

Empowering GIS education program : is GIS as a science, art or tool?

ABSTRACT

The technology of Geographic Information System (GIS) is demanding nowadays as to provide professional to perform research science and administration in various disciplines. The higher education institutions plays a crucial role in providing the GIS education programs or courses in promoting the growing use of GIS at university level especially for undergraduate's, master's and Ph.D. This paper reviews and discusses the strength of GIS position as GISystem and GIScience, and our perspective in empowering students to answer the question to GIS communities: is GIS as a science, art or tool? It is important for the related department, users and public to aware and understand the GIS different position as the GIS education nowadays become more challenging to be taught in the higher education institution. The answers for the term "a GIS as a tool" and "a GIS as a science" are based on definitions of GIS and the area/disciplines involved in GIScience. We relate our discussion to the student's awareness and competences in different level of GIS education program required to fulfill by the students after they graduated. In term of "a GIS as an art", our opinion dominantly relates to cartography as the discipline that highly contributes to the visualization and presentation capability in GIS.

Keyword: GISystem; GIScience; GISart; GIStool; Education program; Definition.