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RESEARCH-ARTICLE FREE

Multimedia recommender systems

Yashar Deldjoo, Markus Schedl, Balázs Hidasi, Peter Knees

RecSys '18: Proceedings of the 12th ACM Conference on Recommender Systems • September 2018, pp 537–538 • https://doi.org/10.1145/3240323.3241620

This tutorial introduces *multimedia recommender systems* (MMRS), in particular, recommender systems that leverage multimedia content to recommend different media types. In contrast to the still most frequently adopted collaborative filtering approaches, ...

Highlights

Abstract
This tutorial introduces multimedia recommender systems (MMRS), in particular, recommender systems that leverage multimedia content to recommend different media types.
The target recommendation domains of the tutorial are movies, music and images. We present state-of-the-art approaches for multimedia feature extraction (text, audio, visual), including deep learning methods, and recommendation approaches tailored to the multimedia domain.

Full Text
This tutorial therefore aims at bridging the gap between the multimedia, machine learning, and recommender systems communities.
His research interests include recommender systems and personalization, multimedia, and machine learning.
His main research areas are deep learning for recommender systems, matrix and tensor factorization, session-based and context- aware recommendations.

Subject
RecSys: ACM Conference On Recommender Systems
RecSys: Recommender Systems

5 228

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EXTENDED-ABSTRACT FREE

Context-aware Preference Modeling with Factorization

Balázs Hidasi

RecSys '15: Proceedings of the 9th ACM Conference on Recommender Systems • September 2015, pp 371
–374 • https://doi.org/10.1145/2792838.2796543

This work focuses on solving the context-aware implicit feedback based recommendation task with factorization and is heavily influenced by the practical considerations. I propose context-aware factorization algorithms that can efficiently work on ...

Highlights

Abstract
This work focuses on solving the context- aware implicit feedback based recommendation task with factorization and is heavily influenced by the practical considerations. I propose context- aware factorization algorithms that can efficiently work on implicit data. I generalize these algorithms and propose the General Factorization Framework (GFF) in which experimentation with novel preference models is possible. This practically useful, yet neglected feature results in models that are more appropriate for context-aware recommendations than the ones used by the state-of-the-art.

Full Text
Context- aware Preference Modeling with Factorization Balázs Hidasi balazs.hidasi@gravityrd.com Gravity Research and Development Inc. INTRODUCTION Recommender systems are more and more widely used in e-commerce and on multimedia sites.
Context- aware recommender systems (CARS) consider additional information (termed context) besides user-item interactions.

Keywords
recommender systems

Subject
RecSys: ACM Conference On Recommender Systems
RecSys: Recommender Systems
Machine learning

0 295

IUI: Intelligent User Interfaces (3)

MM: International Multimedia Conference (3)

More (15)

Publication Date

2015 2020

Past 2 years

Past year

RESEARCH-ARTICLE FREE

Adversarial tensor factorization for context-aware recommendation

Huiyuan Chen, Jing Li

RecSys '19: Proceedings of the 13th ACM Conference on Recommender Systems • September 2019, pp 363–367 • https://doi.org/10.1145/3298689.3346987

Contextual factors such as time, location, or tag, can affect user preferences for a particular item. Context-aware recommendations are thus critical to improve both quality and explainability of recommender systems, compared to traditional ...

Highlights

Abstract
Context- aware recommendations are thus critical to improve both quality and explainability of recommender systems, compared to traditional recommendations that are solely based on user-item interactions. However, few work has focused on the robustness of a context- aware recommender system. Improving the robustness of a tensor-based model is challenging due to the sparsity of the observed tensor and the multi-linear nature of tensor factorization. In this paper, we propose ATF, a model that combines tensor factorization and adversarial learning for context- aware recommendations.

