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A state-of-the-art digital tool for India studies

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Topographical sheets from the 1860s to the present from the British Library, the Survey of India, and other libraries around the world; and from Census of India material — these are the building blocks of a new and versatile geographical information systems (GIS) tool developed by Tsukasa Mizushima, professor of South Asian History at the Graduate School of Humanities and Sociology at Tokyo University, and his colleagues.

Professor Mizushima is presently working at the British Library in pursuit of his research on 18th-century India.

The uses of the India Place Finder , described by Professor Mizushima as "the most detailed gateway to find place names with latitude and longitude and the 2001 census location code today in India," are manifold.

At the most popular level, it is a place locator that does what other cartographic programmes do not.

Suppose you are an Indian whose family migrated two generations ago from a remote hamlet in what used to be the United Provinces during British rule. All you remember is your grandmother telling you that the name of her village was Ramgarh, it was near the Ganga, and it took two days by bullock cart and then a day by boat to get to Benares from her village. You wish to visit the village your forebears came from, but you do not know its location, or even the modern name for the State or district in which it is located. You discover that there are multiple Ramgarhs in the swathe of the Gangetic plains. You do not even know if your Ramgarh still exists. Google maps are of little assistance to you.

The place finder can be an important new means of helping you. Key in "Ramgarh" on the place-finder gateway, and dozens of candidates — Ramgarh with all its possible spelling variations — will appear on the screen, each with the name of the relevant sub-district, district, state, latitude and longitude and Census of India 2001 location code. You can now narrow your search to fit in with the fragments of your grandmother's oral description, and locate your ancestral village.This particular use of the India Place Finder is really only a useful by-product of what its developer intended when he began working on it. Indeed, its uses for research and academics are of far greater importance.

As an economic historian, Professor Mizushima wanted to find ways of mapping the rich historical statistics reaching back to the 18th century for south India. "I wanted a more sophisticated tool to integrate this rich historical inheritance," he says. This started his search to create new GIS infrastructure.

This use of this deceptively simple gateway is free, even though it took five years and US $ 1.2 million to develop, with funding from the Japan Society for the Promotion of Science. The project involved digitizing data from 4,500 Survey of India topographical maps from 1869 to 2010, and Census of India maps and data from the 2001 district census handbooks.

A digital foundation

The India Place Finder offers a digital foundation that allows a researcher to link with many other types of information in digital format.

"For example, if you want to represent demographic changes over time in every village in India, or industrial development of a particular area over time, or changes in occupational structure, it can be done in 10 or 20 minutes now," Professor Mizushima says.

Getting the base information was difficult, as access to Survey of India toposheets and to the 2001 Census digital infrastructure with the Census of India is restricted by Government of India regulations. Mr. Mizushima worked around this restriction by obtaining toposheets from libraries and collections around the world. The census location codes were taken from the 2001 district census handbooks, which have maps on which villages are marked.

The result is that the India Place Finder is today the most detailed GIS offering in India of its kind, as it provides data on some 900,000 villages (including hamlets) in India. Professor Mizushima makes a strong case for free access to "infrastructural knowledge" like maps, statistics relating to history, or the lives of people. It is only then that a tool like the GIS can be used for "upgrading human life."