

Recent Trends and Developments in Social Sciences : With Special Reference to Application in Geography

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Abstract:

Social sciences dealt with the scientific aspect of the society. Social sciences include Economics, Sociology, Political Science, History, Geography etc. Although it is known by different names, the qualitative–quantitative divide is a common enough description for battles between the general and the unique in the social sciences. Specifically talking about Geography it is the science and art of defining a particular area over the earth surface including its related scientific aspects. The digital age, also called the information age, is defined as the time period starting in the 1970s with the introduction of the personal computer with subsequent technology introduced providing the ability to transfer information freely and quickly. Back to the history geography starts with the traditional method of map making in Greece. But in modern age geography changes its track from traditional approaches to the use and study of new modern tools and techniques. A new branch has evolved i.e., Applied Geography. Insofar as applied geography endeavours to link general processes to specific cases, qualitative approaches are uniquely positioned to make meaning in place, impact policy, and transform everyday life. Qualitative methods have become an important tool for applied geographers. The goals of applied geography require the use of many types of geographic tools. Qualitative methods allow applied geographers to expand the boundaries of research. In recent trend and development Geography turned to many fold evolution. Now Geography has been applied to many fields like navigation, transport management, agriculture etc. The study of Recent Trend and Development in Social Sciences: With Special Reference to Application in Geography may show a significant change of different branches in Geography through time and space which has been reflected the technique in the figures of AMC area of Dibrugarh District and Digboi Town of Tinsukia District. The study reveals that how the union of qualitative methods and a focuss on the specific with different geographical technologies has led to innovative and exciting ways of understanding and visualizing the multifaceted relationship between spatial phenomena. This study is mainly descriptive method and based primarily on secondary data collection.

Key Words: Digital age, innovative, modern, qualitative, quantitative, social sciences, specific, techniques, traditional, unique

Introduction:

The development of geography and geographical concept has been revolutionized and there is now a lot of progress in the geographical thought which has made geography a subject of great interest and knowledge, previously it appeared that its scope is limited up to the knowledge of different regions of the world with their land forms, climate,

natural resources and man, simply knowing the names of different continents, countries, capitals of different countries, regional variations, climatic influences and other physical aspects was enough. But now in the last phases of 20th century there is a tremendous change in the geographical thinking. It is more a subject merely with dealing the physical surroundings of man. The geographers of the past were satisfied by delineating the earth's surface into different physical units either on the basis of physical characteristics or cultural developments. Broader aspects of geography in modern context were totally unfamiliar and beyond the thinking of the geographer. But the situation is now changed.

At present the geography is not centred only to physical geography. It has leaped forward. It touches and deals with cultural geography more popularly known as human geography, economic geography, regional geography and systematic geography. Systematic geography, which has not been touched so far, deals with the problems of the modern world. It covers either a small area or the entire area of the earth's surface but in a systemic way with proper dates, facts and figures. Political geography, for example in a systemic way, deals with interrelationships between nation states. It deals with the geography background of power and power blocks. It throws light on the dispute of boundaries of different countries in a systematic way. Biogeography deals with animal and plant life. Medical geography deals with the investigation of environmental factors for epidemic effects of certain diseases. All these new branches of geography show how much development has taken place in the development of geographical thought. The new fields of geography not mentioned so far are: historical geography, urban geography and educational geography etc. The specialisation on different geographic spheres is also going on. For example a detailed study on a particular region or a country or a landform is now not uncommon. The change and development of geography in the modern context, it does not leave any sphere which has interrelationship with man. Therefore, a new study on "Recent trends and developments in social sciences : with special reference to application in geography" is taken for investigation.

Objectives:

1. To track the evolution of Geography as a subject of social science
2. To show the importance of geography in recent trend and development
3. To show the link between geography with other scientific tools and techniques

Methodology:

The study has been done on the basis of secondary data. Library work done to find out relevant information in books, journals, articles, monographs, etc and also assembling personal experiences. Theoretical knowledge and imaginations, opinion, observation in the field. Base maps are collected from the Dibrugarh and Tinsukia Municipal boards (AMC area and Digboi town), topographical maps are collected from survey of India, Guwahati and Partially GIS and Remote Sensing Techniques are used to show the expansion of towns as an example. Input of map data through scanning into GIS where collected paper maps are scanned with high resolution to transfer in to digital format for on screen progress in GIS platform. Then georeferencing is done. After, digitization is done for different requirement based on themes e.g. the building structures will be given more importance in the study of urbanisation. The digitization of features has to be done separately for different temporal data i.e., 2003 SOI toposheet, 2014 satellite imagery (Google earth professional). After digitization digital layers will be superimposed with one another for desired objective e.g., built up area of

2003 built up area of 2014 to know the pattern and direction of urban expansion. Then thematic maps are prepared based on superimposition of digitized temporal feature map layers one after another to find out the temporal changing pattern with all the attributes and information with proper cartographic methods and the output will be ready to print.

Analysis and Discussion:-

Recent Trend:-

The quantitative revolution in Geography was largely concerned with giving geography a scientific approach along with the application statistical methodology to geographical research. The quantitative revolution has lead to the identification of two major approaches to the study of geography.

