



MINE your own business !



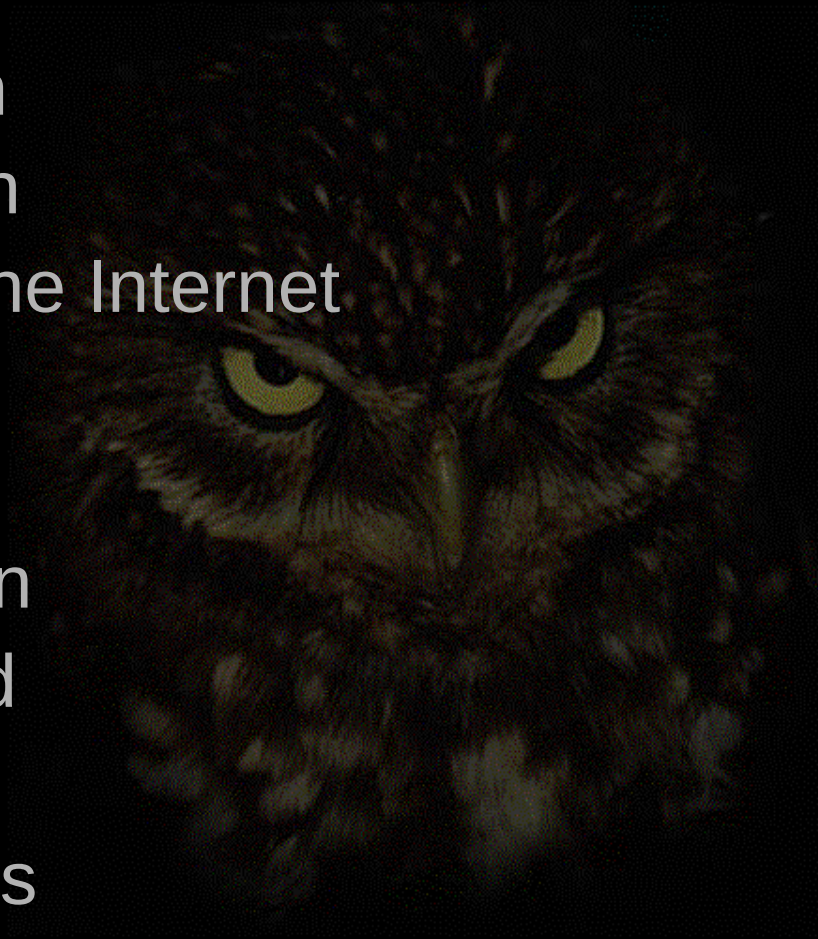
MINE your own business!

Web Mining of a banking website

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MINE your own business !

- MINEvision
- Introduction
- Banks on the Internet
- Webmining
- SITEscan
- STRATscan
- Scoreboard
- BANscan
- Conclusions





MINE your own business !

MINEvision

Company Profile

- MINEvision is a **leading** consultancy agency specialised in Data Mining, Text Mining, Web Mining and Analytical CRM.
- MINEvision was founded as a spin-off by researchers of the research group Data Analysis and Modelling of the Limburg University Centre.
- The staff of MINEvision has **excellent academic and commercial experience** in the provided services. Several international publications have been achieved.
 - **Data mining:**
 - 2nd at best paper award election on 5th International Knowledge Discovery and Data Mining Conference, San Diego, USA.
 - **Web mining:**
 - 2 papers at international workshop on web knowledge discovery and data mining, Kyoto, Japan.



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MINEvision

Company Profile

- Employees MINEvision
 - 15 full-time consultants in statistics and data mining
- Ubimedia: >200 employees, Turnover : > 500 MBEF
- Members of the Ubimedia-group:



Data Mining, Web Mining
& A-CRM



Internet based media
asset management and
publishing software



Belgian Internet Mapping



Internet integrator



Website hosting
& housing



E-mail management &
Campaign management



MINEvision

MINE your own business !

The Concept

**CONSULTANCY
TOOL RESELLER**

Analytical Customer Relationship Management

Data Mining

Web Mining

Research
Group
University
LUC

Data Mining
Experts

Member of
Ubimedia
Group

Strategic
Partnerships

MINEvision



MINE your own business !

MINEvision

Technology Partners

- Data Mining



- Web Mining



- A-CRM



- The internet
 - +/- 150 million users worldwide, still growing
 - High penetration rate
 - Huge amount of information, documents,...
 - Increasing online spending
- Banks on the internet
 - Growing popularity
 - Information and communication channel

- Advantages
 - Wide geographical area reached
 - Time of response
 - Cost advantages
- Different kinds of web sites
 - Informational level
 - Communicative level
 - Transactional level

- Level 1: Informational level
 - Marketing tool and information provider
 - Collect data to refine sales and marketing
 - E-mail
- Possible actions
 - Increase conversion rate
 - Increase retention rate

- Level 2: Communicative level
 - Interactive, confidential information transfer
 - Inquiries about accounts, loans,...
- Possible actions
 - Increase brand awareness
 - Reduce clicks-to-close

- Level 3: Transactional level
 - Real-time queries and transactions
 - Update account information
 - Access to bank databases
- Possible actions
 - Increase number of referred customers
 - Increase profit per checkout

- Internet is a tool for Customer Relationship Improvement
- How to measure the results?

➔ WEB MINING



- What is web mining?

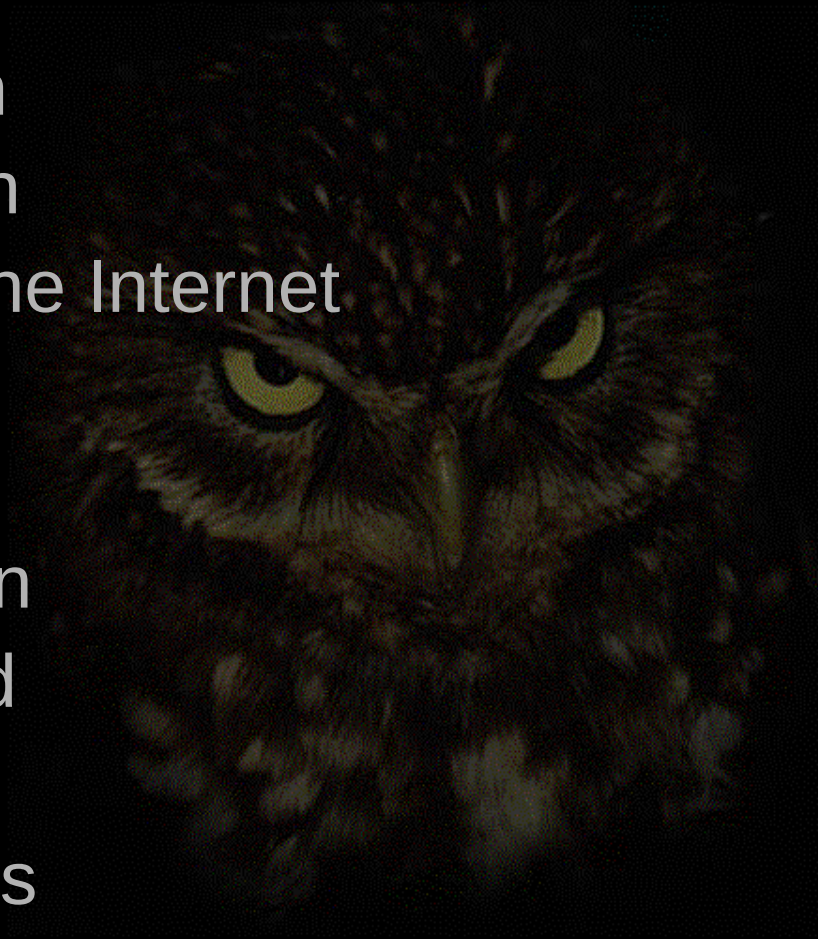
The use of algorithms to autonomously extract relationships among web data, to determine if patterns exist that can yield actionable business and marketing intelligence. (Jesus Mena, 1999)

