

Computer
E-Learning
Educational
Environment
Technologies
Evaluation
International
Issue
Okamoto
Systems
Springer
Alexandra
Authoring
A.Cristea
DOI
Advanced
Conference
Hendrix
Distance
Workshop
Intelligent
T.Okamoto
Adaptive
CA
AH
Hypermedia
System
Adaptable
Adaptation
Education
Web-Based
Journal
Stewart
Neural
Learning
Teaching
Knowledge
Netherlands
Best
Special
A.I
Model
Bra
Los
Development
Ghali
Social
Proceedings
impact
Paper
Semantic
Japan
factor
IEEE
Technology
Information
Toshio
Alamitos
Support
Design
Study
Shi
Report
New
ISSN
Science
Towards
European
ACM
Kinshuk
AACE
Scientific
th
World
Vol
Eds
Web
July
Networks
LNCS
Sciences
ICALT
Society
Personalized
Thomson
De
based
USA
here
June
Computing
Press
WWW
MOT
September
Issues
Award
A3H



Supporting Immersion in Learning

Alexandra I. Cristea

IAS: Intelligent and Adaptive Systems Group



- DCS

- 2nd in UK at REF 2014
- Leading Alan Turing Institute of Data Science

▲ Uni [Filter unis]	▲ Subject	▼ Average UCAS points achieved	▼ % of employed with grad job	
<input type="checkbox"/>	UNIVERSITY OF CAMBRIDGE	Computer Science	580	100%
<input checked="" type="checkbox"/>	UNIVERSITY OF WARWICK	Computer Science	480	100%
<input type="checkbox"/>	UNIVERSITY OF YORK	Computer Science	460	100%
<input type="checkbox"/>	UNIVERSITY OF BATH	Computer Science	440	100%
<input type="checkbox"/>	DURHAM UNIVERSITY	Computer Science	440	100%
<input type="checkbox"/>	IMPERIAL COLLEGE, LONDON	Computer Science	510	98%
<input type="checkbox"/>	UNIVERSITY OF BRISTOL	Computer Science	480	95%+
<input type="checkbox"/>	UNIVERSITY OF SOUTHAMPTON	Computer Science	450	95%
<input type="checkbox"/>	UNIVERSITY OF SHEFFIELD	Computer Science	390	95%
<input type="checkbox"/>	UNIVERSITY OF READING	Computer Science	350	95%

11 Computer science and Informatics

1	3.15	UCL	71	61	3.57
2	2.75	Warwick	24	56	3.53
3	3.20	Imperial	49	56	3.50
4	3.15	Manchester	45	48	3.42
5	2.75	Sheffield	31	47	3.39
6	3.35	Cambridge	55	48	3.36
=7	3.15	Oxford	74	53	3.34
=7	2.95	York	35	44	3.34
9	2.90	Newcastle	28	46	3.33
10	3.05	Liverpool	24	35	3.32
11	3.00	Queen Mary	31	39	3.29
12	3.05	Lancaster	33	36	3.26
13	3.10	Nottingham	43	37	3.24
14	2.70	King's College London	46	32	3.20
15	3.20	Edinburgh	95	40	3.19



IAS

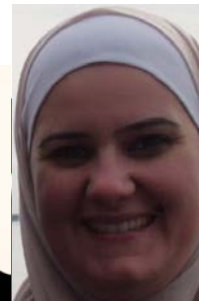
- One of 4 research groups in DCS
- 8 staff
- 9 affiliated staff
- ~ 20+ students
- Research directions:
 - Personalisation & adaptation
 - Educational technology
 - Empirical modelling

Current & recent funded projects

- [EU ERASMUS+ Construit](#) ('14-'17)
 - Making construals as a new digital skill for creating interactive open educational resources
- Brazil Partnership Fund ('15-'16)
 - with MeuTutor, learner analytics of students studying for entrance exams
- [Assistive Technologies](#) ('12-'14)
 - Engaging young people w. 3D printing technologies and CAD software; [BBC website](#) + Wall Street journal
- [EU FP7 Blogforever project](#) ('11 -'13)
 - harvest, preserve, manage and reuse blog content
- See [my website](#) for previous ones

My Current Research Students

- Election prediction, sentiment analysis & social net mining:
 - [Adam Tsakalidis](#) (from Greece; since October 2014) (Twitter, Blogs)
 - [Zachary Roberts](#) (from UK; since October 2014) (Wikipedia)
 - [Yiwei Zhou](#) (from China; since April 2014) (Wikipedia, Twitter)
- Emotions, personalisation needs & privacy concerns in health websites:
 - [Suncica Hadzidedic](#) (from Bosnia-Herzegovina; since October 2013)
- Imitation Learning:
 - [Alexandros Gkiokas](#) (from Greece; since October 2012)
- Adaptive Advertising:
 - [Alaa Qaffas](#) (from Saudi-Arabia; since June 2012) (light-weight)
 - [Dana Al Qudah](#) (from Jordan; since October 2011) (stand-alone)
- Personalised & Social e-Learning, Group Formation, Visualisation, Gamification:
 - [Afaf Alamri](#) (from Saudi-Arabia; since May 2012) (group formation)
 - [Lei Shi](#) (from China; October 2011 - December 2014)
- Adaptation Languages and Authoring Tools:
 - [Javed Khan](#) (part-time) (from UK; since August 2010)