1. Spatial Analysis:-It refers to the quantitative (mainly statistical) procedures and techniques applied in locational analytic work, although such procedures and techniques are not particular to the philosophy of positivism.
2. Spatial Science:-The presentation of human geography as that component of the social science which focuses on the role of space as a fundamental variable influencing the organization and operation of society and the behavior of individuals. It was formulated during the quantitative revolution and is usually closely related to the philosophy of positivism.

The word 'space' appears to be closely associated with the quantitative revolution. It was only in the late 1940s and early 1950s that the conception of space became a recognisable tradition of inquiry in modern geography when Schaefer (1953) declared that spatial relations alone are the once that matter in Geography. Space has now become the basic organizing concept of the geographer.

Recent Trend and Development in Geomorphology:

Geomorphology was started to be put on a solid quantitative footing in the middle of the 20th century. Following the early work of Grove Karl Gilbert around the turn of the 20th century. These methods began to allow prediction of the past and future behaviour of landscapes from present observations, and were later to develop into the modern trend of a highly quantitative approach to geomorphic problems. In the year 2000 a marked increase in quantitative geomorphology research occurred.

Quantitative geomorphology can involve fluid dynamics and solid mechanics, geomorphometry, laboratory studies, field measurements, theoretical work, and full landscape evolution modelling. These approaches are used to understand weathering and the formation of soils, sediment transport, landscape change, and the interactions between climate, tectonics, erosion, and deposition.

In now recent trend and development, Geography has evolved with new technology of GIS and remote sensing which enabled the terrain mapping and elevation models for 3D analysis that made topographic analysis.

Recent Trend and Development in Cartography:

Anaximander was the first ancient Greek to draw a map of the known world. It is for this reason that he is considered by many to be the first mapmaker. Cartography, or mapmaking, has been an integral part of the human history for thousands of years. From cave paintings to ancient maps of Babylon, Greece, and Asia, through the Age of Exploration. In ancient times the map makers have to collect the required data for mapping a particular area by physically travelling to all the corners of the area to be mapped. One classical example is the travelling of Magellan across the Atlantic to make sure that the earth is round.

In the 21st century, people have created and used maps as essential tools to help them define, explain, and navigate their way through the world. Maps began as two-dimensional drawings but can also adopt three-dimensional shapes (globes, models) and be stored in purely numerical forms. For the preparation of these maps the modern technique of GIS and Remote Sensing has now been in use. The required datasets are available with the respective organizations for use as inputs.

Recent Trend and Development in Agricultural geography:

Agricultural geography is a sub-discipline of human geography concerned with the spatial relationships found between agriculture and humans. It investigates those parts of the Earth's surface that are transformed by humans through primary sector activities for consumption. It thus focuses on the different types of structures of agricultural landscapes. In ancient times Agricultural geography studies the traditional method of delineating the agricultural lands, pattern of agriculture, traditional tools used in agriculture, classification of soils, etc.

But in modern times, the scope and study of agricultural geography is evolved with the modernization of agricultural techniques and agricultural practices. The technique of GIS and Remote Sensing has made easy the delineation of agricultural land, soil classification, soil mapping, crop intensity mapping, etc.

Recent Trend and Development in Urban geography:

Along with these major branches of geography other allied disciplines like urban planning, regional planning, land use land cover changes, etc. have also progressed towards the modern techniques of GIS and Remote Sensing. Now a days GIS and Remote Sensing has been extensively used in all fields for better improvement and results. These tools and technologies cut short the time and effort. Moreover, it offers us with more accuracy than traditional one.

In urban planning this technology and tools have been used very extensively, urban sprawl mapping, town and country planning, urban change detection, master planning. Study urban growth/sprawl and trend of growth, Study of urban morphology, Slum detection, monitoring and updating, Site suitability and catchments area analysis, Study of open/vacant space, Zoning, etc can also be done using the modern technology of GIS and Remote Sensing.

Recent observations indicate some changes in the structure and process of urban growth in the two towns of Dibrugarh and Tinsukia Districts

As an elaboration to the above two selected images of township has been presented to show the expansion in spatio- temporal dimension that can clearly reflect the changing pattern and direction (fig-1 & fig-2).

