Transition in traditional survey methods

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Overview

This paper has been broadly divided into four parts-

1. The use of traditional survey methods and its challenges
2. The advent of technological advancement in modern survey methods
3. Ethical protocols
4. Hope for a participatory digital democracy
Traditional Survey Methods

Following are the traditional survey methods used before the advent of technological boom.

- Paper based surveys require data entry and telephonic interviews.
- Over time there has been a change from traditional methods to digital data collection – leading to lesser errors, timelines and cost of data entry.
- Moving away from mechanical and analogue processes towards digital technology, were first seen in the process of digital record keeping.
- Initially, technology was controlled by the government and major private sector industries due to high costs involved.
- The dot com boom in the late nineties, propelled the world towards digitalization.
Challenges in the Indian Research Scenario

• Outdated data sets driving policy changes leading to ineffective implementation of large scale welfare schemes.

• In the case of a country like India, the demographic and geographic expanses pose high logistical issues which are resource devouring.
  • This is especially the case when using traditional methods, such as paper based quantitative surveys, which have an increased susceptibility to human error, financial expenses, logistical expenses and environmental degradation.
  • For example – we experienced a lot of difficulties in completing data collection and entry for one of our projects in Bihar involving 40,000 student assessments.
Advent of Technology in Surveys

• The dot com boom of the nineties and the growth of the IT sector bought rapid changes in the research methods within the development sector.

• Introduction of Computer Assisted Personal Interview (CAPI) based surveys using tablets and smart phones helped in reducing logistical issues related to data storage.

• Further advancements have led to the introduction of GPS to monitor quality and authenticity of data collected by independent enumerators.

• Usage of UAVs in mapping natural resources in terrains previously inaccessible to research and state agencies.
  • Outline India used drones to review geo-spatial and topography of the village through GIS mapping to help the Sarpanch in a district in Haryana to plan the infrastructure of the village.
Digital Democracy in India

• Over the last decade there has been a huge government led mandate to push for digitalization in India, especially the ‘Digital India’ process.

• India is estimated to have 800 million smartphone users by 2022.

• Advancements in infrastructure in place for a people centric democracy.

• Internet has played a huge role in increasing participation of the public on welfare schemes via digital grievance redressal, feedback and voicing of opinions.
Advantages of digital data collection

• Digital data collection plays a role in conducting non-partisan research.

• Takes into account the marginalized communities which are often grossly under represented in these processes.

• Geo tagging ensures mapping of locations and enables researchers to monitor enumerator activity. It also aids in easy identification of data discrepancies while data cleaning.

• A more disciplined approach towards field data collection by the field team after being made aware of the checks.
Examples of Success Stories of Digitalization in India

- Data is crucial in driving effective welfare policies for government and non-government agencies.

- Usage of EVMs in the Indian Elections in the 1990s a good example of data collection for a definite result.
  - Reduced logistical costs and manpower required for counting.
  - Brought down malpractices by supporters of political parties.

- Another example is - Jeevika (Bihar Rural Livelihoods Programme)
  - World Bank funded programmes on setting up of Women SHGs across Bihar..
  - Digital data collection and digitization of records help Jeevika highlight the work undertaken by it on a global scale.
Challenges of digital democracy and digital data collection

• Age of Big Data commences, easy and cost effective methods developed to reach mass audiences.

• ‘Data’ is becoming a valuable resource for both the government and non government players.

• Even after acquiring consent and providing privacy guidelines, there are chances of misuse of digital data.

• Cambridge Analytica Scandal
  • Accused of utilizing Facebook user data to influence opinions via targeted political advertising
  • Facebook stating that the users approval by accepting the terms and conditions of Facebook policies.
Challenges of digital democracy and digital data collection

• Frequent data hack and leaks prominent in jeopardizing the public’s personal information on a global level.

• No control of the public over their data being shared or distributed by large technological companies making it impossible for them to be held accountable.

• True control of the digital system is still under the control of the government who regulate the choices for the public.

• Rise in the creation of incorrect facts and news creating a violent rhetoric amongst the public has seen the rise in hate crime, xenophobia and racism.
Way forward

• Educate the public about the need to be wary of the knowledge systems.

• Important to create fact check safeguards around information that is being publically shared.

• Strict measures to be taken by ISP and social media companies to ensure authenticity and non-partisanship of the data circulating on their platforms.

• Further strengthening data science and AI algorithms to help in identifying and cleaning falsified data that is in circulation and present for the public to access.