

At the Nexus of History and Geography: GIS Applications in Area Studies

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1. INTRODUCTION

Area studies posits value in comparative research on a given location from the varied perspectives of a range of disciplines. Geographic Information Systems (GIS) organize data by location. In recent years, spatial data creation and distribution grown exponentially. GIS, as one of the most effective mechanisms for managing spatial data resources and enabling their integration with research data, holds great promise for researchers. How can the growing availability of GIS technology and data resources aid those working in area studies? This presentation looks at the current state of area studies in the United States, and discusses selected key barriers and advantages in the use of GIS by area studies scholars.

2. AREA STUDIES IN THE UNITED STATES

Area studies as an organizing principle for the study of cultures gained favor on American campuses in the wake of the second World War, and especially in the Cold War period. By the end of the century, area studies programs were under fire on a range of fronts. While area studies is by no means limited to the humanities, this presentation will focus on issues in the humanities, particularly on history, which is at once a central concern of area studies and at the same time, one the of the most complex cases for GIS application.

3. PROBLEMS IN THE APPLICATION OF GIS IN AREA STUDIES

GIS is often interpreted to mean narrowly software, whether proprietary or open source. At the GIS Center in UC Berkeley, we endorse a far more expansive definition, encompassing the use of geo-spatial data in a range of capacities, with an emphasis on what might be termed spatial literacy. GIS is thus tied to no specific technology, but rather an approach to organizing and analyzing data in spatial terms. We promote expanded access to and use of geo-spatial data, and the employment of whatever tools are currently the most effective available for the needs of our community of users.

Historians using GIS have consistently confronted the issue of uncertainly. Historical research itself is

fraught with uncertainty. Even in contemporary applications, uncertainty is an issue; for historical data, the problems are greatly amplified. Given the lacunae in the historical record, what compromises can be made in GIS visualizations that are acceptable for scholars?

It is said that “culture is history plus geography.” GIS, first developed to manage data relating to geography, is only beginning to play a significant role in the management of historical information. A major reason for this is the want of effective tools for the management of information relating to change over time, a critical element in humanities research. The “snapshot” and the animation (usually a rapid and extended array of “snapshots”) are two methods of working with time.

The greatest strength of GIS is data integration. This makes not only the integration of multiple types of cultural data and data comparison possible, but also makes possible the integration of multiple perspectives and potentially contradictory interpretations of data as well. Despite the strength of GIS in terms of integration, this is not a simple issue, and even more complicated when comparing area studies data across the boundaries of commonly accepted academic territories, such as comparing data from Chinese programs and Southeast Asia programs. Each of the customary divisions of area studies has its own interests, priorities, history, and approach; these are not uniform across the range of area studies programs. Comparing data across traditions can be a complex issue.

4. POTENTIAL ADVANTAGES OF GIS APPLICATION IN AREA STUDIES

Despite the problems and barriers, there are a number of issues that suggest the potential utility of GIS in area studies research. In recent years, the subjective and contested nature of historical narrative has been much discussed. GIS can be employed in ways that accommodates these debates. The flexibility of scale in GIS is one key element. Given the challenge to area studies as globalization studies gained currency, the ability to organize and visualize information on a global scale becomes an attractive characteristic for scholars. Similarly, data supporting diaspora studies, which follow the global flows of populations, can be effectively visualized in GIS.

At the same time and at the opposite end of the spatial spectrum, some scholars see the examples of area studies research that tightly defines its subject area as some of the best work of recent years. Again, just as GIS can paint a global picture, it is at least as capable of managing information at a large scale for a given location or locations. Further, with developments in participatory GIS, researchers have experimented with systems that empower subject communities to control information flows and data input, an option not readily available in the culture of academic publishing as it is commonly known.

5. CONCLUSION AND DISCUSSION

Scholars are confronting a range of issues as they explore the uses of GIS in their research. As yet, the full promise of GIS in humanities research remains unfulfilled. As GIS resources continue to expand, as GIS technologies improve vis a vis the needs of scholars, and as scholars use GIS to further their research in ways not hitherto possible, GIS will play an increasingly important role in the academic landscape.

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