**Dibrugarh District
Expansion of AMC Area
2003, 2014**

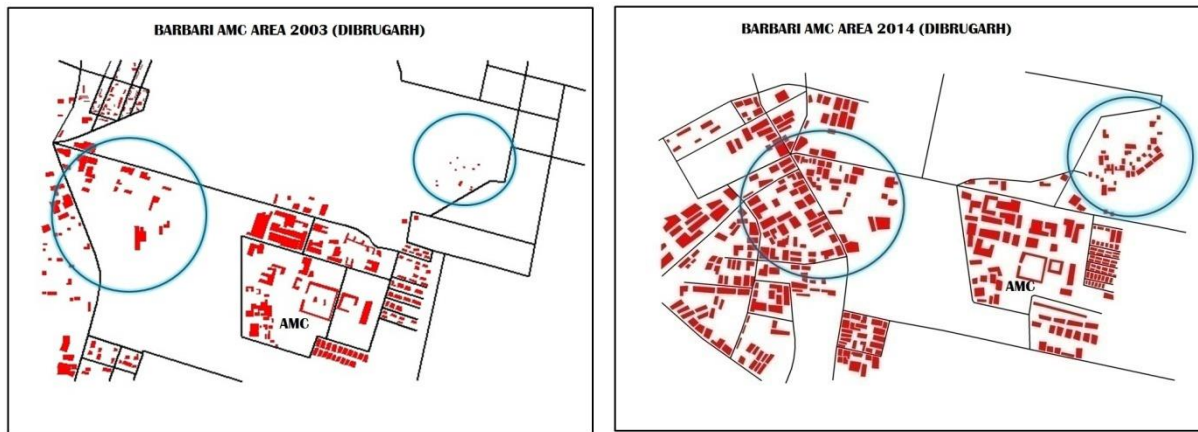


Fig-1

source:Dibrugarh Municipal Board,SOImap2003,satellite imagery 2014 (Google earth professional).

**Tinsukia District
Expansion of Digboi Town
2003, 2014**

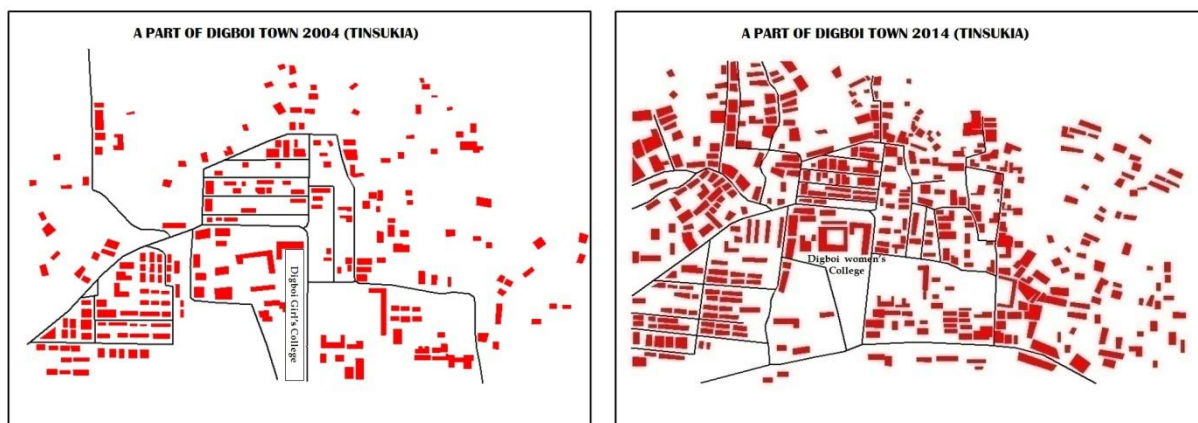


Fig-2

source:Tinsukia Municipal Board,SOI map2003,satellite imagery 2014 (Google earth professional).

From the above discussion one may come to an idea that in last 10 years the both towns have been emerged and expanded to a great extent spatially in different directions.

Conclusion and Recommendations:

Traditional ways of research works, data collection, analysis etc in social sciences has now been overtaken by digital models and techniques in all the branches of geography. In now a days fast moving digital age, traditional ways of learning and acquisition of knowledge everyone has put their steps together with the digitalization. In the recent days the age of internet, we can access millions of resources on a given topic with the simple click of a mouse. We have seen from the above discussion that how the union of qualitative methods and a focus on the specific with different geographical technologies has led to innovative and exciting ways of understanding and visualizing the multifaceted relationship between spatial phenomena. Indeed through the thoughtful use of qualitative methods, applied geographers can truly begin to understand the complex interactions occurring all around us between society, environment and place.

Of course there is a positive effect however there is also a negative effect in recent trend and development. With the emergence of modern world our lives have become so mechanistic. The recent aspect of digitalization has also harmed our society. It harms the environment in the process of making and delivering any product. It causes medical problems because screens can harm our eyes and can cause addiction along with mental instability. Lastly, it creates major social issues. People can become isolated and even depressed due to the fact that they are consumed by technology. Technology may be helpful at times, but it is worth losing all our cultural and societal values to a device.

The drawbacks of technology on our environment, health, behaviour, relationships, business, education, society etc cannot be overlooked almost every action or activity we perform now a days is somewhere associated or dependent on technology. Thus making us addicted to it. It is important to invent and shape technologies in a human- friendly way. After all humans are supposed to rule over technology and not get ruled by technology.

References:

- Dalton, C. M.(2018):*Playful Mapping in the Digital Age*, Published online: 12 Jan 2018
- Nellis, M. D, Kevin P. P, and Rundquist, D: *Remote Sensing of Cropland Agriculture*.
- Reddy,A.(2008) :*Textbook of Remote Sensing and Geographical Information Systems*, Pub Date: December 2008
- Shukla, D.P (2017): *Hydro-Geomorphology - Models and Trends*, InTech, publishing