

**Syllabus of the Four-Year Undergraduate Programme in Mass Communication
FYUGP (With Research)**

Semester	8
Paper	Major 20
Paper Description	Digital Methods for Communication Research
Paper Code	
Paper Type	Theory
Credit	4
Class Hours	60
Distribution of Marks	80 (60 + 20)
Duration of the Examination	2.5 hours

Brief Course Description:

This paper has been designed to help students understand and apply the growing range of research methods specific to the digital media environment. Traditional research training in communication largely covers surveys, content analysis, and interviews developed for print and broadcast media contexts. The explosion of digital platforms, social media data, and online communities has created an entirely new methodological landscape — one that requires researchers to work with APIs, large datasets, digital traces, online ethnographies, automated text analysis, and computational tools.

Prerequisite(s) and/or Note(s):

- (1) Higher Secondary or equivalent certification from any recognized board.
- (2) Note(s): The syllabus changes yearly or in due course and may be modified during the term itself, depending on the circumstances. However, students will be evaluated only on the basis of topics covered in the course.

Course Objectives:

Knowledge acquired:

- (1) Understand the epistemological shifts that digital media bring to communication research, including debates around big data, computational methods, and the limits of platform data

Skills gained:

- (1) Identify appropriate digital methods for different research questions in media and communication studies

- (2) Collect, process, and analyse digital data from social media, websites, and online communities using accessible tools and platforms
- (3) Apply qualitative digital methods including netnography, online interviews, and digital ethnography to study online cultures and communities
- (4) Apply quantitative and computational methods including digital surveys, automated content analysis, text mining, and social network analysis to communication research problems

Competency Developed:

- (1) Critically evaluate research ethics in digital environments — including consent, privacy, platform terms of service, anonymity, and the Digital Personal Data Protection Act 2023
- (2) Design and write a small-scale digital research project appropriate for thesis or journal publication

Course Syllabus

Unit I: Digital Research Landscape and Epistemology

- (1) Communication Research in the Digital Age — The digital turn in social and communication research; datafication of social life; characteristics of digital data (big, always-on, non-reactive, incomplete); found vs. made data; digital traces as research objects; opportunities and challenges of working with platform data in the Indian context.
- (2) Epistemological Foundations — Positivist, interpretivist, and critical paradigms in digital research; quantitative, qualitative, and mixed methods approaches in digital contexts; computational social science as an emerging interdisciplinary framework; decolonial critiques of digital methods — whose data, whose questions, whose platforms.
- (3) Research Design for Digital Studies — Formulating research questions for digital communication phenomena; aligning research questions with appropriate digital methods; research design considerations: unit of analysis, sampling in digital spaces, temporal dimensions; overview of the digital research workflow — from question to publication.
- (4) Navigating Digital Research Ethics — Ethical frameworks for internet research (AoIR guidelines); public vs. private data in online spaces; informed consent in digital research; platform terms of service and researcher access; anonymisation and pseudonymisation; the Digital Personal Data Protection (DPDP) Act 2023 and implications for Indian researchers; academic integrity in computational research.

Unit II: Qualitative Digital Methods

- (1) Online Qualitative Research: An Overview — Transposing qualitative methods to digital contexts; online interviews — synchronous (video calls, chat) and asynchronous (email, forum); virtual focus group discussions; WhatsApp-based qualitative research in India; ensuring rigour and trustworthiness in online qualitative data.
- (2) Netnography — Netnography as an adaptation of ethnographic methods for digital

environments; conceptual foundations (Kozinets); the six movements of netnography — Initiation, Investigation, Immersion, Interaction, Integration, and Incarnation; community-based and consociality-based approaches; the immersion journal as a reflexive tool; distinguishing netnography from social media monitoring and digital content analysis.

- (3) Digital Ethnography and Online Observation — Participant observation in online communities, forums, and social media groups; lurking vs. active participation; field notes in digital environments; multimodal data collection (text, image, video, audio); studying WhatsApp groups, Telegram channels, Facebook communities, and regional language online spaces in India.
- (4) Digital Oral History and Archival Methods — Digital archives as research sites; oral history using video-conferencing tools; oral history in the digital era — recording, transcribing, and preserving; studying media histories through digital archives; web archiving and the Wayback Machine as research tools.

