Sharing Data Sets to Personalize Learning

16.09.2010 Round table at ICL conference 2010, Hasselt, Belgium

Hendrik Drachsler
Centre for Learning Sciences and Technology
@ Open University of the Netherlands
What is dataTEL

• dataTEL is a Theme Team funded by the STELLAR network of excellence.

• It address 2 STELLAR Grand Challenges
  1. Connecting Learner
  2. Contextualisation.
Five core questions:

1. How can data sets be shared according to privacy and legal protection rights?
2. How to development a respective policy to use and share data sets?
3. How to pre-process data sets to make them suitable for other researchers?
4. How to define common evaluation criteria for TEL recommender systems?
5. How to develop overview methods to monitor the performance of TEL recommender systems on data sets?
Decade of change

Graphic by Alex Guerten, 2008
GLOBALISATION

Graphic by Alex Guerten, 2008
GLOBALISATION

PROSUMERS

Graphic by Alex Guerten, 2008
The Glocalisation / Prosumers world

Designed by Zohar Manor-Abel, ©2009 Some Rights Reserved

by Zohar Manor-Abel http://flickr.com/photos/zoharma/97214235/sizes/l/
Information emerge

Johnson, S. (2001)
Information emerge

Johnson, S. (2001)
Information emerge

Johnson, S. (2001)
Information emerge

Johnson, S. (2001)
Information emerge

Johnson, S. (2001)
Information emerge

Johnson, S. (2001)
Information emerge

“We are leaving the age of information and entering the age of recommendation”

Chris Anderson (2004)

Johnson, S. (2001)
Free the data

by Tom Raftery  http://www.flickr.com/photos/traftery/4773457853/sizes/l
Why?
Because we will get new insights
Open data example

Community generated

Here About a Court Case?

ABOUT YOUR COURT CASE

Contact Information

By mail:
Public.Resource.Org
1085 Gravenstein Hwy. North
Sebastopol, CA 55472

By fax:
(707) 829-0104
By email:
carl@media.org

Supporting Public.Resource.Org
Public.Resource.Org is a registered 501(c)(3) nonprofit and your contributions are tax-deductible as allowed by law. Checks may be sent to the above address, or you may use our PayPal account for donations as well. Thank you for your support.

Donate

Our Supporting Paperwork

- Articles of Incorporation
- Bylaws
- IRS Determination
- Other Financial Statements
Application Areas
Application Areas

Technology-Enhanced Learning
Application Areas

Science 2.0

Technology-Enhanced Learning

by Ivan Plata, flickr
Application Areas

Technology-Enhanced Learning

Science 2.0

e-democracy / e-participation

e-health
MOBILE COMPUTING

Time-to-Adoption Horizon: One Year or Less

The available choices for staying connected while on the go are many — smart phones, netbooks, laptops, and a wide range of other devices access the Internet using cellular-based portable hotspots and mobile broadband cards, in addition to wi-fi that is increasingly available wherever people congregate. At the same time, the devices we carry are becoming ever more capable, and the boundaries between them more and more blurred. In the developed world, mobile computing has become an indispensable part of day-to-day life in the workforce, and a key driver is the increasing ease and speed with which it is possible to access the Internet from virtually anywhere in the world via the ever-expanding cellular network.
OPEN CONTENT

Time-to-Adoption Horizon: One Year or Less

The movement toward open content reflects a growing shift in the way academics in many parts of the world are conceptualizing education to a view that is more about the process of learning than the information conveyed in their courses. Information is everywhere; the challenge is to make effective use of it. Part of the appeal of open content is that it is also a response to both the rising costs of traditionally published resources and the lack of educational resources in some regions, and a cost-effective alternative to textbooks and other materials. As customizable educational content is made increasingly available for free over the Internet, students are learning not only the material, but also skills related to finding, evaluating, interpreting, and repurposing the resources they are studying in partnership with their teachers.
SIMPLE AUGMENTED REALITY

Time-to-Adoption Horizon: Two to Three Years

While the capability to deliver augmented reality experiences has been around for decades, it is only very recently that those experiences have become easy and portable. Advances in mobile devices as well as in the different technologies that combine the real world with virtual information have led to augmented reality applications that are as near to hand as any other application on a laptop or a smart phone. New uses for augmented reality are being explored and new experiments undertaken now that it is easy to do so. Emerging augmented reality tools to date have been mainly designed for marketing, social purposes, amusement, or location-based information, but new ones continue to appear as the technology becomes more popular. Augmented reality has become simple, and is now poised to enter the mainstream in the consumer sector.
**VISUAL DATA ANALYSIS**