- Provides an answer to:

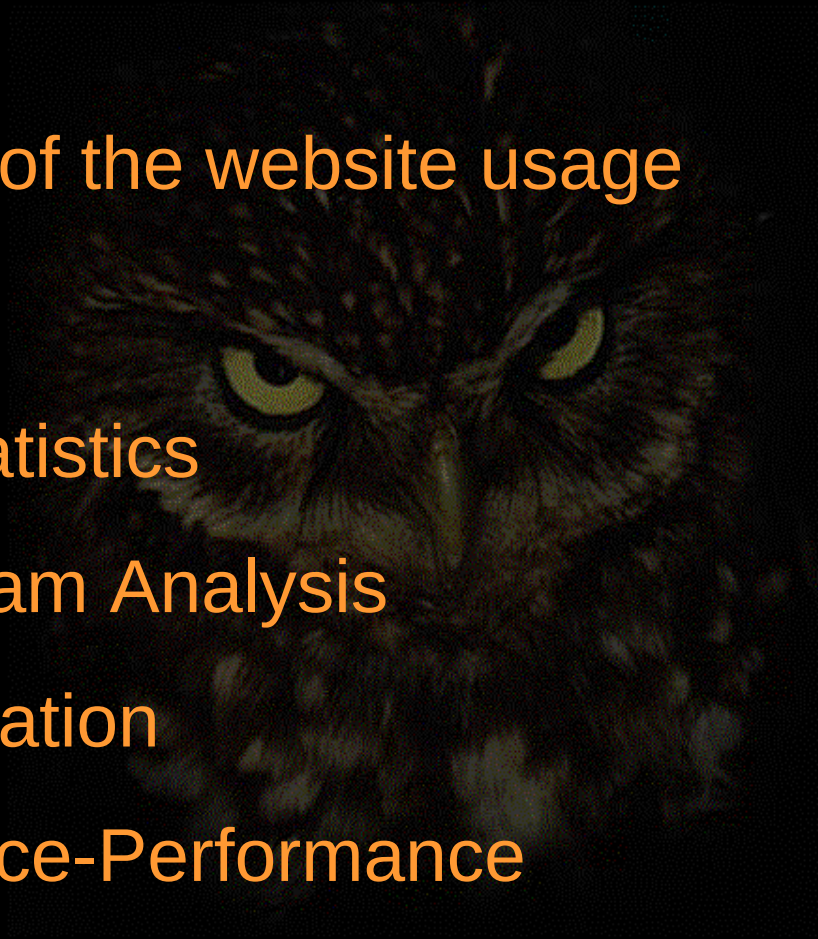
- Is my website being used?
- Who uses my website?
- What are my visitors interested in?
- Does my website meets its business goals?

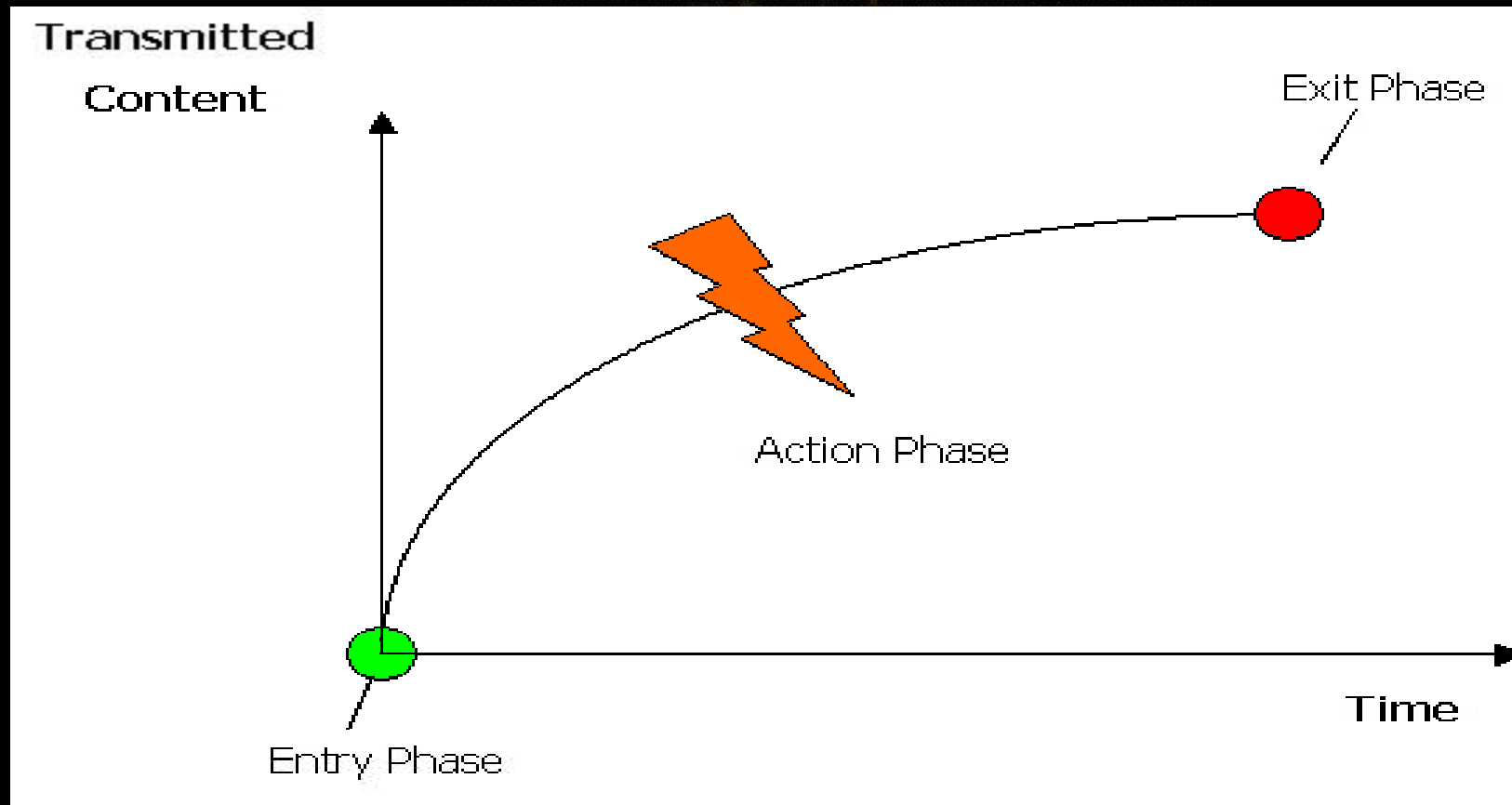
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- **What?**
 - Analysis of the website usage
- **How?**
 - Basic Statistics
 - Clickstream Analysis
 - Segmentation
 - Importance-Performance



