Potential Applications of GIS for Linguistic Data

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Linguists and cultural geographers have recognised the value of mapping linguistic information for a long time. In the last several decades the rise of Geographic Information Systems (GIS) has revolutionized not only the way maps are made but also how they are used. The aim of this talk is to provide a brief overview of the use of GIS for storing, mapping, and analysing geographic linguistic data. As a computer database, GIS offers an efficient means for storing large amounts of complex data. With internet-based technologies, maps need not be static and limited to information chosen solely by the map-maker. Instead, internet-based GIS maps provide map users with the opportunity to interact with geographically-based linguistic data in ways not previously possible with traditional maps and atlases. More information can be provided to the user because the user is empowered with the choice of what data to select and display. GIS also offer a variety of spatial and statistical tools capable of analysing the spatial characteristics of linguistic data in geographic space. A GIS for example, is well-suited to measure and provide visualisations of geographic concepts such as proximity, diffusion, spatial patterns and spatial relationships. This talk will cover these applications in general with examples from a variety of studies, and will conclude with examples of potential applications of GIS in the Fiji Language Project.