**Time-to-Adoption Horizon: Four to Five Years**

Visual data analysis blends highly advanced computational methods with sophisticated graphics engines to tap the extraordinary ability of humans to see patterns and structure in even the most complex visual presentations. Currently applied to massive, heterogeneous, and dynamic datasets, such as those generated in studies of astrophysical, fluidic, biological, and other complex processes, the techniques have become sophisticated enough to allow the interactive manipulation of variables in real time. Ultra high-resolution displays allow teams of researchers to zoom in to examine specific aspects of the renderings, or to navigate along interesting visual pathways, following their intuitions and even hunches to see where they may lead. New research is now beginning to apply these sorts of tools to the social sciences and humanities as well, and the techniques offer considerable promise in helping us understand complex social processes like learning, political and organizational change, and the diffusion of knowledge.
OPEN INNOVATION
Beyond the

THE HORIZON REPORT

2010 EDITION

A collaboration between The NEW MEDIA CONSORTIUM and the EDUCAUSE Learning Initiative
An EDUCAUSE Program
Beyond the Horizon Report

2010 Edition

The NEW MEDIA CONSORTIUM and EDUCAUSE Learning Initiative
An EDUCAUSE Program
Beyond the HORIZON REPORT
2010 EDITION

MA$HUP TECHNOLOGY
Beyond the PROTECTION RIGHTS
Open Innovation

Open to ideas

P&G’s Connect + Develop open innovation strategy has established more than 1,000 active agreements with innovation partners. Connect + Develop enables us to share our R&D, commercialization and brand strength with partners worldwide, bringing great ideas to market—and into the lives of consumers—faster.

HOW SWIFFER DUSTERS GOT THEIR START

Could your INNOVATION be the next GAME-CHANGING DEAL?

Did you know that more than 50 percent of product initiatives at Procter & Gamble involve significant collaboration with external partners? 6

Browse P&G Assets

Are you looking for opportunities to access and license P&G’s

Also Visit:

P&G FutureWorks
P&G Academia Initiative—Russia

Connect + Develop

Submit Your Innovation

Browse P&G’s Needs

Media Center

Log in to your account.

Not registered? Register here.
Username: (This is your email address)
Password:

Log in
Forgot your password?

User Home
Submit Your Innovation
Browse P&G Needs
Browse P&G Assets
FAQ

Home
About Connect + Develop
Open Innovation

R&D -> C&D

commercialization and brand strength with partners worldwide, bringing great ideas to market—and into the lives of consumers—faster.

HOW SWIFFER DUSTERS GOT THEIR START

Could your INNOVATION be the next GAME-CHANGING DEAL?

Did you know that more than 50 percent of product initiatives at Procter & Gamble involve significant collaboration with...

Browse P&G Assets
Are you looking for opportunities to access and license P&G's
Open Innovation
Open Innovation
Mashups and Widgets

GEO VIEWER

We are pleased to announce the availability of the Data.gov GEO Viewer, an interactive mapping tool designed to let users preview geospatial data available through the Data.gov catalogs.

VIEW MORE

Most Popular Datasets
1. Food and Drug Administration--Recalls
2. Worldwide M+ Earthquakes, Past 7 Days
3. AVAILABLE TECHNOLOGIES
4. Travel Alerts
5. TSCA Inventory

SEARCH OUR CATALOGS

DATA.gov is leading the way in democratizing public sector data and driving innovation. The data is being surfaced from many locations making the Government data stores available to researchers to perform their own analysis. Developers are finding good uses for the datasets, providing interesting and useful applications that allow for new views and public analysis. This is a work in progress; but this

As the Web of linked documents evolves to include the Web of linked data, we’re working to maximize the potential of Semantic Web technologies to realize the promise of

13
Mashups and Widgets

GEO Viewer

We are pleased to announce the availability of the Data.gov GEO Viewer, an interactive mapping tool designed to let users preview geospatial data available through the Data.gov catalogs.

view more

Most Popular Datasets
1. Food and Drug Administration—Recalls

EveryBlock

A news feed for your block

Track and discuss what's new in your neighborhood.

Choose a city...