Unit III: Quantitative and Computational Digital Methods

- (1) Digital Surveys and Online Experiments — Online survey design: advantages, sampling challenges, platform options (Google Forms, SurveyMonkey, Qualtrics); panel surveys and Amazon Mechanical Turk / Prolific in media research contexts; survey bots and response quality; online experiments and A/B testing in communication research; randomised controlled trials in digital field experiments.
- (2) Digital Content Analysis and Automated Text Analysis — Extending traditional content analysis to digital texts; unit of analysis in social media research; constructing codebooks for digital content; computer-assisted content analysis (MAXQDA, ATLAS.ti); introduction to automated content analysis; sentiment analysis — dictionary-based and machine learning approaches; topic modelling (Latent Dirichlet Allocation); word frequency and co-occurrence analysis; tools: LIWC, Voyant Tools, Python libraries (NLTK, spaCy) at an introductory level.
- (3) Social Network Analysis (SNA) in Communication Research — Concepts of social network analysis — nodes, edges, centrality, clustering, density; communication networks on Twitter/X, Facebook, and WhatsApp; network visualisation tools (Gephi, NodeXL); applications of SNA in studying political communication, information diffusion, and influencer networks; case studies from Indian Twitter/X and YouTube ecosystems.
- (4) Platform Data and APIs — Application Programming Interfaces (APIs) and their role in digital research; Twitter Academic API (and alternatives post-2023); YouTube Data API; Reddit API; limitations and biases of platform APIs; scraping vs. API-based data collection — legal and ethical dimensions; introduction to data cleaning and management using spreadsheets and basic Python/R.

Unit IV: Applied Digital Research and Indian Contexts

- (1) Studying Social Media in India — India's social media landscape; WhatsApp, YouTube, Instagram, Facebook, Sharechat, Koo, Moj, and regional platforms; research on misinformation and fake news on Indian WhatsApp networks; vernacular digital media research; methodological challenges of studying multilingual, multi-script digital content; cross-platform research design.
- (2) Big Data and Computational Communication Research — What is big data and why it matters for communication research; computational approaches to studying media agenda-

setting, framing, and gatekeeping; digital trace data — clickstreams, app usage, metadata; challenges of big data research — volume, variety, veracity, velocity; ethics of behavioural data research; case studies from Indian digital journalism and OTT platforms.

- (3) Mixed Methods in Digital Research — Integrating qualitative and quantitative digital methods; combining netnography with network analysis; combining automated content analysis with in-depth interviews; sequential and concurrent mixed methods designs; triangulation of digital and offline data; writing integrated findings from mixed digital methods.
- (4) Writing, Reporting, and Publishing Digital Research — Structure of a digital methods research paper — methods section conventions; reporting computational and digital methods with transparency and replicability; open science practices — open data, pre-registration, code sharing; situating digital research within Indian and global communication scholarship; targeting journals (Journalism & Mass Communication Quarterly, New Media & Society, Journal of Computer-Mediated Communication, Media Asia).

Unit V: Tutorial / Lab Component

- (1) Online survey design — Design a 15-item online survey on a media behaviour topic; pilot with 10 respondents; write a brief methodological reflection on sampling and platform choices
- (2) Netnography field note exercise — Select a public online community (Reddit, Facebook group, or YouTube comment section on a communication-related topic); conduct two weeks of systematic observation; submit 3 structured field notes of 300–400 words each with reflexive commentary
- (3) Automated text analysis exercise — Download a sample dataset of tweets, news articles, or YouTube comments (100–200 items); run a frequency and sentiment analysis using Voyant Tools or LIWC; present findings as a brief 500-word report with visualisations
- (4) Social network visualisation exercise — Using a provided or publicly available dataset of a communication network (e.g., Twitter retweet network or a political hashtag), create a network visualisation in Gephi; identify key nodes and interpret the network structure
- (5) Research design mini-project — Individually formulate a feasible digital methods research proposal (1,500 words) on a topic in Indian digital media, specifying the research question, method, data source, ethical considerations, and expected contributions

Continuous Evaluation

Any one of the following (10 Marks)

- a) Group Discussion
- b) Class Test.
- c) Assignment
- d) PowerPoint Presentation

Suggested Readings

Rogers, R. — Digital Methods (MIT Press, 2013 / Updated edition)

Kozinets, R. V. — Netnography: The Essential Guide to Qualitative Social Media Research (SAGE, 3rd ed., 2020)