CES Seminar, 04-05-2015

Recommended Reading

- Election prediction : – predicting the future
 - Adam Tsakalidis, Symeon Papadopoulos, Alexandra I. Cristea, and Yiannis Kompatsiaris, Predicting the EU 2014 Election Results in Multiple Countries Using Twitter, IEEE Transactions on Intelligent Systems, to appear 2015
- Personalised, Social e-learning: – immersing learners
 - H. Ashman, T. Brailsford, A. I. Cristea, Q. Z. Sheng, C. Stewart, E. Toms and V. Wade · “ [The Ethical and Social Implications of Personalisation Technologies for e-Learning \(local copy\)](#) “ International Journal of Information Management (IJIM), Special Issue on IS Ethics: Past, Present and Future at Information & Management, Elsevier, 51(6), September 2014, p. 819–832, 2014
 - Shi, L., Cristea, A. I., Awan, M., Stewart, C., Hendrix, M., “ [Towards Understanding Learning Behavior Patterns in Social Adaptive Personalized E-Learning Systems.](#)”, In Proceedings of the 19th Americas Conference on Information Systems (AMCIS 2013), pages 1 – 10, Chicago, Illinois, USA, August 15 – 17, 2013. Association for Information Systems, 2013.
 - A. I. Cristea and F. Ghali, “ Towards Adaptation in E-Learning 2.0 “([pdf](#)) , The New Review of Hypermedia and Multimedia, Vol. 17, No. 2 (April 2011), pp. 199–238, Taylor & Francis, Inc. Bristol, PA, USA, DOI 10.1080/13614568.2010.54128, 2011
- Social Net mining: – predicting the future
 - George Gkotsis, Karen Stepanyan, Alexandra I. Cristea, Mike Joy , “ [Entropy-based automated wrapper generation for weblog data extraction](#) “([pdf](#)), The World Wide Web Journal, Springer US, Vol 16, Iss. tbc, November 2013

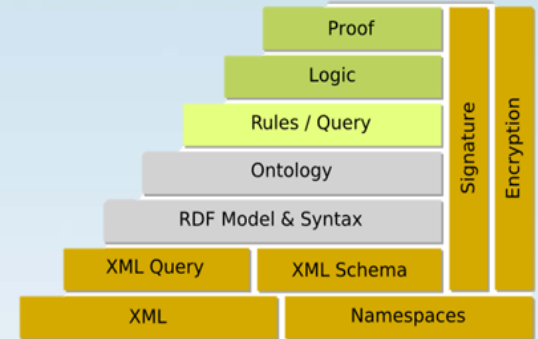
Recommended Reading

- Adaptive Advertising: – liking ads
 - Dana A. Al Qudah, Alexandra I. Cristea “ [MyAds – A proposed adaptive social online advertising framework \(local copy\)](#) “ International Journal JOEBM – Journal of Economics, Business and Management. Vol.1, No.4, P.P 401–406 ISSN: 2301–3567, DOI: 10.7763/JOEBM 2013
- Adaptation languages and Authoring: – flexible, easy to create adaptation
 - Stash, N., Cristea, A.I., and De Bra, P. , “[Adaptation languages as vehicles of explicit intelligence in Adaptive Hypermedia](#)“ , In International Journal on Continuing Engineering Education and Life–Long Learning, vol. 17, nr 4/5, pp. 319–336, InderScience, 2007. DOI:10.1504/IJCEELL.2007.015045, 2007.
 - A. I. Cristea and C. Stewart, “[Automatic Authoring of Adaptive Educational Hypermedia](#) (copy [here](#)) “, book chapter II in “Web–based Intelligent E–Learning Systems: Technologies and Applications”, ZongMin Ma (Ed.), Information Science Publishing (IDEA group); pp. 24–55, Hard Cover (ISBN: 1–59140–729–X), Perpetual E–Access (ISBN: 1–59140–731–1),2006
 - J. Khan, A. I. Cristea and C. Stewart, 2011 “ [Adaptive Authoring of Adaptive Hypermedia: Towards, Role–based, Adaptive Authoring.](#) ”, In Proceedings Computers and Advanced Technology in Education – 2011, 734–042, ACTA Press, DOI: 10.2316/P.2011.734–042

SOCIAL WEB



SEMANTIC WEB



PERSONALISATION / CUSTOMISATION



EDUCATION +HEALTH +COMMERCE

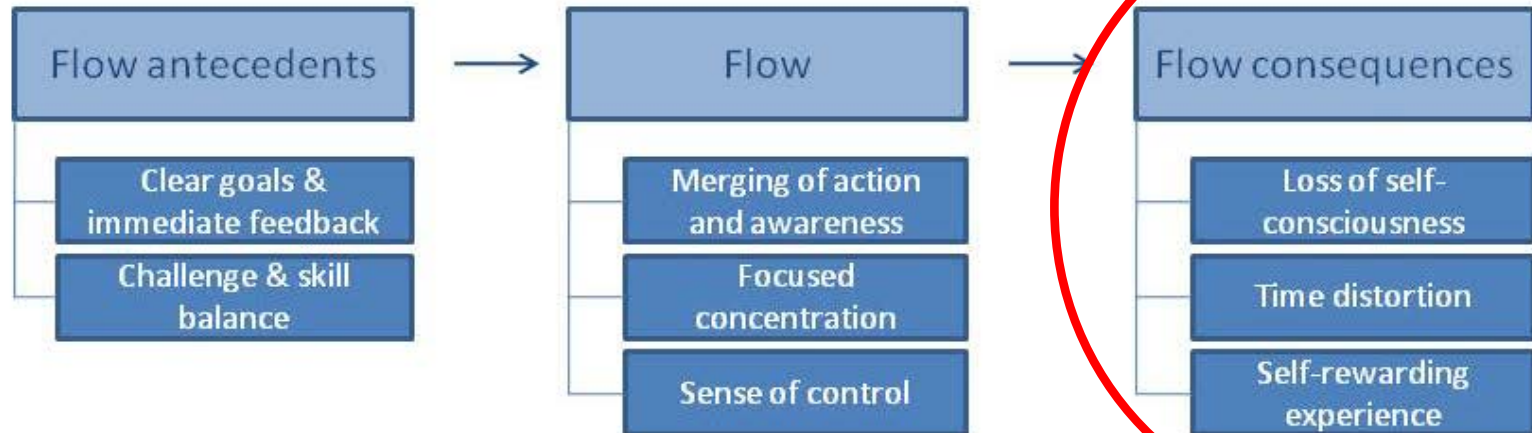
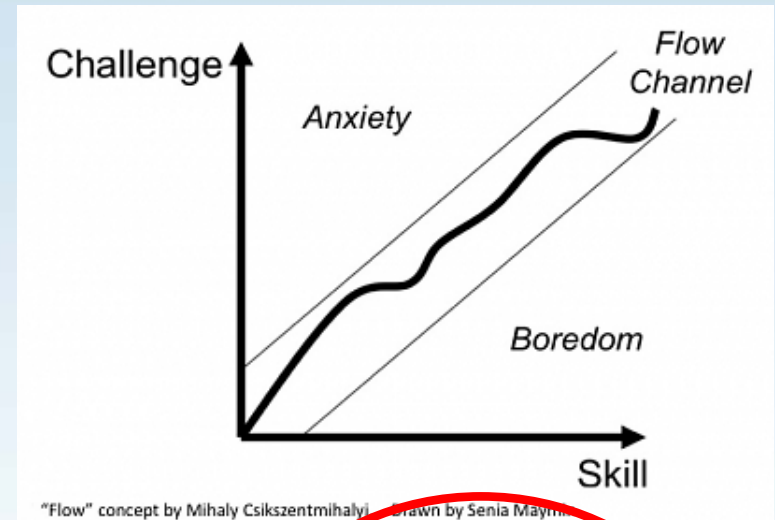