Full Text
Context- aware recommendations are thus critical to improve both quality and explainability of recommender systems, compared to traditional recommendations that are solely based on user-item interactions. Adversarial Tensor Factorization for Context- aware Recommendation. In Thirteenth ACM Conference on Recommender Systems (RecSys '19), September 16-20, 2019, Copenhagen, Denmark.
RecSys '19, September 16-20, 2019, Copenhagen, Denmark 363 RecSys '19, September 16-20, 2019, Copenhagen, Denmark Huiyuan Chen and Jing Li 364 Adversarial Tensor Factorization for Context- aware Recommendation RecSys '19, September 16-20, 2019, Copenhagen, Denmark 365 RecSys '19, September 16-20, 2019, Copenhagen, Denmark Huiyuan Chen and Jing Li 366 Adversarial Tensor Factorization for Context- aware Recommendation RecSys '19, September 16-20, 2019, Copenhagen, Denmark 367

Subject
RecSys: ACM Conference On Recommender Systems
RecSys: Recommender Systems
Machine learning

1 361

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RESEARCH-ARTICLE FREE

Metalearning for Context-aware Filtering: Selection of Tensor Factorization Algorithms

Tiago Cunha, Carlos Soares, André C.P.L.F. Carvalho

RecSys '17: Proceedings of the Eleventh ACM Conference on Recommender Systems • August 2017, pp 14–22 • https://doi.org/10.1145/3109859.3109899

This work addresses the problem of selecting Tensor Factorization algorithms for the Context-aware Filtering recommendation task using a metalearning approach. The most important challenge of applying metalearning on new problems is the development of ...

Highlights

Abstract
This work addresses the problem of selecting Tensor Factorization algorithms for the Context- aware Filtering recommendation task using a metalearning approach.
We propose an extensive and exhaustive set of metafeatures to characterize Context- aware Filtering recommendation task.

Full Text
Metalearning for Context- aware Filtering: Selection of Tensor Factorization Algorithms Tiago Cunha Faculdade de Engenharia da Universidade do Porto Rua Dr.
CCS CONCEPTS •Information systems → Recommender systems; Data mining; •Computing methodologies → Machine learning; KEYWORDS Context- aware Filtering, Tensor Factorization, Metalearning, Algorithm Selection, Label Ranking 1 INTRODUCTION Recommender Systems (RSs) deal with the information overload problem by recommending potentially interesting items to users [3]. Several recommendation strategies exist, including Collaborative Filtering (CF) and Context aware Filtering (CAF).

Subject
RecSys: ACM Conference On Recommender Systems
RecSys: Recommender Systems
Machine learning

3 519

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RESEARCH-ARTICLE FREE

Towards the next generation of multi-criteria recommender systems

Zhe Li

RecSys '18: Proceedings of the 12th ACM Conference on Recommender Systems • September 2018, pp 553
–557 • https://doi.org/10.1145/3240323.3240326

This paper presents the motivation, concepts, ideas and research questions underlying a PhD research project in the domain of recommender systems, and more specifically on multi-criteria recommendation. While we build on the existing work in this ...

Highlights

Abstract
This paper presents the motivation, concepts, ideas and research questions underlying a PhD research project in the domain of recommender systems, and more specifically on multi-criteria recommendation.

Full Text
Towards the Next Generation of Multi-Criteria Recommender Systems. In Twelfth ACM Conference on Recommender Systems (RecSys '18), October 2-7, 2018, Vancouver, BC, Canada.
To generalize context inclusion and model higher-order interactions among users, items and context, Factorization Machines (FM) [30] were proposed and widely applied in context- aware recommendations [34, 44].
Julián Urbano for their supervision and valuable feedback on this paper. 553 RecSys '18, October 2-7, 2018, Vancouver, BC, Canada Zhe Li 554 Towards the Next Generation of Multi-Criteria Recommender Systems RecSys '18, October 2-7, 2018, Vancouver, BC, Canada 555 RecSys '18, October 2-7, 2018, Vancouver, BC, Canada Zhe Li 556 Towards the Next Generation of Multi-Criteria Recommender Systems RecSys '18, October 2-7, 2018, Vancouver, BC, Canada 557

Keywords
recommender systems

Subject
RecSys: ACM Conference On Recommender Systems
RecSys: Recommender Systems
Recommender systems

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RESEARCH-ARTICLE FREE

Convolutional Matrix Factorization for Document Context-Aware Recommendation

Donghyun Kim, Chanyoung Park, Jinoh Oh, Sungyoung Lee, Hwanjo Yu

RecSys '16: Proceedings of the 10th ACM Conference on Recommender Systems • September 2016, pp 233–240 • https://doi.org/10.1145/2959100.2959165

Sparseness of user-to-item rating data is one of the major factors that deteriorate the quality of recommender system. To handle the sparsity problem, several recommendation techniques have been proposed that additionally consider auxiliary information ...

