Pengembangan model web-based gis pengetahuan tradisional di Indonesia menggunakan soft system methodology (SSM) dan service oriented architecture (SOA) = Development of web based gis model traditional knowledge in Indonesia using soft system methodology (SSM) and service oriented architecture (SOA)

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Abstrak

Indonesia memiliki kekayaan pengetahuan tradisional yang sangat beragam. Namun, pengetahuan tradisional ini diketahui oleh komunitas lokal yang memiliki pengetahuan tersebut, sehingga tidak dapat dikontrol dan dipantau lokasi persebarannya. Begitu juga data apa saja yang terkumpul, alur pemrosesan data dan organisasi yang memiliki data tersebut belum diketahui secara jelas. Selain itu, data digitalisasi pengetahuan tradisional tersebar dan disimpan dalam sistem yang berdiri sendiri. Maka, diperlukan integrasi data agar tidak terjadi duplikasi data pengetahuan tradisional.
Penelitian ini bertujuan untuk mengembangkan sebuah model dan arsitektur web-based GIS persebaran pengetahuan tradisional di Indonesia menggunakan soft system methodology dan service oriented architecture. Kontribusi dalam penelitian ini yaitu menggabungkan pendekatan pendekatan soft system methodology SSM dan service-oriented architecture SOA untuk membangun web-based GIS dan memberikan rekomendasi model web-based GIS pengetahuan tradisional di Indonesia.
Dari hasil pengujian efficiency dengan aspek response time pada sistem web-based GIS yang dibangun menggunakan GTmetrix didapatkan nilai rata - rata sebesar 3,021 second. Nilai ini jika direpresentasikan menggunakan rentang response time yang dikemukakan oleh Anna Bounch mendapatkan rating 'good'. Dari hasil pengujian usability menggunakan kuesioner system usability scale didapatkan nilai 73,07. Nilai ini jika direpresentasikan menggunakan rentang nilai yang dikemukakan oleh John Brooke dapat dikategorikan dapat diterima acceptable.
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Indonesia has a wealth of traditional knowledge that is very diverse. However, this traditional knowledge is known by the local community who has such knowledge, so that it can not be controlled and monitored by the location of its distribution. So also what data is collected, the data processing flow and the organization that has the data is not known clearly. In addition, digitalization data of traditional knowledge is dispersed and stored in stand alone systems. Therefore, data integration is needed to avoid duplication of traditional knowledge data.
This research aims to develop a model and architecture of web based GIS distribution of traditional knowledge in Indonesia using soft system methodology and service oriented architecture. The contribution of this research is to combine the approach of soft system methodology SSM and service oriented architecture SOA approach to build web based GIS and provide recommendations of traditional GIS web based knowledge model in Indonesia.
From the results of efficiency testing with the response time aspects of web based GIS system built using GTmetrix obtained an average value of 3.042 second. This value if represented using response time range proposed by Anna Bounch get good rating. From the results of usability testing using questionnaire system

usability scale obtained value of 73.07. This value if represented using the range of values suggested by John Brooke can be categorized as acceptable.