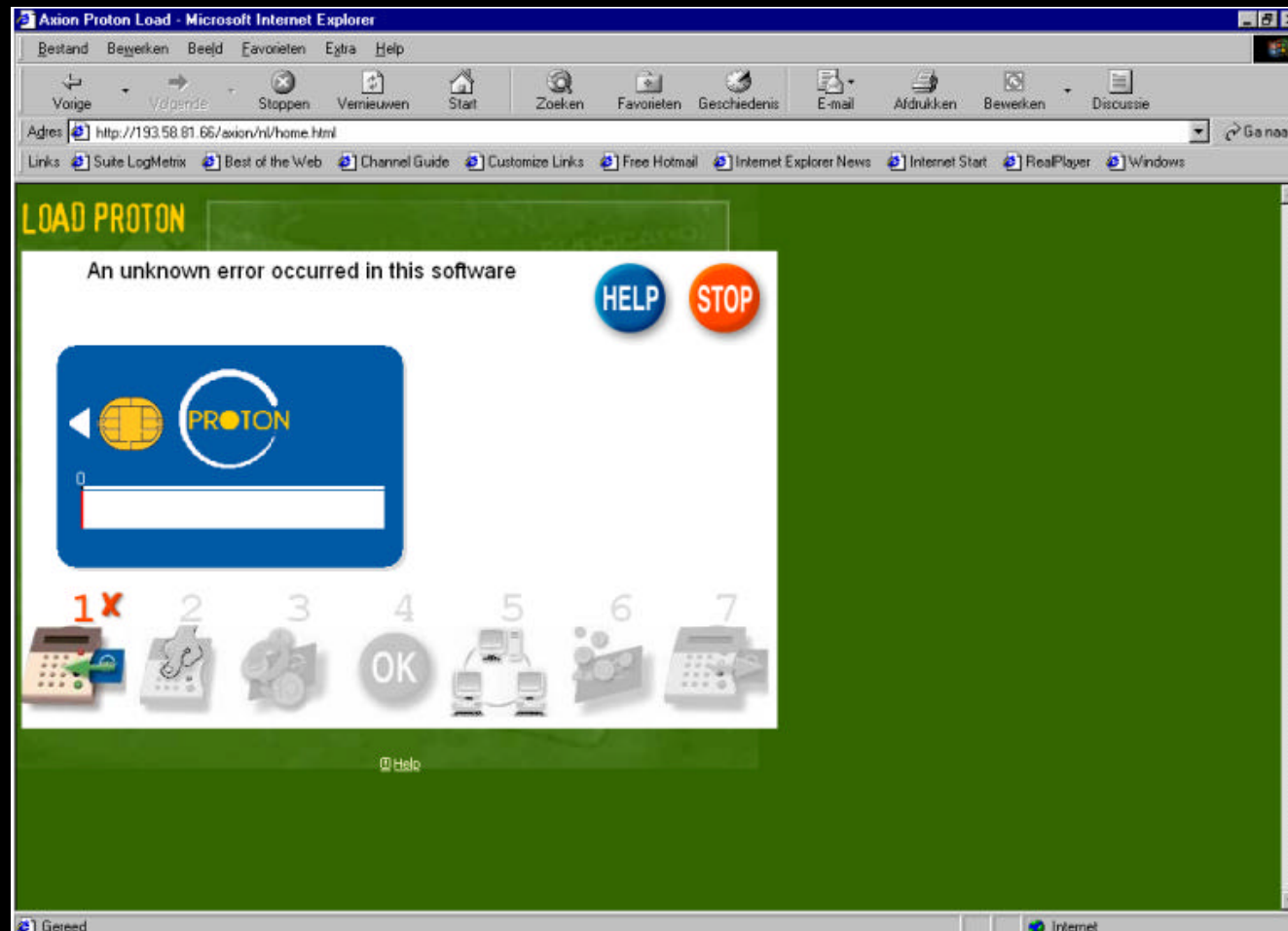




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SITEScan

Entry



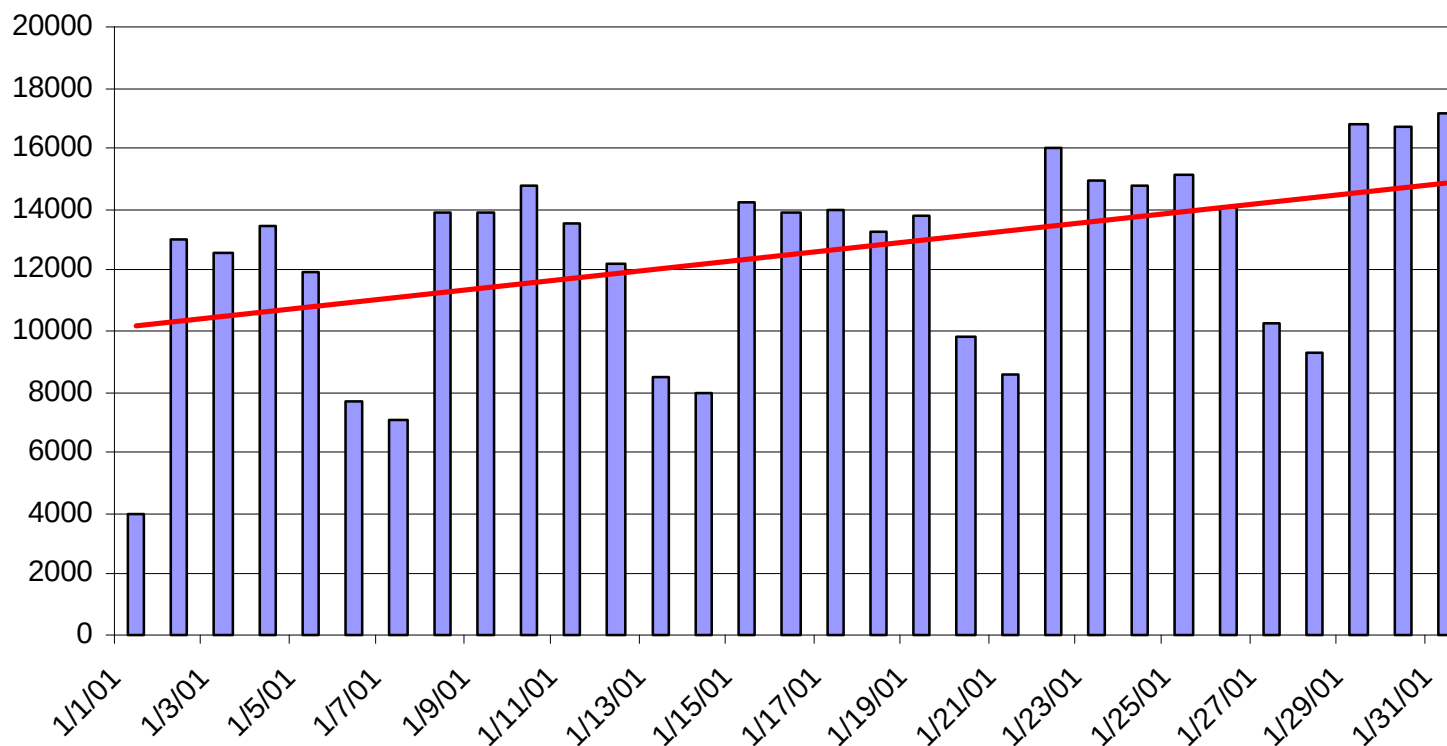


MINE your own business !