Highlights

Abstract
This paper proposes a novel context- aware recommendation model, convolutional matrix factorization (ConvMF) that integrates convolutional neural network (CNN) into probabilistic matrix factorization (PMF).

Full Text
This paper proposes a novel context- aware recommendation model, convolutional matrix factorization (ConvMF) that integrates convolutional neural network (CNN) into probabilistic matrix factorization (PMF).
To address the aforementioned issue, we utilize convolutional neural network (CNN), which is the state-of-the-art machine learning methodology that shows high performance for various domains such as computer vision [13], natural language processing (NLP) [2, 10, 11], and information retrieval [4, 21].
ACKNOWLEDGMENTS This research was supported by Next-Generation Information Computing Development Program through the National Research Foundation of Korea(NRF) funded by the Ministry of Education, Science and Technology (No. 2012M3C4A7033344) and the ICT R&D program of MSIP/IITP [B0101-15-0307, Basic Software Research in Human-level Lifelong Machine Learning (Machine Learning Center)] and the Industrial Core Technology Development Program (10049079, Development of Mining core technology exploiting personal big data) funded by the Ministry of Trade, Industry and Energy (MOTIE, Korea)

Subject
RecSys: ACM Conference On Recommender Systems
RecSys: Recommender Systems
Machine learning

133 4,530

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RESEARCH-ARTICLE FREE

Recommender Systems for Personalized Gamification

Gustavo F. Tondello, Rita Orji, Lennart E. Nacke

UMAP '17: Adjunct Publication of the 25th Conference on User Modeling, Adaptation and Personalization • July 2017, pp 425 –430 • https://doi.org/10.1145/3099023.3099114

Gamification has been used in a variety of application domains to promote behaviour change. Nevertheless, the mechanisms behind it are still not fully understood. Recent empirical results have shown that personalized approaches can potentially achieve ...

Highlights

Abstract
To address this gap, we present a novel general framework for personalized gameful applications using recommender systems (i.e., software tools and technologies to recommend suggestions to users that they might enjoy).

Full Text
Recommender systems have been o~en used to help users select products in e-commerce sites, movies, or music, just to name a few common applications.
A recommender algorithm will be less likely to provide good recommendations for new users (or new items) without enough initial ratings. 3.6.3 Context- aware recommender.
~e decision to use a context- aware recommender will depend on the application domain and our existing knowledge about contextual information.

Keywords
recommender systems

Subject
Recommender systems

11 648

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RESEARCH-ARTICLE FREE

Learning Global Term Weights for Content-based Recommender Systems

Yupeng Gu, Bo Zhao, David Hardtke, Yizhou Sun

WWW '16: Proceedings of the 25th International Conference on World Wide Web • April 2016, pp 391–400 • https://doi.org/10.1145/2872427.2883069

Recommender systems typically leverage two types of signals to effectively recommend items to users: user activities and content matching between user and item profiles, and recommendation models in literature are usually categorized into collaborative ...

Highlights

Abstract
Recommender systems typically leverage two types of signals to effectively recommend items to users: user activities and content matching between user and item profiles, and recommendation models in literature are usually categorized into collaborative filtering models, content-based models and hybrid models.
Our method is efficient to handle large-scale training data generated by production recommender systems.

Full Text
Keywords Term weighting, recommender systems, feature selection 1. INTRODUCTION Recommendations are ubiquitous on the web in all kinds of areas, including product recommendation, movie/ music recommendation, job recommendation, etc.
For example, if we observe users who list machine learning as their skills are more likely to apply for machine learning jobs, we can infer " machine learning" is a more important term.
" machine learning"), but if we have more machine learning jobs than government-related jobs in the job database, " machine learning" will be associated with a lower IDF score than "federal government".