- Atlanta
- Boston
- Charlotte
- Chicago
- Dallas
- Detroit
- Houston
- Los Angeles
- Miami
- New York
- Philadelphia
- Portland
- San Francisco
- San Jose
- Seattle
- Washington, DC

Don't see your city?

EveryBlock New York City

Restaurant inspections

Welcome to EveryBlock's New York restaurant inspection section. Here, you can explore restaurant inspections in New York in various ways. Use "Search near an address" to find restaurant inspections near any specific block or neighborhood, and use the powerful custom filter to create your own reports according to various criteria.
Recommender Systems

SIRTEL 2007
Workshop on Social Information Retrieval for Technology-Enhanced Learning

In conjunction with
2nd European Conference on Technology Enhanced Learning (EC-TEL'07)

Crete, Greece, September 17-20, 2007

Full Day Workshop on
Social Information Retrieval for Technology-Enhanced Learning (SIRTEL 2007)

Took place on Tuesday, 18th of September 2007

Program included:

• 7 full paper presentations & 1 system demonstration
• 1 video keynote by Jim Shur (Chief Architect) & Rick Hangartner (Chief Scientist), MyStrands
• 1 open discussion session chaired by Erik Duval, Katholieke Universiteit Leuven & ARIADNE Foundation
Recommender Systems

There is a growing interest in providing technology-mediated lifelong learning services (LLL) for ALL. Although an increasing number of the users interested in these services are adult learners and people with disabilities, most available settings do not consider functional diversity requirements. Moreover, it is a hot research issue to acquire, update, and manage user models that consider the functional diversity of users so that their accessibility needs are met.

On the one hand, user modelling is supposed to provide the appropriate content transformations and adapted resources to users' needs when available. On the other hand, contents are supposed to follow Web Content Accessibility Guidelines (WCAG 1.0), which version 2.0 of these guidelines is near completion. Moreover, users access contents and services with a variety of devices and with different interaction modes that should consider personal characteristics (including disabilities) and the context of usage.

In addition, to make this framework interoperable, flexible and extensible, contents, user models, and device descriptions should be standardized. In this respect, available specifications, such as IMS AccessForAll Specifications, are currently being adopted within an ISO standard under development in that organisation's committee known as JTC1 SC34. There has also been work towards profiling the AccessForAll metadata to the IEEE LOM - Learning Object Metadata standard and the Dublin Core (DCMI) metadata set.
Recommender Systems

Organised jointly by
4th ACM Conference on Recommender Systems (RecSys 2010)
5th European Conference on Technology Enhanced Learning (EC-TEL 2010)
Barcelona, Spain, 29-30 September 2010

Notifications to authors already sent.
Camera-ready versions have to be received by August 15, 2010

Submission for DataTEL challenge: August 31st, 2010 ***EXTENDED***

1st Workshop on Recommender Systems for Technology Enhanced Learning (RecSysTEL 2010)
In conjunction with
4th ACM Conference on Recommender Systems (RecSys 2010)
5th European Conference on Technology Enhanced Learning (EC-TEL 2010)
Barcelona, Spain, 29-30 September 2010

Keynote Speakers:
Joseph Konstan, GroupLens Research, University of Minnesota (USA)
Protection Rights

PLEASE ROB ME

Listing all those empty homes out there

Also follow our twitter feed @pleaserobme
Protection Rights
Protection Rights

OVERSHARING
Open Innovation in Practice

Are there any Twitter users?
Open Innovation in Practice

Please use the following hashtag for the backchannel.
Open Innovation in Practice

Please use the following hashtag for the backchannel.
Open Innovation in Practice

HASHTAG: #DATATEL

Please use the following hashtag for the backchannel.
So what about you …

Five core questions:

1. How can data sets be shared according to **privacy and legal protection rights**?
2. How to development a **respective policy to use and share** data sets?
3. How to **pre-process data sets** to make them suitable for other researchers?
4. How to define common **evaluation criteria** for TEL recommender systems?
5. How to develop **overview methods to monitor the performance** of TEL recommender systems on data sets?
Join us for a Coffee ...

http://www.teleurope.eu/pg/groups/9405/datatel/
Many thanks for your interests

This slide is available at:  
http://www.slideshare.com/Drachsler

Email: hendrik.drachsler@ou.nl  
Skype: celstec-hendrik.drachsler  
Blogging at: http://www.drachsler.de  
Twittering at: http://twitter.com/HDrachsler