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Explainable feature selection in Self-Service BI with Ontology-based Recommender Systems

Une sélection explicable des caractéristiques en Business Intelligence "self-service" à l'aide de systèmes de recommandation basés sur les ontologies

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Recommendation Systems (RS) aim to help people deal with the information overload they face by recommending relevant items[4]. A challenge faced by traditional RS is to gain the trust of users[5]. Ontology-based RS (OBRS) increase the confidence of their users by providing explainable recommendations through semantic modeling of domain knowledge and reasoning methods used [2].

This contribution focuses on Self-Service Business Intelligence (SSBI) tools and the challenges that business users face when using them. SSBI platforms are business data-driven decision support systems with the particularity to allow business people to transform data into information to create reports and dashboards without the help of IT experts[1]. However, despite the ambition to allow autonomous use by business users, these non-IT experts still face several problems when using these tools[3].

In this paper, we explore the OBRS potential to address the challenges faced by business people in SSBI. These systems can provide high quality recommendations by mapping the business users' needs to the available SSBI functionalities and providing explanations. Additional Key Words and Phrases: Recommendation Systems, Ontology, Self-Service Business Intelligence, Business User.

Les systèmes de recommandation (SR) sont nés pour aider les gens à faire face à la surcharge d'informations à laquelle ils sont confrontés en leur recommandant des éléments pertinents [4]. Mais ces SR ont des difficultés à gagner la confiance de leurs utilisateurs [5]. Les SR basés sur les Ontologies (SRBO) augmentent cette confiance en fournissant des recommandations explicables via la modélisation sémantique des connaissances du domaine et les méthodes de raisonnement utilisées [2].

Cette contribution se concentre sur les outils de Business Intelligence "self-service" (BISS) et sur les challenges des utilisateurs business lorsqu'ils les utilisent. Les plateformes BISS sont des systèmes d'aide à la décision basés sur les données. Ils ont la particularité de permettre aux personnes du monde business de transformer les données en informations et de créer des rapports, tableaux de bord sans l'aide des experts en IT [1]. Toutefois, malgré l'ambition de permettre un usage autonome par les utilisateurs métiers, ces non-experts en IT sont néanmoins confrontés à plusieurs problèmes lors de l'utilisation de ces outils [3].

Dans ce travail, nous explorons le potentiel de SRBO pour résoudre les problèmes des utilisateurs business en BISS. Ces systèmes peuvent fournir des recommandations de haute qualité en mappant les besoins des utilisateurs business aux fonctionnalités BISS et en fournissant des explications.

Mots-clés additionnels : Systèmes de recommandation, Ontologie, Business Intelligence "self-service", utilisateur business.

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