Programma

- 10:30-11:00 Inleiding (Prof.dr.ir. Remko Helms, OU)
- 11:00-12:00 Text Mining & machine learning in actie! (Longhow Lam, SAS)
- 12:00-13:15 Lunch
- 13:15-14:15 Gaming researchers' social media analytics (Dr. Hugo Jonker)
- 14:15-15:00 Nieuwe onderwijsaanpak (Prof.dr. Marko van Eekelen, OU)
- 15:00-15:15 Koffie/thee
- 15:15-16:00 Diverse parallele sessies
- 16:05-16:55 Huldiging (Prof.dr. Rob Kusters, OU)
- 16:55-17:00 Afsluiting (Netty Stoelinga, voorzitter TouW)
- 17:00 Borrel en buffet
- 19:30 Einde
Partners in BISS
Open University, Maastricht University and Zuyd Hogeschool

The Core Values of BISS are
- Multidisciplinary Collaboration
- Experimentation
- Talent Development
TALENT DEVELOPMENT

BISS is dedicated to the economic growth of its surroundings through the personal development of students and professionals, both regionally and internationally.

- General education
  - Bachelor of ICT
  - Master of Business Intelligence & Smart Services
  - Part-time variant
- Exceptional education
  - Post-graduate education
  - Master classes
  - Retraining personnel

MULTIDISCIPLINARY COLLABORATION

BISS is founded on the belief that the best solutions are found by addressing an issue through multidisciplinary, interactive teamwork.

- Researchers and students from UM, OU, ZUYD
- Collaboration with business partners
- Embedded in EU-region (academic, business)
- International network (academic, business)
EXPERIMENTATION

BISS is a “lab-like” environment where all are encouraged to experiment with ideas beyond conventional thinking.

- Test community
- Generation of big data
- App development and start-ups
- Business development

Datasafari
remhelms.wordpress.com

Inleiding
Social Media Analytics
Rise of social media

- Usenet 1979
- Six degrees 1997 (RIP)
- Wikipedia 2001
- Friendster 2002 (RIP)
- MySpace 2003 (popular 2006)
- LinkedIn 2003 (259M)
- YouTube 2005
- Facebook 2004/2006 (1,184M)
- Twitter 2006 (232M)
Addictive social media use

- 14% of girls between 12 and 18 is daily active on social media for more than 5 hours!
- For boys this is 5.5%
- The majority of spends 1-3 hours daily on social media (47% and 53% resp)
### Usage of social media platforms

<table>
<thead>
<tr>
<th>Social Platform</th>
<th>Active Users (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facebook</td>
<td>1,184</td>
</tr>
<tr>
<td>QQ</td>
<td>861</td>
</tr>
<tr>
<td>Ozone</td>
<td>632</td>
</tr>
<tr>
<td>Whatsapp</td>
<td>400</td>
</tr>
<tr>
<td>Google+</td>
<td>300</td>
</tr>
<tr>
<td>Wechat</td>
<td>272</td>
</tr>
<tr>
<td>LinkedIn</td>
<td>259</td>
</tr>
<tr>
<td>Twitter</td>
<td>232</td>
</tr>
<tr>
<td>Tumbler</td>
<td>230</td>
</tr>
<tr>
<td>Tencent Weibo</td>
<td>220</td>
</tr>
</tbody>
</table>

[Source: Wearesocial.net]
Poll

- Have you been online today?
- Did you post something?
Twitter

TripAdvisor
Growing volumes of (social) data

• In one minute in 2013
  – 347,222 messages posted on Twitter
  – 38,194 photos uploaded to Instagram
  – 3.3 million pieces of content shared on FB
  – 6.9 million messages sent on FB
  – 100 hours of video uploaded to YouTube

What knowledge is hidden in all that data?
Company image

- Monitoring of social media activity around a brand/company

Australian floods

[Source: www.abc.net.au]
ALL public Dutch social media messages since 2010
- Data set of more than 4 billion messages!
- 3-4 million new messages each day

[Bron: CBS]

Who is following you?
Mining of Enterprise social networks

![Diagram of enterprise social networks]

- Opinion & Clarification (44.3%)
  - Ask for opinion | Voice opinion
  - Ask for clarification | Provide clarification
- Problem solving & support (18.8%)
  - Ask for solution (how-to) | Provide solution
  - Ask for resources | Provide resources
- Others (9.2%)
  - Provide social feedback
  - Self Marketing | Note to do
- Information sharing (12.0%)
  - Post links & references
  - Notify of upcoming events
- Updates & notifications (16.7%)
  - Ask for status update | Provide status update
  - Ask for task update | Provide task update

Figure 2. Overview of Microblogging genre repertoire at Copernicus

(Source: Riemer et al. 2011)

Dark side of Big Data

![Graph of spurious correlations]

This is the tragedy of big data: the more variables, the more correlations that can show significance. Falsely also grows faster than information; it is nonlinear (convex) with respect to data (this convexity in fact resembles that of a financial option payoff). Noise is antifragile. Source: N.N. Taleb

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Spurious correlation: Chocolate and Nobel prize winners

![Graph showing correlation between chocolate consumption and Nobel Laureates per 10 Million Population.](image)

\[ r = 0.791, \quad P = 0.001 \]

Figure 1: Correlation between Countries' Annual Per Capita Chocolate Consumption and the Number of Nobel Laureates per 10 Million Population.

Too much data: Data wipe-out

![Surfing image](image)

THE SURFARIS WIPE OUT

14
Privacy

ING gaat toch verder met analyse klantgegevens

Onder de strom van kritiek, de ING drie weken geleden de prijzen konvo, gaat de twee verder met data-analyse van klantgegevens. Dat blijkt uit een persbericht dat de bank vandaag gaf. "We verbeteren onze analytische vaardigheden om onze klanten beter te begrijpen en uiteraard traditionele bankieren te gaan," schrijft de bank.

Door: Anouck 23 maart 2015, 17:00

Vragen?

Remko.Helms@ou.nl
@remhelms
(earlier on Twitter than 98,6% of other Twitter users)

http://portal.ou.nl/web/informatica
http://ou.nl/informatica