Keywords
recommender systems

Subject
Recommender systems

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RESEARCH-ARTICLE FREE

Efficient Non-Sampling Factorization Machines for Optimal Context-Aware Recommendation

Chong Chen, Min Zhang, Weizhi Ma, Yiqun Liu, Shaoping Ma

WWW '20: Proceedings of The Web Conference 2020 • April 2020, pp 2400 −2410 • https://doi.org/10.1145/3366423.3380303

To provide more accurate recommendation, it is a trending topic to go beyond modeling user-item interactions and take context features into account. Factorization Machines (FM) with negative sampling is a popular solution for context-aware ...

Highlights

Abstract
Factorization Machines (FM) with negative sampling is a popular solution for context- aware recommendation.
Due to the dramatic fluctuation of sampling, it is reasonable to argue that these sampling-based FM methods are still suboptimal for context- aware recommendation. In this paper, we propose to learn FM without sampling for ranking tasks that helps context- aware recommendation particularly.

Full Text
Context- aware recommender systems exploit contextual information such as user demographics, item attributes, and time/location of the current transaction to personalize item recommendation for users [2, 35, 46].
Thus our mini-batch based optimization methods can be naturally implemented in modern machine learning tools like Tensorflow and PyTorch.
Generally, ENSFM outperforms the best context- aware baseline CFM with a wide range of c0 on the three datasets (e.g., c0 between 0.1 to 1 on Movielens). 5 RELATED WORK 5.1 Context- aware Recommendation
Context- aware recommendation aims to leverage rich context information such as user demographics, item attributes, and time/location of the current transaction to improve the performance of recommender systems [35, 46].

Keywords
context-aware

0 57

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RESEARCH-ARTICLE FREE

Semantically-enhanced advertisement recommender systems in social networks

Ali Pazahr, J. Javier Samper Zapater, Francisco García Sánchez, Carmen Botella, + 1

iiWAS '16: Proceedings of the 18th International Conference on Information Integration and Web-based Applications and Services • November 2016, pp 179 –189 • https://doi.org/10.1145/3011141.3011489

Providing recommendations on social systems has been in the spotlight of both academics and industry for some time already. Social network giants like Facebook, LinkedIn, Myspace, etc., are eager to find the silver bullet of recommendation. These ...

Highlights

Full Text

In Section 2 current advertisement recommender systems are reviewed. The methodology proposed in this work is described in Section 3.
This motivation could help to design and develop a novel framework for advertisement recommender systems in social networks.
It is calculated using irank, trank, users' similarity, and a fixed ratio depending to the recommendation techniques which is 5 for demographic and 6 for context- aware recommender method.

Keywords
recommender systems

Subject
Machine learning
Machine learning approaches

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RESEARCH-ARTICLE FREE

CHAMELEON: a deep learning meta-architecture for news recommender systems

Gabriel de Souza Pereira Moreira

RecSys '18: Proceedings of the 12th ACM Conference on Recommender Systems • September 2018, pp 578
–583 • https://doi.org/10.1145/3240323.3240331

News recommender systems are aimed to personalize users experiences and help them discover relevant articles from a large and dynamic search space. Therefore, news domain is a challenging scenario for recommendations, due to its sparse user profiling, ...

Highlights

Abstract
News recommender systems are aimed to personalize users experiences and help them discover relevant articles from a large and dynamic search space. Therefore, it became a mainstream approach in Recommender Systems research only since 2016. The main objective of this research is the investigation, design, implementation and evaluation of a Meta-Architecture for personalized news recommendations using deep neural networks.

Full Text
Recommender systems have been researched and applied in online services from different domains, like music [10] [60] [64] (e.g., Spotify, Pandora, Last.fm), videos (e.g.
Online news recommendations have also been addressed by researchers in the last years, either using Content-Based Filtering [36] [11] [49] [30] [45], Collaborative Filtering [13] [15], and Hybrid approaches [12] [39] [36] [48] [38] [37] [59] [18]. 1.2 Deep Learning on Recommender Systems Deep Learning (DL) [27] [28] [8] [7] is a hot area in machine learning communities. The uptake of deep learning by RS community was relatively slow, as the topic became popular only in 2016, with the first Deep Learning for Recommender Systems workshop at the ACM RecSys 2016 [25].