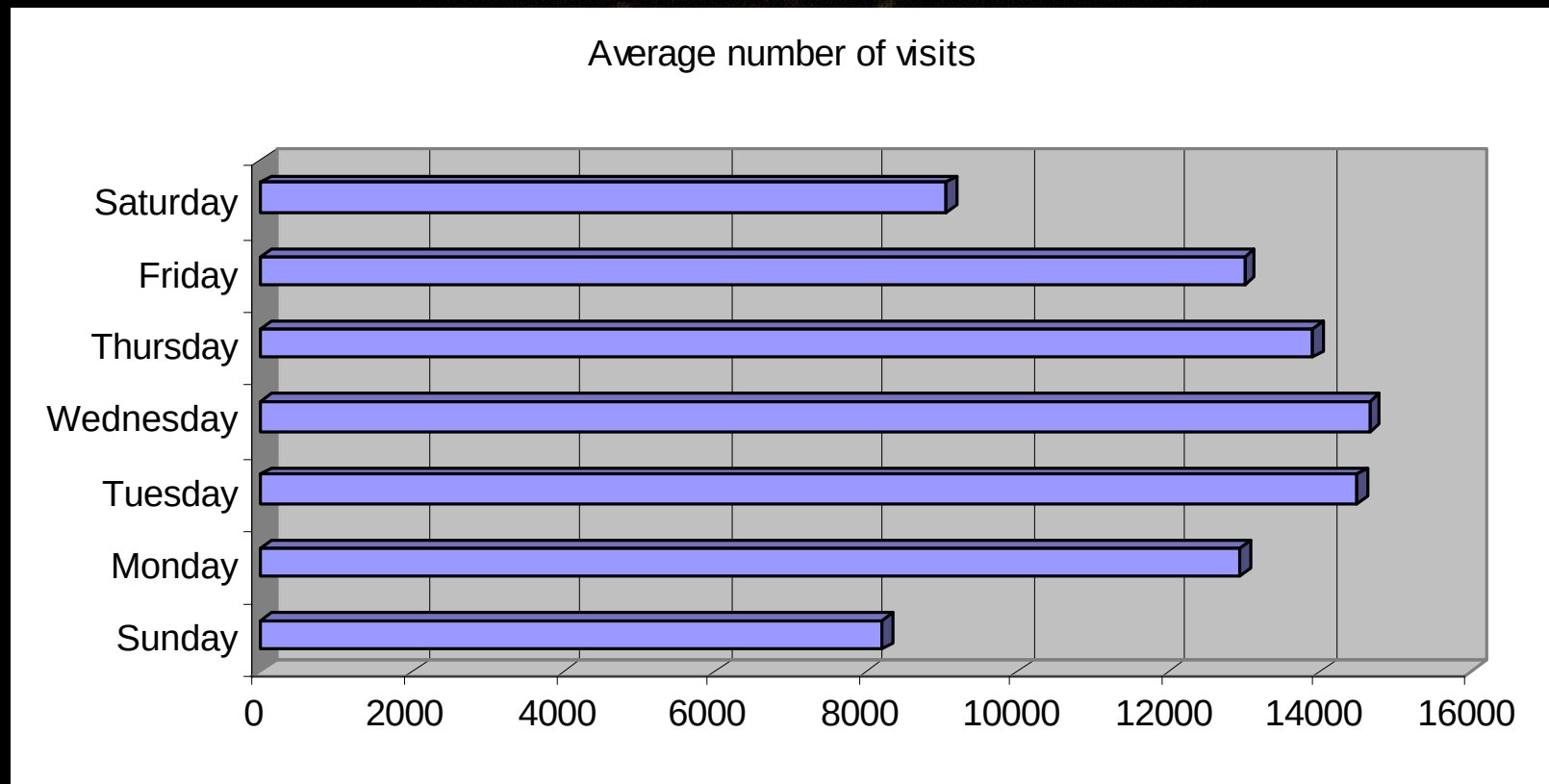
SITEScan

Activity

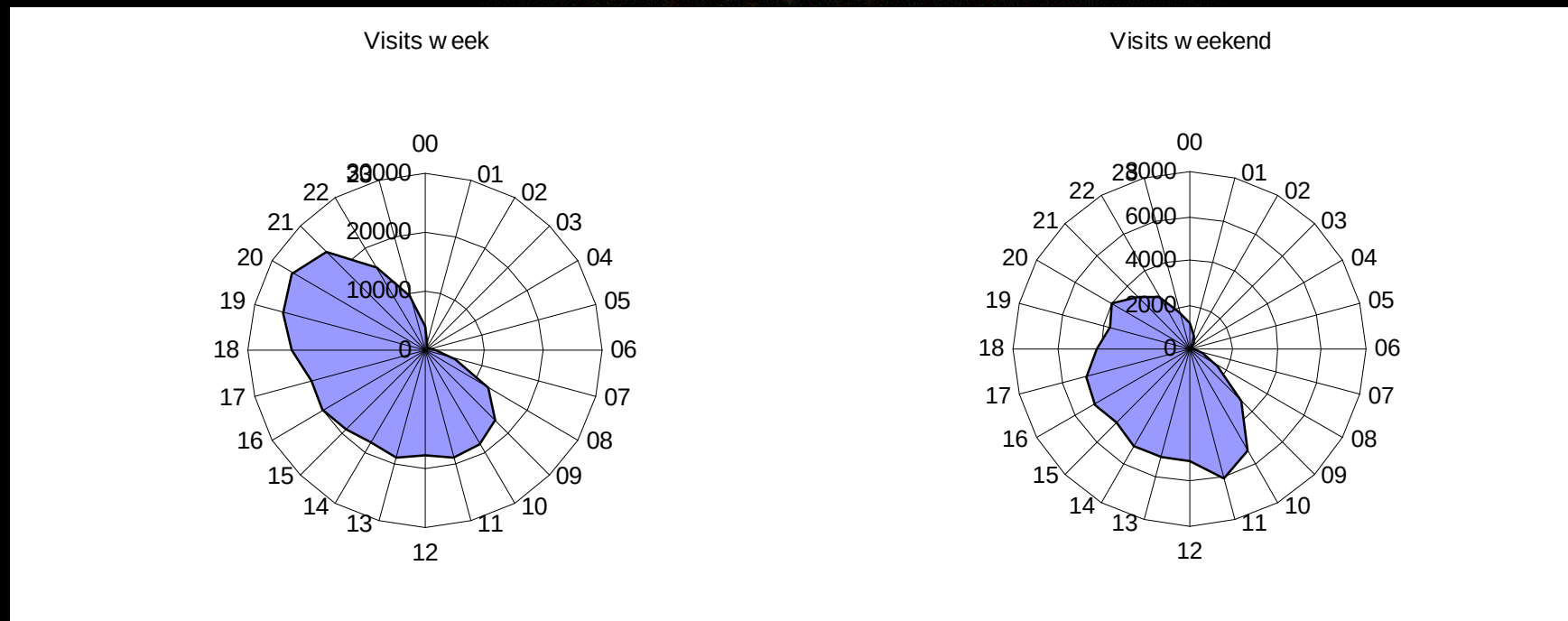
Visits



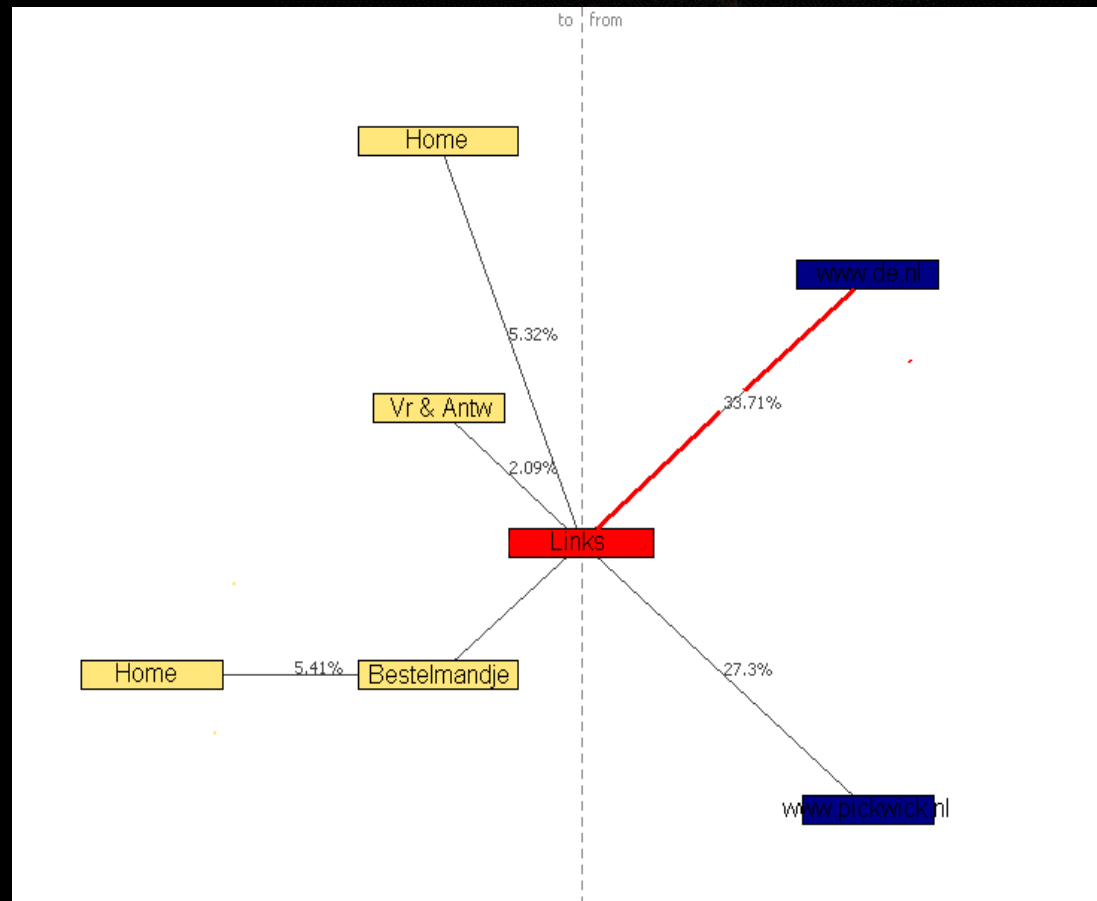
- Days in week