- Immersion in e-learning

What is immersion in e-learning?

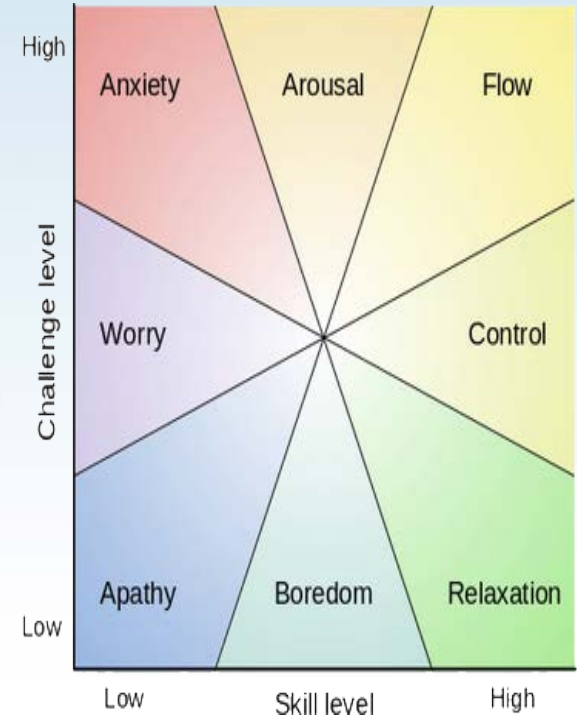
- Based on psychological concept of flow:

learners 'are so engaged in learning that time and fatigue disappear'



3 conditions to meet for achieving a flow state

- being involved in activities with clear and structured goals and progress
- performing tasks with articulate and immediate feedbacks
- having a good balance between perceived challenge level and skill level



Csikszentmihalyi's flow model

Progression of Immersion Mechanisms

- Adaptive Hypermedia
- E-learning 2.0, Social E-learning
- Challenge, Visualisation & Familiarity
- Gamification & Feedback



Adaptive Hypermedia

- Allows content to be personalised and recommended to users based on
 - User Preferences
 - User History
 - Presentation format
 - Network
 - Context
 - etc.

The current page

A relevant link

A link with less relevance



ICALT 2010

ICALT

[Conference Program](#)

[Hosting City](#)

[Accommodation](#)

About Hosting City

Location



The city of Sousse is located in the east-central part of the country on the Mediterranean coast.

The old part of the city, known as the medina, was declared by UNESCO a World Heritage Site in 1988.

Todo List

[Conference Program](#)
[Accommodation](#)

guest - [Logout](#)

[Next: Conference Program](#)

[Course List](#)

ICALT 2010

ICALT

[Conference Program](#)

[Hosting City](#)

[Accommodation](#)

About Hosting City

Location



The city of Sousse is located in the east-central part of the country on the Mediterranean coast. The old part of the city, known as the medina, was declared by UNESCO a World Heritage Site in 1988.

Weather



This period of the year (July) in Sousse is summer time. Temperatures are in the 25-35°C and may reach

Todo List

[Accommodation](#)

guest - [Logout](#)

[Next: Accommodation](#)