Keywords
recommender systems

Subject
RecSys: ACM Conference On Recommender Systems
RecSys: Recommender Systems
Machine learning

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RESEARCH-ARTICLE FREE

Towards a theoretical approach for analysing music recommender systems as sociotechnical cultural intermediaries

Jack Webster, Nicholas Gibbins, Susan Halford, Brian J. Hracs

WebSci '16: Proceedings of the 8th ACM Conference on Web Science • May 2016, pp 137–145 • https://doi.org/10.1145/2908131.2908148

As the rate and scale of Web-related digital data accumulation continue to outstrip all expectations so too we come to depend increasingly on a variety of technical tools to interrogate these data and to render them as an intelligible source of ...

Highlights

Abstract
This paper aims to bridge these two debates working through the case of music recommender systems. Whilst not conventionally regarded as 'big data,' the enormous volume, variety and velocity of digital music available on the Web has seen the growth of recommender systems, which are increasingly embedded in our everyday music consumption through their attempts to help us identify the music we might want to consume. Combining Bourdieu's concept of cultural intermediaries with Actor-Network Theory's insistence on the relational ontology of human and non-human actors, we draw on empirical evidence from the computational and social science literature on recommender systems to argue that music recommender systems should be approached as a new form of sociotechnical cultural intermediary.

Full Text
For example by tracing the associations formed and the contributions made by different human and non-human actors, such as the decisions made by designers and engineers, the statistical models and the machine learning classification approaches, and the information filtering algorithms used, we can explain how the cultural intermediation performed by music recommender systems is more `organisational' and in what specific ways. Alternatively, we could examine how music recommender systems are shaping the role of music in everyday life [13].
This is of particular relevance given digital music services' innovation in the use of context- aware recommendation and the curation of content around specific moods and activities, such as exercising, studying and entertaining.

Keywords
recommender systems

1 238

Journals Magazines Proceedings Books SIGs Conferences People Search ACM Digital

ABSTRACT FREE

The New Challenges when Modeling Context through Diversity over Time in Recommender Systems

Amaury L'Huillier, Sylvain Castagnos, Anne Boyer

UMAP '16: Proceedings of the 2016 Conference on User Modeling Adaptation and Personalization • July 2016, pp 341
–344 • https://doi.org/10.1145/2930238.2930370

The main goal of recommender systems is to help users to filter all the information available by suggesting items they may like without they had to find them by themselves. Although the rating prediction is a pretty well controlled topic, being able to ...

Highlights

Abstract
The main goal of recommender systems is to help users to filter all the information available by suggesting items they may like without they had to find them by themselves.

Full Text
The New Challenges when Modeling Context through Diversity over Time in Recommender Systems Amaury L'Huillier* KIWI Team, LORIA – University of Lorraine Campus Scientifique, B.P. 239 54506 Vandœuvre – France amaury.lhuillier@loria.fr The main goal of recommender systems is to help users to filter all the information available by suggesting items they may like without they had to find them by themselves.
The goal of a context- aware recommender system (CARS) is to adapt the recommendation to the current characteristics of the user situation, also called his context.
As we currently do not know what is the best way to characterise an implicit context, we aim at developing an automatic machine learning model able to detect and extract the representative characteristics of each implicit context.

Subject
Recommender systems

0 104

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SECTION

Session details: Main Track - Prediction Methods and Recommender Systems

Sean W. M. Siqueira, Sergio T. Carvalho

SBSI 2015: Proceedings of the annual conference on Brazilian Symposium on Information Systems: Information Systems: A Computer Socio-Technical Perspective - Volume 1 • May 2015

Highlights

Full Text

Machine Learning, 45(1):5-32, 2001. [3] N. J. Bryan and G. Wang. Musical influence network analysis and rank of sample-based music.
Improving augmented reality using recommender systems. In Proceedings of the 7th ACM Conference on Recommender Systems, RecSys '13, pages 173-176, New York, NY, USA, 2013.
Context- aware review helpfulness rating prediction. In Proceedings of the 7th ACM conference on Recommender systems, page 1-8.

