

**Title of Article:** Quantitative Quality Model for Evaluating Open Source Web Applications: Case Study of Repository Software

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**Abstract:** Many open source web applications exist today and universities also find them useful. For instance, universities now manage most of their research output by storing them in their respective institutional repositories. These repositories are often built as open source web applications and known as repository software. Several of these exist but three popular ones include: DSpace, EPrints and Greenstone (DEG). These three are open source and built by different institutions. Considering their increasing adoption and usage by universities today, it would be useful to have a model that can compare between the qualities of two or more web applications and suggest the better option to an institution intending to adopt one. This paper therefore proposes a model for measuring quality in open source web applications (focusing on repository software) by adapting existing quality models. The proposed model is used to measure quality in DEG. The proposed model is validated through real data and the results presented and discussed. Overall, the model rated DSpace as the better option.