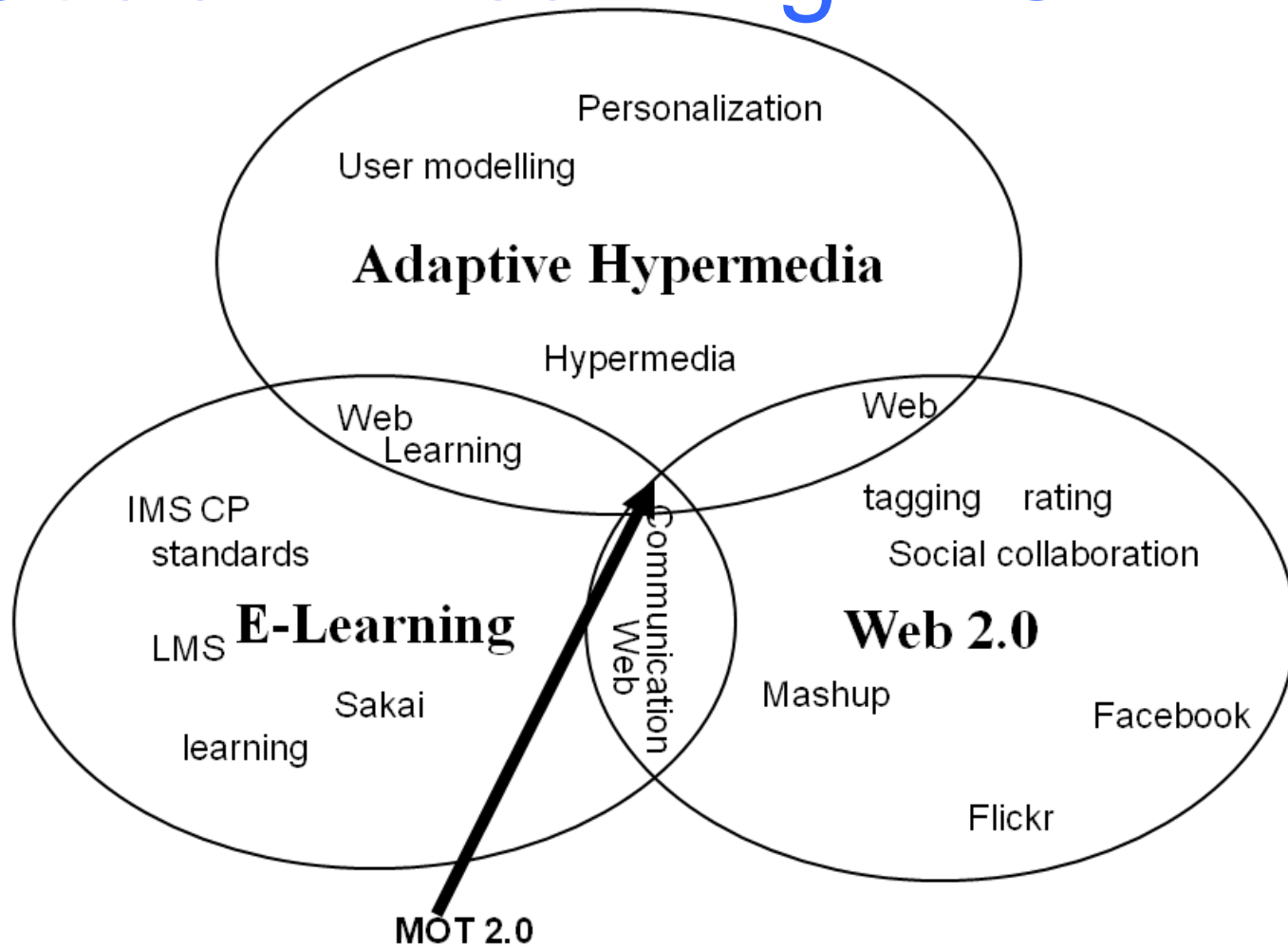
[Course List](#)