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RESEARCH-ARTICLE FREE

Leveraging Behavioral Heterogeneity Across Markets for Cross-Market Training of Recommender Systems

Kevin Roitero, Ben Carterrete, Rishabh Mehrotra, Mounia Lalmas

WWW '20: Companion Proceedings of the Web Conference 2020 • April 2020, pp 694–702 • https://doi.org/10.1145/3366424.3384362

Modern recommender systems are optimised to deliver personalised recommendations to millions of users spread across different geographic regions exhibiting various forms of heterogeneity, including behavioural-, content- and trend specific ...

Highlights

Abstract
Modern recommender systems are optimised to deliver personalised recommendations to millions of users spread across different geographic regions exhibiting various forms of heterogeneity, including behavioural-, content- and trend specific heterogeneity.
In this work, we focus on the specific case of music recommendation across 21 different markets, and consider the trade-off between developing global model versus market specific models.

Full Text
Leveraging Behavioral Heterogeneity Across Markets for Cross-Market Training of Recommender Systems.
Works reported in [1, 2, 6, 18, 30] discuss context- aware recommender systems and how to incorporate and model contextual information in the design of a recommender system.
Based on these outcomes, we turn now to an investigation of the market effect on training machine learning models for music recommendation. 4 CROSS-MARKET TRAINING We want to understand the actual effect the market(s) selected for training has on the machine learning model we use to provide recommendations.

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RESEARCH-ARTICLE FREE

A Course on Applied AI and Data Science: Recommender Systems

Yong Zheng

SIGITE '19: Proceedings of the 20th Annual SIG Conference on Information Technology Education • September 2019, pp 43–48 • https://doi.org/10.1145/3349266.3351405

Artificial intelligence (AI) and data science have become one of the most popular curricula in the computing educations. Plenty of theories, optimizations and math are involved in these courses, which results in a higher degree of difficulty for ...

Highlights

Abstract

This paper describes a course that focuses on the topic of recommender systems which is in high demand in both academia and industries.

Full Text

For example, the ACM Conference on Recommender Systems (ACM RecSys) is the ofcial international conference for research on recommender systems.
After midterm exam, diferent novel types of the recommender systems will be introduced and discussed, including context- aware RS, group RS, multi-criteria RS, cross-domain RS and human factor based RS.
For example, two students claimed that they were more interested in RS which are applied in diferent domains (e.g., music, movies, tourism, etc) than the introduction of diferent type of new RS (e.g., context- aware RS, group RS, etc).

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RESEARCH-ARTICLE FREE

Auto-Encoding User Ratings via Knowledge Graphs in Recommendation Scenarios

Vito Bellini, Vito Walter Anelli, Tommaso Di Noia, Eugenio Di Sciascio

DLRS 2017: Proceedings of the 2nd Workshop on Deep Learning for Recommender Systems • August 2017, pp 60–66 • https://doi.org/10.1145/3125486.3125496

In the last decade, driven also by the availability of an unprecedented computational power and storage capabilities in cloud environments, we assisted to the proliferation of new algorithms, methods, and approaches in two areas of artificial ...

Highlights

Abstract
In the last decade, driven also by the availability of an unprecedented computational power and storage capabilities in cloud environments, we assisted to the proliferation of new algorithms, methods, and approaches in two areas of artificial intelligence: knowledge representation and machine learning.

Full Text
KEYWORDS Recommender Systems, Deep Learning, Autoencoders, Knowledge graphs, Linked Open Data, DBpedia ACM Reference Format: Vito Bellini, Vito Walter Anelli, Tommaso Di Noia, and Eugenio Di Sciascio. 2017.
Recently, among the ideal candidates to get side information to be injected in recommender systems we surely find knowledge graphs1.
Mapping user and items to a latent space, as done in [6] seems to be a good approach to address the recommendation quality in content-based recommender systems.