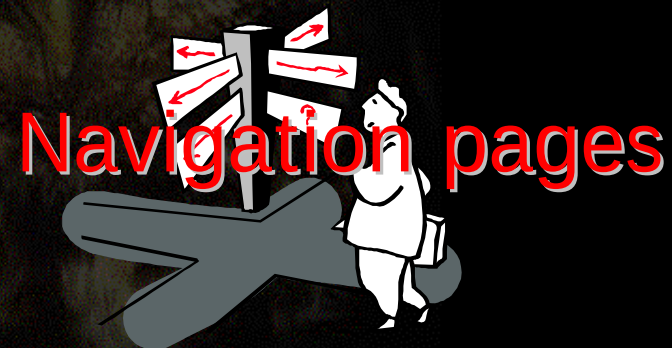
- Week vs. weekend



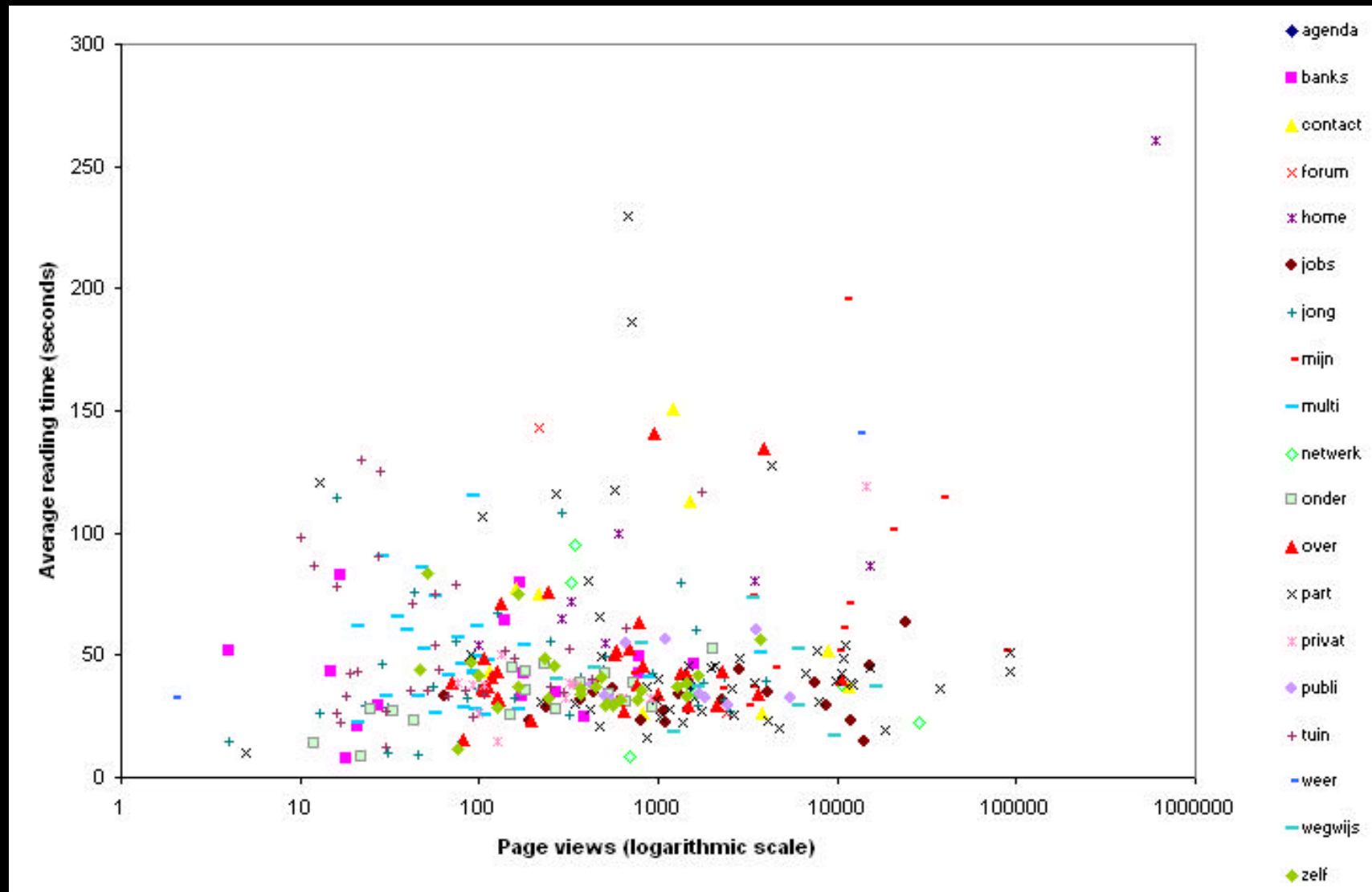
Activity: Clickstream Analysis

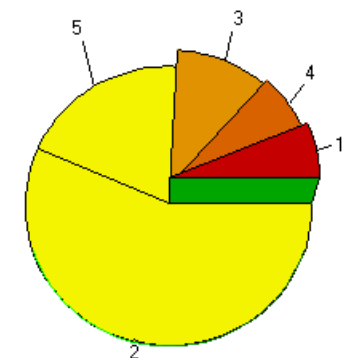