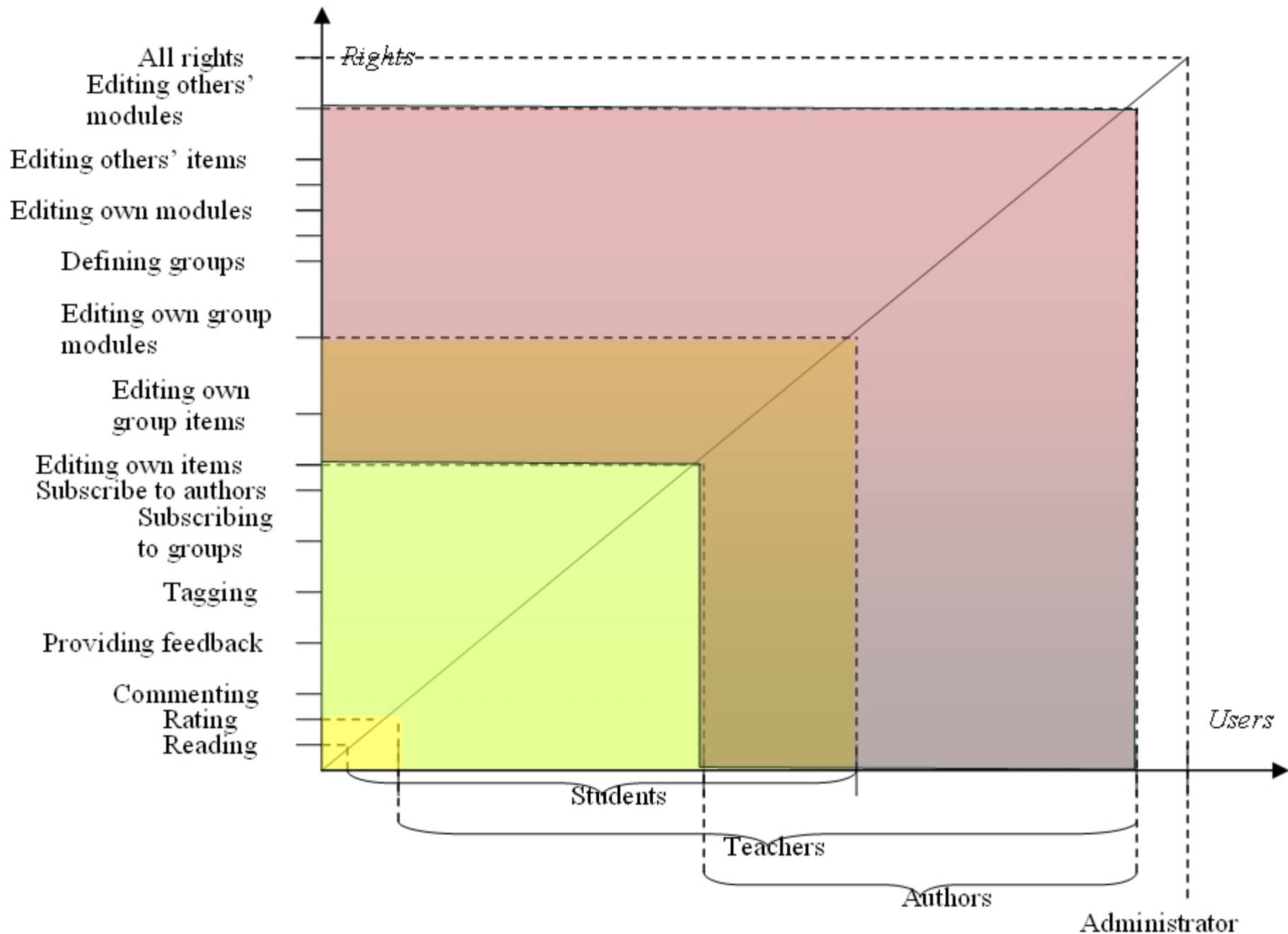
Adaptive Hypermedia Demos

Try out at:

- ADE:** <http://adaptive.dcs.warwick.ac.uk/>
- AHA!:** <http://prolearn.dcs.warwick.ac.uk/strategies.html>

Social E-Learning: MOT 2.0





- Collaborative Filtering
 - Introduction
 - Uses for
 - Collaborative Filtering
 - User Tasks
 - Collaborative Filtering vs Content-Based Filtering
 - Acquiring Ratings
 - Explicit vs Implicit Ratings
 - Cold Start Issues
 - Ongoing
 - Challenges to Collaborative Filtering
 - Privacy and Security
 - Trust
 - Summary
 - References
 - copyright

Collaborative filtering uses the assumption that people with similar tastes will rate things similarly. Content-based filtering uses the assumption that items with similar objective features will be rated similarly. For example, if you liked a web page with the words "tomato sauce," you will like another web page with the words "tomato sauce." The challenge is to cleanly extract the features of items that are most predictive. One then builds a user profile of features from the items a user has rated, and then compares that user profile to item profiles of new items whose features are extracted [1]. Content-based recommendations are discussed in Chapter 10 of this book [48]. Content-based filtering and collaborative filtering have long been viewed as complementary [1].

Content-based filtering can predict relevance for items without ratings (e.g., new items, high-turnover items like news articles, huge item spaces like web pages); collaborative filtering needs ratings for an item in order to predict for it. On the other hand, content-based filtering needs content to analyze. For many domains content is either scarce (e.g., restaurants and books without text reviews available) or it is difficult to obtain and represent that content (e.g., movies and music). Collaborative filtering does not require content. A content filtering model can only be as complex as the content to which it has access. For instance, if the system only has genre metadata for movies, the model can only incorporate this one extremely coarse dimension.

Vote here!

Rate: 4/5 - Very good

Tags: *E.g. Social Web, Facebook*

collaborative filtering, content-based, Content-based filtering, model

Feedback: [Add Feedback?](#)

By **salman**: I liked it!