Keywords
recommender systems

Subject
DLRS: Deep Learning for Recommender Systems
Machine learning
Machine learning approaches

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RESEARCH-ARTICLE FREE

Parallel Recurrent Neural Network Architectures for Feature-rich Session-based Recommendations

Balázs Hidasi, Massimo Quadrana, Alexandros Karatzoglou, Domonkos Tikk

RecSys '16: Proceedings of the 10th ACM Conference on Recommender Systems • September 2016, pp 241–248 • https://doi.org/10.1145/2959100.2959167

Real-life recommender systems often face the daunting task of providing recommendations based only on the clicks of a user session. Methods that rely on user profiles -- such as matrix factorization -- perform very poorly in this setting, thus item-to-...

Highlights

Abstract
Real-life recommender systems often face the daunting task of providing recommendations based only on the clicks of a user session.

Full Text
Keywords deep learning; recurrent neural networks; gated recurrent units; recommender systems; training strategies 1.
Mixing different aspects of the session to compute item scores is analogous to context- aware preference modeling.
The main difference to the context- aware task is that all of our representations are session representations and not (mostly) independent dimensions.

Keywords
recommender systems

Subject
RecSys: ACM Conference On Recommender Systems
RecSys: Recommender Systems
Machine learning

81 1,781

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RESEARCH-ARTICLE FREE

A Dataset for Inferring Contextual Preferences of Users Watching TV

Miklas S. Kristoffersen, Sven E. Shepstone, Zheng-Hua Tan

UMAP '18: Proceedings of the 26th Conference on User Modeling, Adaptation and Personalization • July 2018, pp 367
–368 • https://doi.org/10.1145/3209219.3209263

Studies have shown that contextual settings play an important role in users' decision processes of what to consume, but data supporting the investigation of context-aware recommender systems are scarce. In this paper we present a TV consumption dataset ...

Highlights

Abstract
Studies have shown that contextual settings play an important role in users' decision processes of what to consume, but data supporting the investigation of context- aware recommender systems are scarce.

Full Text
Shepstone Bang & Olufsen A/S Struer, Denmark ssh@bang-olufsen.dk Zheng-Hua Tan Aalborg University Aalborg, Denmark Studies have shown that contextual settings play an important role in users' decision processes of what to consume, but data supporting the investigation of context- aware recommender systems are scarce.
CCS CONCEPTS • Information systems → Recommender systems; • Humancentered computing → User studies; KEYWORDS Context-Awareness; Recommender Systems; Machine Learning; Experience Sampling; Dataset; Television.
Also, temporal context has constituted a significant part of development and evaluation within context- aware recommender systems (CARS), since timestamps are often logged together with events, e.g. ratings, which allows for a simple way to reformulate challenges designed for traditional recommender systems into the CARS domain by using timestamps as temporal context.

Keywords
machine learning
recommender systems

Subject
Recommender systems

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RESEARCH-ARTICLE OPEN ACCESS

The Adressa dataset for news recommendation

Jon Atle Gulla, Lemei Zhang, Peng Liu, Özlem Özgöbek, Xiaomeng Su

WI '17: Proceedings of the International Conference on Web Intelligence • August 2017, pp 1042–1048 • https://doi.org/10.1145/3106426.3109436

Datasets for recommender systems are few and often inadequate for the contextualized nature of news recommendation. News recommender systems are both time- and location-dependent, make use of implicit signals, and often include both collaborative and ...

Highlights

Abstract
Datasets for recommender systems are few and often inadequate for the contextualized nature of news recommendation. News recommender systems are both time- and location-dependent, make use of implicit signals, and often include both collaborative and content-based components.
We explain the structure of the dataset and discuss how it can be used in advanced news recommender systems.

Full Text
CCS CONCEPTS • Information systems → World Wide Web; Web searching and information discovery; Web mining• Computing methodologies → Machine learning KEYWORDS Datasets, recommender systems, machine learning ACM Reference format: J.
Computational linguistics, machine learning and Big Data architectures are central in this work. The projects builds on the experiences from an earlier prototype called the SmartMedia mobile news recommender systems [14]. There are unfortunately very few datasets available for advanced hybrid recommender systems or context- aware recommender systems.

Keywords
machine learning
recommender systems

Subject
Machine learning

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1 2

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