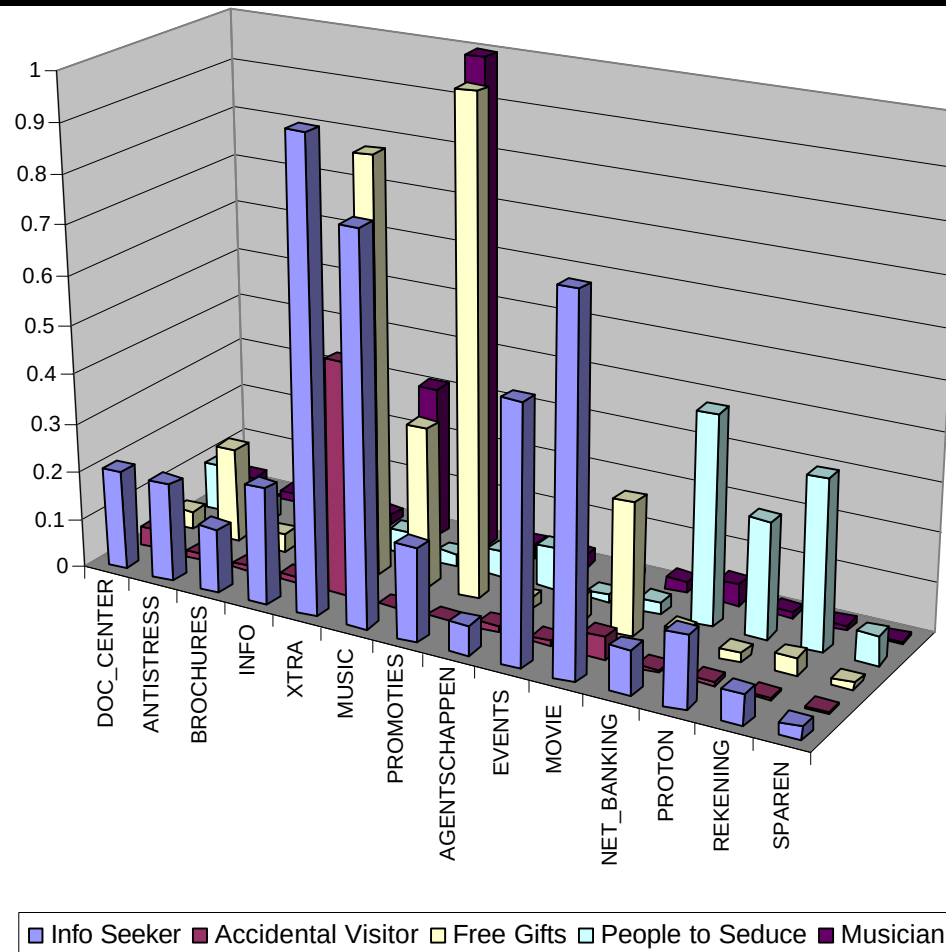


Activity: Importance Performance

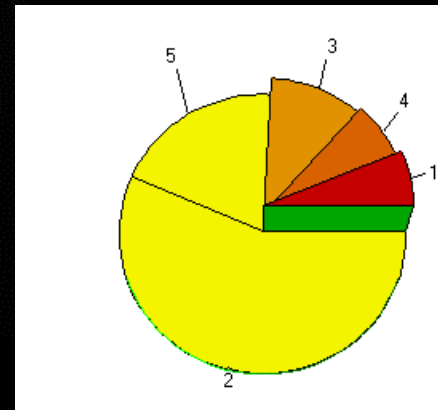
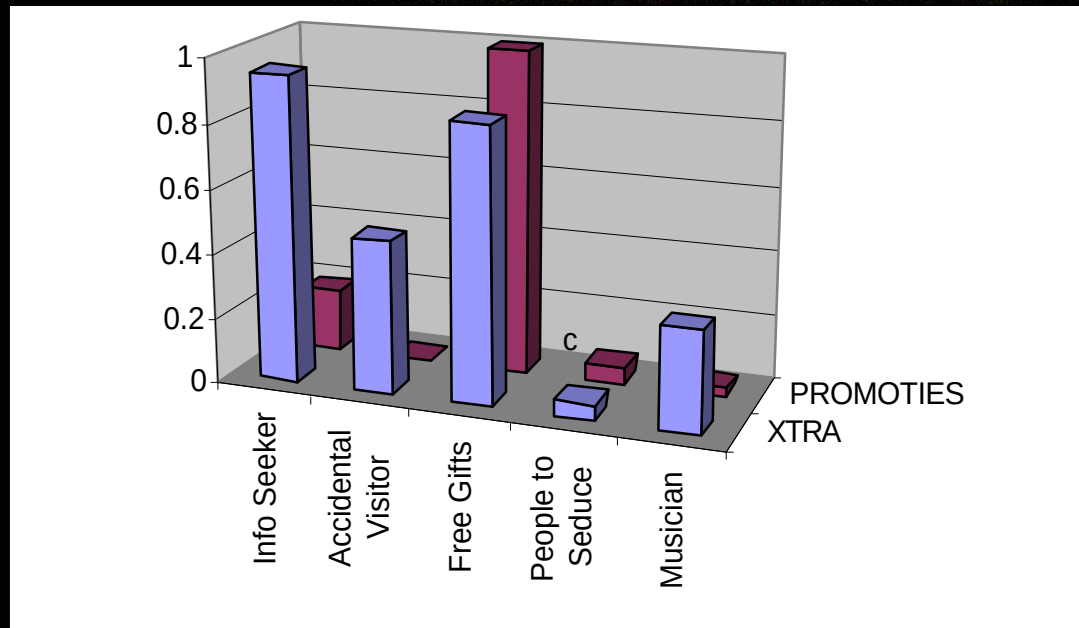