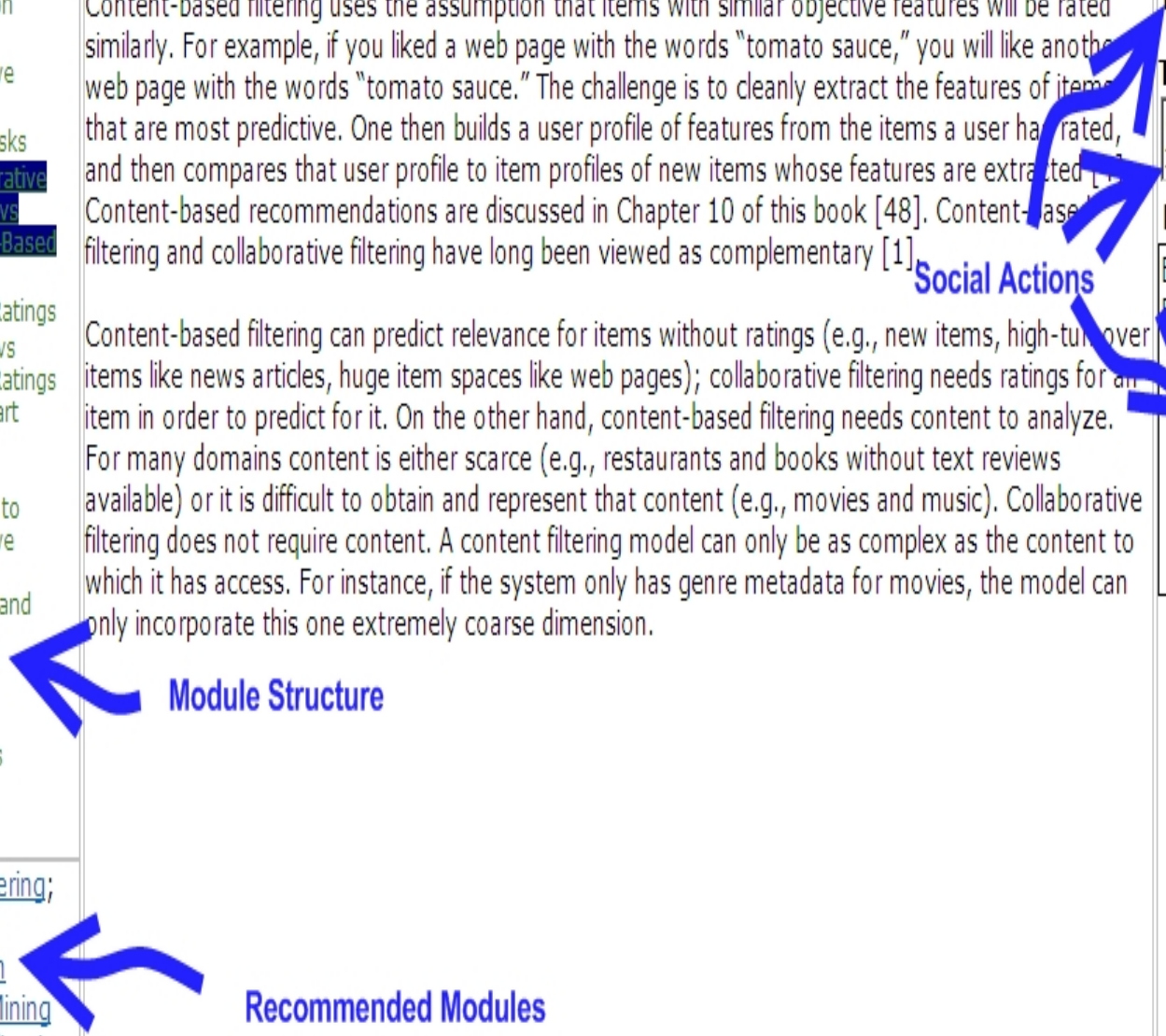
By **Nerin**: Very informative

Social Actions

Module Structure

Recommended Modules

[Collaborative Filtering; Content-Based Recommendation Systems; Data Mining for Web Personalization;](#)



- Collaborative Filtering
 - Introduction
 - Uses for
 - Collaborative Filtering
 - User Tasks**
 - Collaborative Filtering vs Content-Based Filtering
 - Acquiring Ratings
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 - Challenges to Collaborative Filtering
 - Privacy and Security
 - Trust
 - Summary
 - References
 - copyright

Designers of web services should carefully identify the possible tasks users may wish to accomplish with their site as different tasks may require different design decisions. From a marketing perspective, this is the value added by the CF system. In this section, we consider user tasks for which collaborative filtering is useful. Tasks for which people use collaborative filtering that have been studied include:

Module Structure

Social Actions

1. Help me find new items I might like. In a world of information overload, I cannot evaluate all things. Present a few for me to choose from. This has been applied most commonly to consumer items (music, books, movies), but may also be applied to research papers, web pages, or other ratable items.

2. Advise me on a particular item. I have a particular item in mind; does the community know whether it is good or bad?

recommended experts

3. Help me find a user (or some users) I might like. Sometimes, knowing who to focus on is as important as knowing what to focus on. This might help with forming discussion groups [39], matchmaking, or connecting users so that they can exchange recommendations socially.

4. Help our group find something new that we might like. CF can help groups of people find items that maximize value to group as a whole [46]. For example, a couple that wishes to see a movie together or a research group that wishes to read an appropriate paper.

Chat tool

5. Help me find a mixture of "new" and "old" items. I might wish a "balanced diet" of restaurants, including ones I have eaten in previously; or, I might wish to go to a restaurant with a group of people, even if some have already been there; or, I might wish to purchase some groceries that are appropriate for my shopping cart, even if I have already bought them before.

6. Help me with tasks that are specific to this domain. For example, a research paper recommender [60] might also wish to support tasks such as "recommend papers that my paper should cite" and "recommend papers that should cite my paper." Similarly, a recommender for a movie and a restaurant might be designed to distinguish between recommendations for a first date

Rate: 4/5 - Very good

Vote here!

Tags: E.g: Social Web, Facebook

collaborative filtering

Feedback: [Add Feedback?](#)

By **cspjak**: Another task may also be considered : "Help me find group, I may belong to". Many people are lost in

Save changes

Experts in this module: **fawaz**; **sagar**; **csuffl**;

various users nght

csugal: yeah

fawaz: CF is the process of filtering or evaluating items through the opinions of other people

csugal: they're used all over the place

csuffl: I get some javascript error popup and can't enter text in the Feedback box

fawaz: CF uses users' opinions, and not the items

sagar: ya but there is there any mechanism to verify the opinions

csugal: maybe we don't have

Visualisation & familiarity in Topolor1

1. Topolor - Home

2. Topolor - Module

- a) messages, Q&A list, notes, to-do.
- b) Learning peer list:
- c) Information flow wall
- d) Posting tool

- a) Learning topic adaptation.
- b) Learning peer adaptation & Messaging
- c) Web2.0 tools.
- d) next
- e) Quiz

Visualisation of social status, comparison & learning progress in Topolor 2

- Topolor's support for the sense of competence and relatedness include the comparison of learner performance and contribution



Structured & chunked goals with increasing challenges

Learning Path: Control x

- * **Control Process** 🔓 ●
 - * Basic Elements in Control Process 🔓 ●
 - * Basic Elements in Control Process: Establish Standards 🔓 ○ ◀ up next
 - * Basic Elements in Control Process: Measure Performance 🔓 ○
 - * Types and Scope of Control 🔓 ○
 - * Strategic Controls 🔒 ○
 - * Tactical Controls: Financial 🔒 ○

🔓 unlocked 🔒 locked ● learnt ○ not learnt ◀ up next a recommended topic to learn next

Gamification: Feedback

- *Feedback type as user characteristic (thus adaptation parameter)*
- *multi-dimensional levels of interactivity and feedback*
- *feedback is frequent, instantaneous/ immediate*
- *feedback is highly visible*
- *feedback is fine-grained*
- *feedback is volatile*
- *feedback is traceable*
- *distance to achievement, instead of challenges conquered (distance from start point)*

Immediate Feedback in Topolor 2

2. **Within the context of organizations, control involves...**

- A. arranging the organization's workforce in some sequence.
- B. tracking flow of transactions across different organizational departments.
- C. regulating activities and behaviors to accomplish specific organizational objectives.

