ABSTRAK

IMPLEMENTASI METODE CONTENT-BASED FILTERING PADA SISTEM LEARNING ANALYTIC (STUDI KASUS: HADITS)

Oleh

Piscal Pratama Putra
1167050120

Di indonesia dunia pendidikan telah mengalami perkembangan yang cukup signifikan. Proses belajar dengan tatap muka saat ini berasumsi bahwa kemampuan peserta belajar di kelas sama, sehingga hasil pemberian materi atau pengajaran akan kurang efektif, karena akan ada peserta belajar yang kurang bisa memahami dan di sisi lain terdapat peserta belajar yang sudah sangat mengerti. E-learning merupakan salah satu bentuk teknologi informasi yang dapat digunakan sebagai media pembelajaran. Kebanyakan e-learning yang dipakai saat ini hanya berupa pemberian dan penugasan materi. Dengan learning analytic peserta belajar dapat mengetahui materi yang kurang dipahami berdasarkan hasil evaluasi pemahaman peserta belajar berupa rekomendasi. Salah satu metode rekomendasi yang dapat membantu proses perekomendasian hadits ini adalah Content-Based Filtering. Metode Content-based Filtering merupakan metode rekomendasi yang didasarkan pada deskripsi item dan profil preferensi penggunanya. Hasil dari penelitian ini yaitu peserta belajar mendapatkan saran belajar berupa bab hadits yang belum dikuasai nya, saran tersebut didapat berdasarkan hasil tes pemahaman peserta sebelumnya. Metode Content-Based Filtering yang diterapkan pada proses perekomendasian saran belajar dapat di implementasikan dengan baik, dengan menggunakan skala likert sebagai perhitungan bobot nya. Dibuktikan dengan kecilnya rata-rata nilai Mean Absolute Error (MAE) yaitu 0.21 dari percobaan yang telah dilakukan.

Kata Kunci : Learning Analytics, Content-Based Filtering, Sistem Rekomendasi, Hadits, Mean Absolute Error

ABSTRACT

IMPLEMENTATION OF CONTENT-BASED FILTERING METHOD IN ANALYTIC LEARNING SYSTEM
(CASE STUDY: HADITH)

By

Piscal Pratama Putra
1167050120

In Indonesia, the world of education has experienced a significant development. The face-to-face learning process currently assumes that the ability of participants to learn in class is the same, so the results of providing material or teaching will be less effective, because there will be learning participants who cannot understand and on the other hand there are learning participants who already understand very well. E-learning is a form of information technology that can be used as a learning medium. Most of the e-learning in use today is only in the form of giving and assigning material. With learning analytics, learners can find out material that is poorly understood based on the results of evaluating the participants' understanding in the form of recommendations. One of the recommended methods that can help the recommended process of this hadith is Content-Based Filtering. The Content-based Filtering method is a recommendation method based on item descriptions and user preference profiles. The results of this study are that the learning participants get learning suggestions in the form of hadith chapters that have not been mastered, these suggestions are obtained based on the results of the participants' previous understanding tests. The Content-Based Filtering method that is applied to the recommendation process of learning suggestions can be implemented well, using a Likert scale as a weight calculation. Evidenced by the small average value of the Mean Absolute Error (MAE), which is 0.21 from the experiments that have been carried out.

Keyword : Learning Analytics, Content-Based Filtering, Recommendation System, Hadith, Mean Absolute Error