Activity: Importance Performance



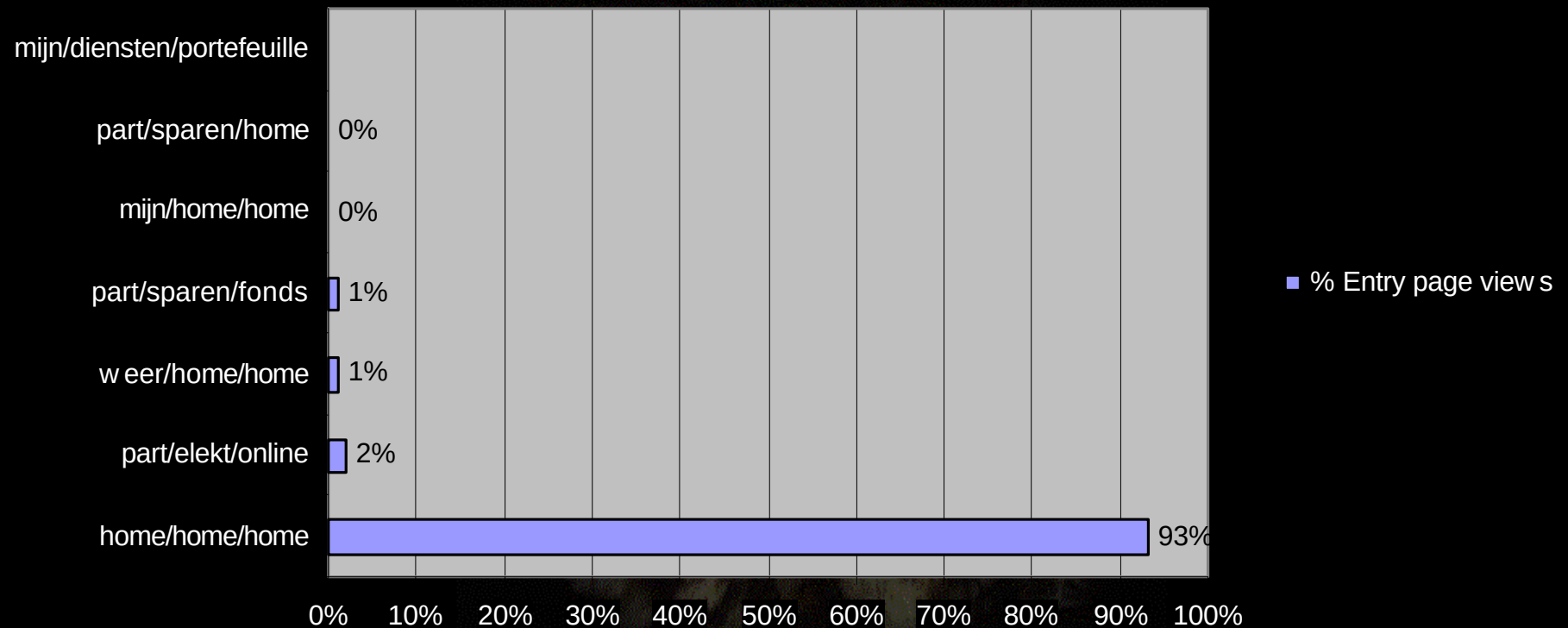


- Bookmark evidence: promotions entry category in 15% of the cases (2% for total website)



- The Dutch-speaking visitors enter the website and proceed almost directly to the QUIZ pages
- The French-speaking surfers first request some other categories before entering the QUIZ category
- From the BANKS point of view: the QUIZ is a rather unsatisfactory exit category
- QUIZ is an isolated category. Introducing a quiz to distribute the free tickets will make the category a satisfactory exit category

% Entry page views



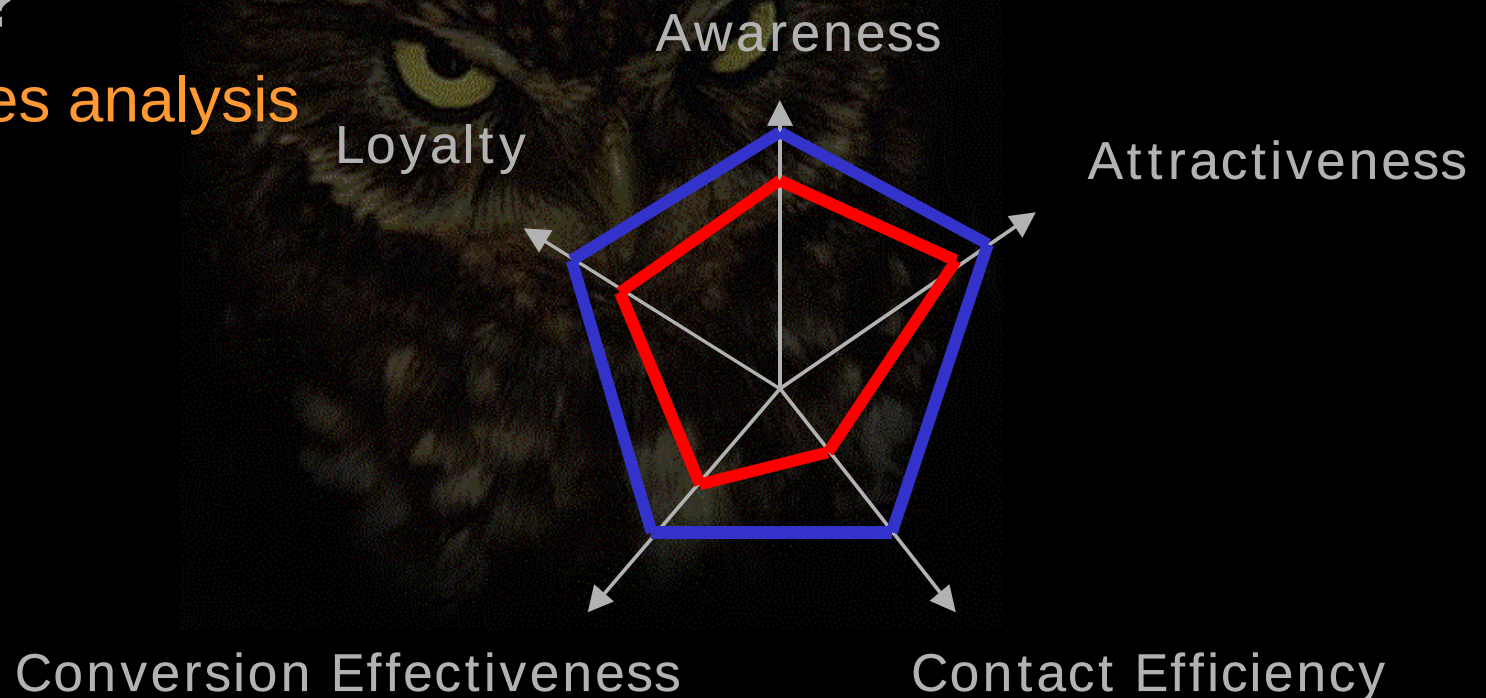
level3	Exit views/Page visits	Exit views/Exit visitors
weer/home/home	84%	2.5
part/euro/faq	80%	1.0
home/home/home	77%	4.3
jong/game/home	72%	2.6
part/sparen/fonds	68%	2.8
mijn/afmelden/home	56%	2.0
downl/downl/downl	54%	1.2
contact/bank/vragen	50%	1.0
tuin/euro/actueel	50%	1.0
jobs/vaca/spec	50%	1.1
part/wonen/simulaties	50%	1.2