Salganik, M. J. — Bit by Bit: Social Research in the Digital Age (Princeton University Press, 2018; also available open-access online)

Veltri, G. A. — Digital Social Research (John Wiley & Sons, 2019)

Lomborg, S. — Social Media, Social Genres: Making Sense of the Ordinary (Routledge)

Baym, N. K. — Personal Connections in the Digital Age (Polity Press)

Bruns, A. — Are Filter Bubbles Real? (Polity Press)

Examination Question Pattern

For 60 Marks

Sl. No.	Questions to be answered	Out of	Marks of each question	Total Marks
1	4	6	3	4x3=12
2	4	6	6	4x6=24
3	2	4	12	2x12=24

Semester	8
Paper	MAJOR 21
Paper Description	Research Project
Paper Code	
Paper Type	Practical
Credit	12
Class hours	120
Distribution of Marks	80 (60 Marks in Theory + 20 Practical/Projects)
Duration of the Examination	2.5 hours

Brief Course Description:

This practical paper is designed to equip undergraduate students with hands-on skills in conducting, documenting, and presenting communication research. While the companion theory paper introduces students to research philosophy and methodology, this practical component translates those concepts into applied experience — enabling students to formulate research problems, collect data, analyse findings, and communicate results in formats relevant to media and communication practice.

Prerequisite(s) and/or Note(s):

- (1) Higher Secondary or equivalent certification from any recognized board.
- (2) Note(s): The syllabus changes yearly and may be modified during the term itself, depending on the circumstances. However, students will be evaluated only on the basis of topics covered in the course.

Course Objectives:

Knowledge acquired:

- (1) Familiarise students with the complete cycle of empirical communication research through direct, hands-on engagement

Skills gained:

- (1) Develop competency in selecting, designing, and executing a research project in a media or communication context
- (2) Build skills in applying both qualitative and quantitative data collection methods appropriate to communication studies
- (3) Enable students to interpret data, draw research-backed conclusions, and present findings in standard academic formats
- (4) Cultivate ethical awareness in research practice, including informed consent, plagiarism avoidance, and data integrity

Competency Developed:

- (1) Formulate a research problem, write objectives, and frame hypotheses or research questions relevant to media/communication contexts
- (2) Conduct a systematic literature review and prepare an annotated bibliography using communication journals and databases
- (3) Design and administer a data collection instrument such as a questionnaire, interview schedule, or observation protocol
- (4) Apply any one of the following methods: survey, content analysis, focus group discussion, or case study
- (5) Tabulate, code, and present data using basic statistical or qualitative analytical tools
- (6) Write and present a mini research report in standard academic format — including abstract, introduction, methodology, findings, and conclusion.

Course Syllabus

Students must write and defend a research paper incorporating five of the following steps.

- (1) Problem Identification — Identify a researchable communication problem; write a one-page problem statement with justification and research objectives
- (2) Literature Review — Conduct a literature review of at least five academic sources on an assigned media topic; prepare a structured review summary
- (3) Questionnaire Design — Design a structured questionnaire of 15–20 questions (incorporating nominal, ordinal, and Likert-scale items) for a survey on media use or audience behaviour
- (4) Sampling — Identify a target population for a communication study; determine an appropriate sample using probability or non-probability techniques; justify the choice
- (5) Survey Administration & Data Collection — Administer the designed questionnaire to a sample of 30–50 respondents; tabulate and present raw data in a data sheet
- (6) Content Analysis — Select a media text (newspaper, social media feed, or television bulletin); develop a coding scheme and apply it to analyse content for at least two categories
- (7) Interview / Focus Group — Conduct and transcribe a semi-structured interview or a small focus group discussion (4–6 participants) on a media-related theme
- (8) Data Presentation Using Tools — Represent collected data using tables, graphs, pie charts, or bar diagrams (manually or using MS Excel / SPSS)

- (9) Mini Research Report Writing — Write a 6000–8000 word mini research report based on any one completed exercise above, following APA citation standards
- (10) Research Presentation — Present the mini report findings before a panel of faculty/examiners; prepare a PPT (minimum 16 slides); undergo a viva-voce examination

Continuous Evaluation

Any one of the following (10 Marks)

- a) Group Discussion
- b) Class Test.
- c) Assignment
- d) PowerPoint Presentation