

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- Outdated data sets driving policy changes leading to ineffective implementation of large scale welfare schemes.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