Your answer: A Correct answer: C

* Control Process  | 

Feedback is fine-grained

topoor Collaborative Filtering The Beginning of CF ▾

I have learnt < Previous Next >

The Beginning of CF

As a formal area of research, collaborative filtering got its start as a means to handle the shifting nature of text repositories. As content bases grew from mostly "official" content, such as libraries and


1 / 0

#keyword-based #content-based #challenge #Automated Collaborative Filtering #limitation

Learning Path My Performance My Contribution Take a Quiz

Resources Questions Buddies Comments +

Sort by recent votes active comments featured

 **shilei** 10/04 12:32 PM * The Beginning of CF | O

Early stages of Collaborative Filtering

In the early 1990s there seemed to be two possible solutions to this new challenge: Wait for improvements in artificial intelligence that would allow better automated classification of documents, or

#keyword-based #content-based #challenge #Automated Collaborative Filtering #limitation

1 0 0 0

Gamification: Social aspects

- *interactivity with other players, social*
 - Competitive vs. collaborative element, group forming, chat, different type of interaction, mediation (tutor–learner versus peer learning; filtering (– education, context), re–mediation)

Competition: Player vs. Player



Social aspect: sharing

(1) creation widget



question text image quote link audio video

(2) filter widget



questions activities participated featured
all sharings resources bookmarked I shared

(3) shared question



SunciHadzi

12/23 10:23 AM

The patterns in Collaborative Filtering

What can be the patterns during the CF process?

#CF

5 0 0 1



(4) shared text



shilei

12/23 10:22 AM

* Algorithmic Questions

Algorithmic Questions

Predicting well and recommending well at the same time.

Efficient algorithms for recommendation may choose not to produce predicted values at all, or may choose to only store a small amount of information necessary to

#algorithmic #challenge #tagging

0 0 1 1



(5) shared link



DanaQudah

12/23 10:21 AM

* Uses of CF

Code of CF in PHP →

Code of CF in PHP

#Programmimg #PHP #CF

5 0 0 0



Load more resources & questions

Gamification: Rewards

- *Barriers to access versus rewards*

I have learnt < Previous Next >

The Beginning of CF

As a formal area of research, collaborative filtering got its start as a means to handle the shifting nature of text repositories. As content bases grew from mostly "official" content, such as libraries and

#keyword-based #content-based #challenge #Automated Collaborative Filtering #limitation

1 / 0

Learning Path My Performance
My Contribution Take a Quiz

Resources Questions Buddies Comments +

Sort by recent votes active comments featured

 **shilei** 10/04 12:32 PM * The Beginning of CF

Early stages of Collaborative Filtering

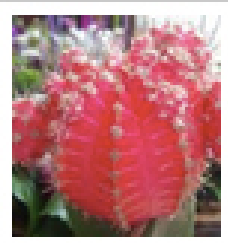
In the early 1990s there seemed to be two possible solutions to this new challenge: Wait for improvements in artificial intelligence that would allow better automated classification of documents, or

#keyword-based #content-based #challenge #Automated Collaborative Filtering #limitation

1 0 0 0

Gamification: multi-dimensionality

- *Access to information (such as feedback) can be obtained in multiple, redundant ways*



SunciHadzi

last activity 12/23 12:31 PM

15 topics learnt 21 likes

34 sharings 5 comments

3 questions 2 answers

message

profile

Askin

Student

enter any questions you have.

mark to



Gamification: Freedom

- Rules of the 'game' \leftrightarrow versus freedom ('shoot someone/ anyone')



Sunci Hadzi

[send a message](#)

[PK.](#)

- About**
- [Activities](#)
- [Resources](#)
- [Questions](#)

Resources recently shared

[Simon Sinek: How great leaders inspire action](#)

12/23 11:46 AM

[What factors affect control?](#)

12/23 11:38 AM

Questions recently asked

Gamification: Centrality of Learning

- vicarious learning (learning almost as a side effect) in games
 - Learning whilst interacting
- Knowledge has a function in the game
- Packaging of content and information in smaller sized ‘packages’, encased in other information (or, more interestingly activities and context)
 - E.g.: course – lesson – resources ...

Gamification: Emphasis on Process

- *Information* and *process* both as first hand citizens
 - E.g., interaction – views, messages ...

other gamification features

- **storytelling**: tours for guiding 'newbie' learners to use various features
- **profile pages**: publishing learning activities, learning status statistics, visualisations of performance and contribution
- **leaderboard**;
- **team building**: discussing and commenting on learning contents
- **peer reviewing**: rating peers' posts and comments

ropolor Courses

(1) the sharing widget

(1.1) (1.2) (1.3) (1.4) (1.5) (1.6) (1.7)

(2) the filtering widget

(2.1) (2.2) (2.3) (2.4) (2.5) (2.6) (2.7) (2.8)

(3) a shared question

SunciHadzi
12/23 10:23 AM

The patterns in Collaborative Filtering

What can be the patterns during the CF process?

