
16. **Data Visualization Tools:** Data visualization tools are software applications that help journalists create interactive and visually appealing charts, graphs, maps, and other visualizations. Popular tools include Tableau, Google Data Studio, Infogram, and D3.js.
17. **Data Journalism Workflow:** The data journalism workflow refers to the step-by-step process of collecting, cleaning, analyzing, visualizing, and reporting data-driven stories. It typically involves data sourcing, data cleaning, data analysis, data visualization, and story publication.
18. **Data-driven Investigations:** Data-driven investigations are in-depth journalistic inquiries that rely on data analysis to uncover hidden truths, expose corruption, and hold powerful institutions accountable. Investigative journalists use data to support their findings and build compelling narratives.
19. **Data Story Examples:** Examples of data stories include visualizations of election results, interactive maps showing COVID-19 cases, charts comparing income inequality, and data-driven investigations into corporate fraud. These stories use data to inform, educate, and engage audiences.

20. Challenges in Data Journalism: Challenges in data journalism include data quality issues, data privacy concerns, technical barriers, limited resources, and ethical dilemmas. Journalists must navigate these challenges to produce accurate, fair, and impactful data journalism content.

In conclusion, data journalism reporting is a powerful tool for journalists to uncover, analyze, and present data-driven stories. By mastering key terms and vocabulary related to data journalism, journalists can enhance their storytelling skills, engage audiences, and contribute to a more informed society.