5 0 0 1

(4) a shared text

shilei
12/23 10:22 AM

Algorithmic Questions

Predicting well and recommending well at the same time.
Efficient algorithms for recommendation may choose not
#algorithmic #challenge #tagging

0 0 1 1

(5) a shared link

DanaQudah
12/23 10:21 AM

Uses of CF

Code of CF in PHP

Code of CF in PHP
#Programming #PHP #CF

5 0 0 0

Load more resources & questions

(a) The Home Page

ropolor Collaborative Filtering

Collaborative Filtering

4 / 0

Collaborative filtering (CF) is a technique used by some recommender systems. Collaborative filtering has two senses, a narrow one and a more general one. In general, collaborative filtering is the process of filtering for information or patterns using techniques involving collaboration among multiple agents, viewpoints, data sources,

Learning Path My Performance
My Contribution Take a Test

(1) the menu bar for switching recommendation lists

Topics Resources Questions Buddies Comments

Sort by learning path resources questions all unlocked

(2) the sorter-filter bar

The Beginning of CF

#keyword-based #content-based #challenge

As a formal area of research, collaborative filtering got its start as a means to handle the shifting nature of text repositories. As content bases grew from mostly "official" content, such as libraries and corporate document sets, to "informal" content such as discussion lists and e-mail

2 0 2 11 1 0

(3) a topic belong to this course

CF and Adaptive Web

#adaptive web #explicit #recommendation

(c) A Course Page

ropolor Collaborative Filtering The Beginning of CF

(1) learning path recommendation

I have learnt

< Previous Next >

The Beginning of CF

1 / 0

As a formal area of research, collaborative filtering got its start as a means to handle the shifting nature of text repositories. As content bases grew from mostly "official" content, such as libraries and

#keyword-based #content-based #challenge

Learning Path My Performance
My Contribution Take a Quiz

Resources Questions Buddies Comments

Sort by recent votes active comments featured

(2) a resource belong to this topic

shilei
10/04 12:32 PM

The Beginning of CF

Early stages of Collaborative Filtering

In the early 1990s there seemed to be two possible solutions to this new challenge:
Wait for improvements in artificial intelligence that would allow better automated classification of documents, or
Bring human judgment into the loop.
While the challenges of automated classification have yet

#keyword-based #content-based #challenge
#Automated Collaborative Filtering #limitation

1 0 0 0 0

(f) A Topic Page

« Back to topic: The Beginning of CF

Early stages of Collaborative Filtering

In the early 1990s there seemed to be two possible solutions to this new challenge: Wait for improvements in artificial intelligence that would allow better automated classification of documents, or Bring human judgment into the loop.

Author



Michael


27 likes
33 sharings
2 questions
14 comments


Comments


Sort by recent votes

comment

Post comment **Cancel**

 **acristea** 11/26 11:39 PM
These are very useful basic formulas to create a CF algorithm.

 **Brian** Today 01:05 PM
Yeah Harold Koontz's is better

 **John** Today 01:04 PM
I dont like EFL's definition :(

Recommendations

Related topics


- Managerial Challenges
- Algorithmic Questions
- Cold Start Issues

Related resources

- Algorithmic Questions

(b) A Resource Page

ropolar



Sunci Hadzi

[send a message](#) **PK.**

About **Activities** **Resources** **Questions**

Resources recently shared

Simon Sinek: How great leaders inspire action
11/27 11:46 AM

What factors affect control?
11/27 11:38 AM

Questions recently asked

The patterns in Collaborative Filtering

(d) A Profile Page

My Learning Path: Collaborative Filtering

- introduction
 - Core Concepts
 - The Beginning of CF **Up next**
- Uses of CF
 - User Tasks
 - CF System Functionality

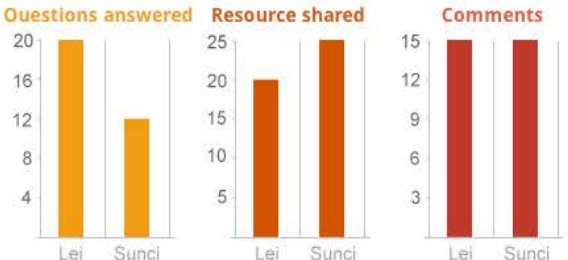
unlocked locked learnt not learnt **Close**

(e) A Pop-up View - Learning Path

Lei PK. Sunci

My Performance My Contribution

Questions answered **Resource shared** **Comments**



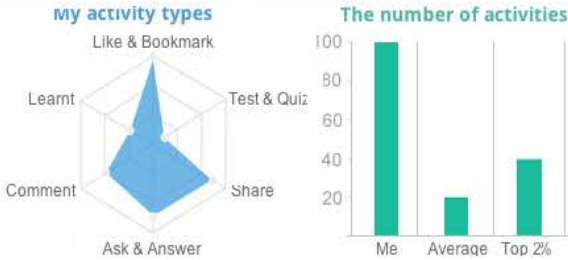
Metric	Lei	Sunci
Questions answered	20	12
Resource shared	20	25
Comments	15	15

(g) A Pop-up View - 'PK.' mode

My performance on: Collaborative Filtering

Course/test Topic/quiz Liked/bookmarked Activities

my activity types **The number of activities**

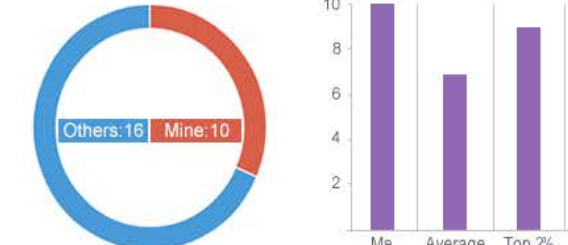


Activity Type	Me	Average	Top 2%
Like & Bookmark	100	20	40
Test & Quiz	100	20	40
Share	100	20	40
Ask & Answer	100	20	40
Learnt	100	20	40
Comment	100	20	40

(h) A Pop-up View - Comparison of Performance

My contribution on: Collaborative Filtering

Questions Answers Resources shared Comments



Others:16 Mine:10

Metric	Me	Average	Top 2%
Questions	10	7	9
Answers	10	7	9
Resources shared	10	7	9
Comments	10	7	9

(i) A Pop-up View - Comparison of Contribution

Demos

Try out at:

- Topolor2:** <http://www.topolor.com/>
- Topolor1:** <http://topolor-shek.rhcloud.com>
- Topolor1.1:** <http://www.alamri.co.uk/>

Thank you!

Any questions?



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authoring computer
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