- **What ?**

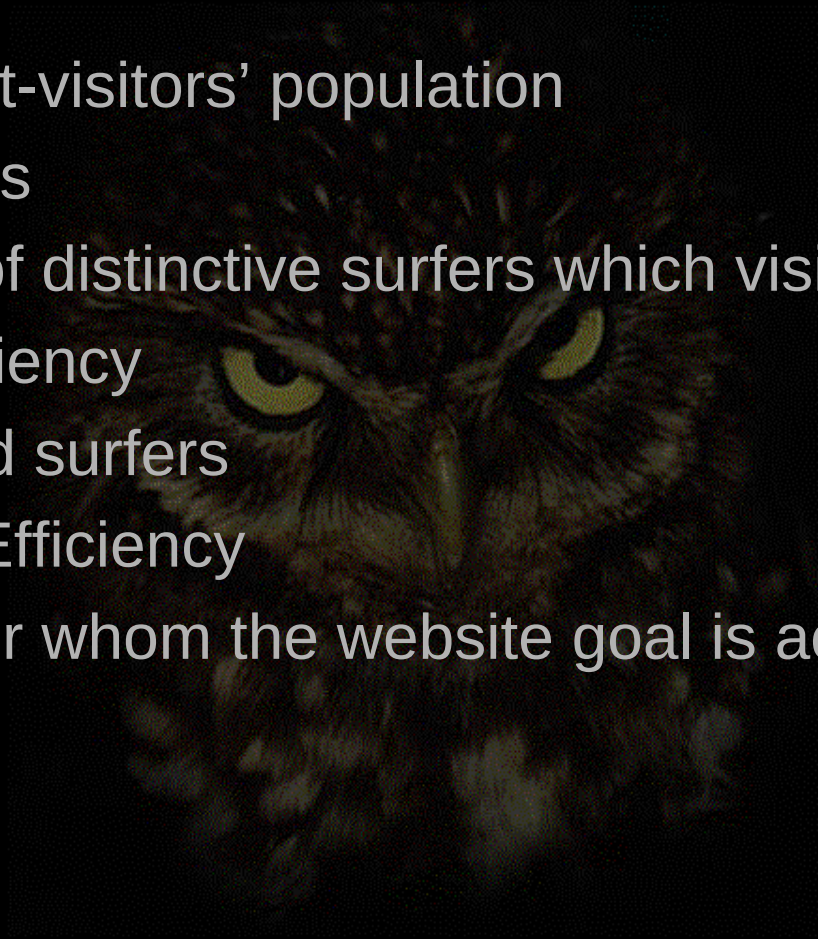
Scanning the website performance conform its STRATegic business goals

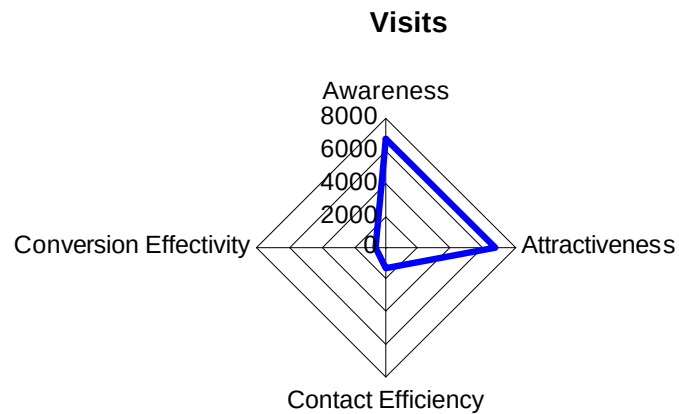
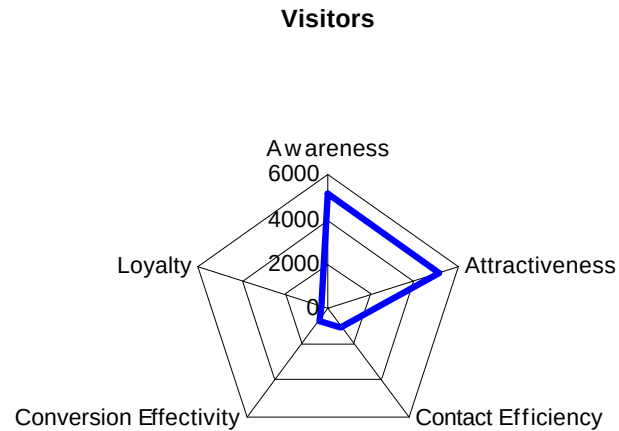
- **How?**

5-axes analysis



- Awareness
initial 'first-visitors' population
- Attractiveness
number of distinctive surfers which visit the site
- Contact Efficiency
interested surfers
- Conversion Efficiency
surfers for whom the website goal is achieved
- Loyalty







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SCOREboard

Behaviour



Opinion



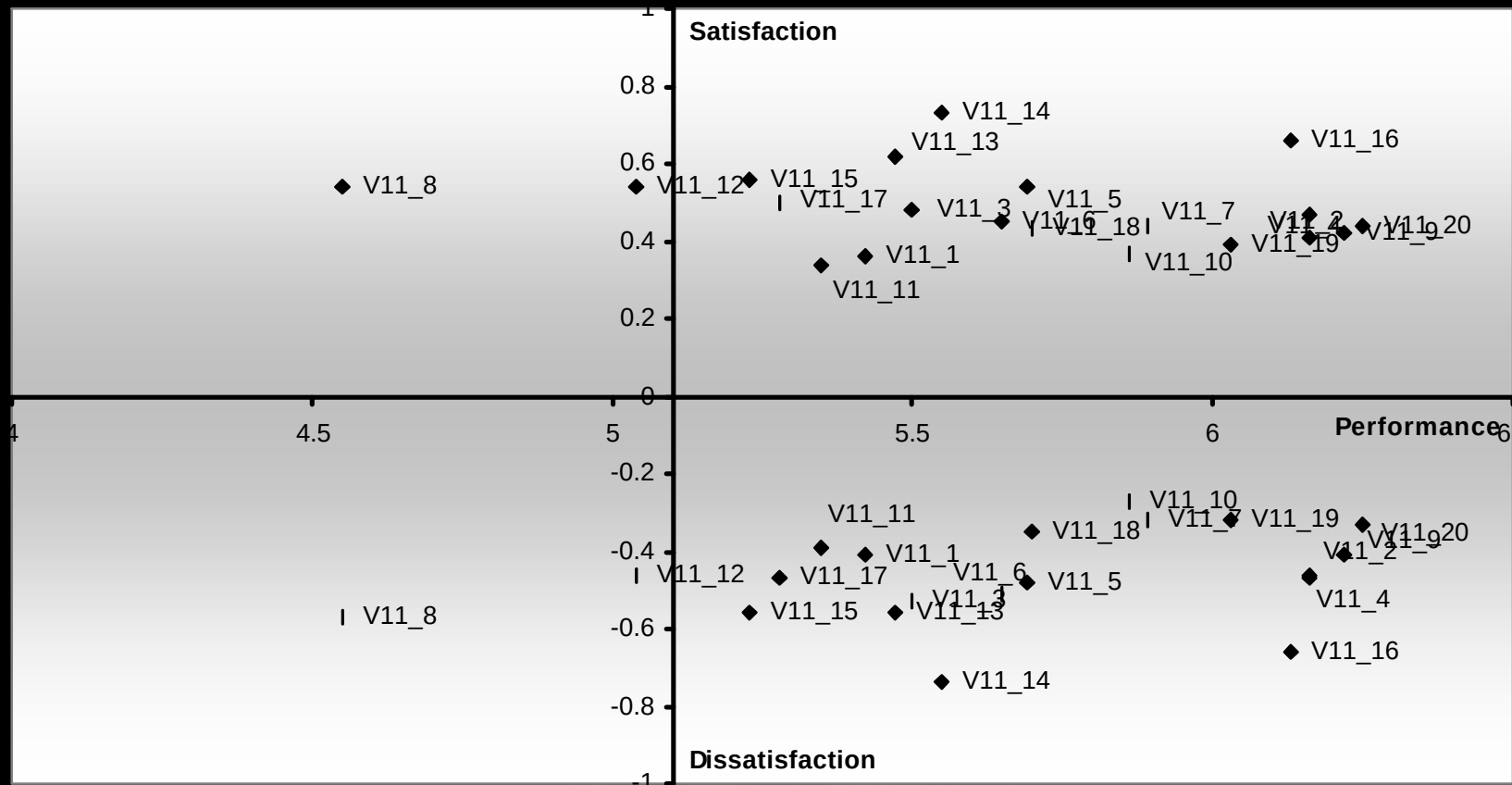
Socio-
demographics



MINE your own business !

SCOREboard

Opinion

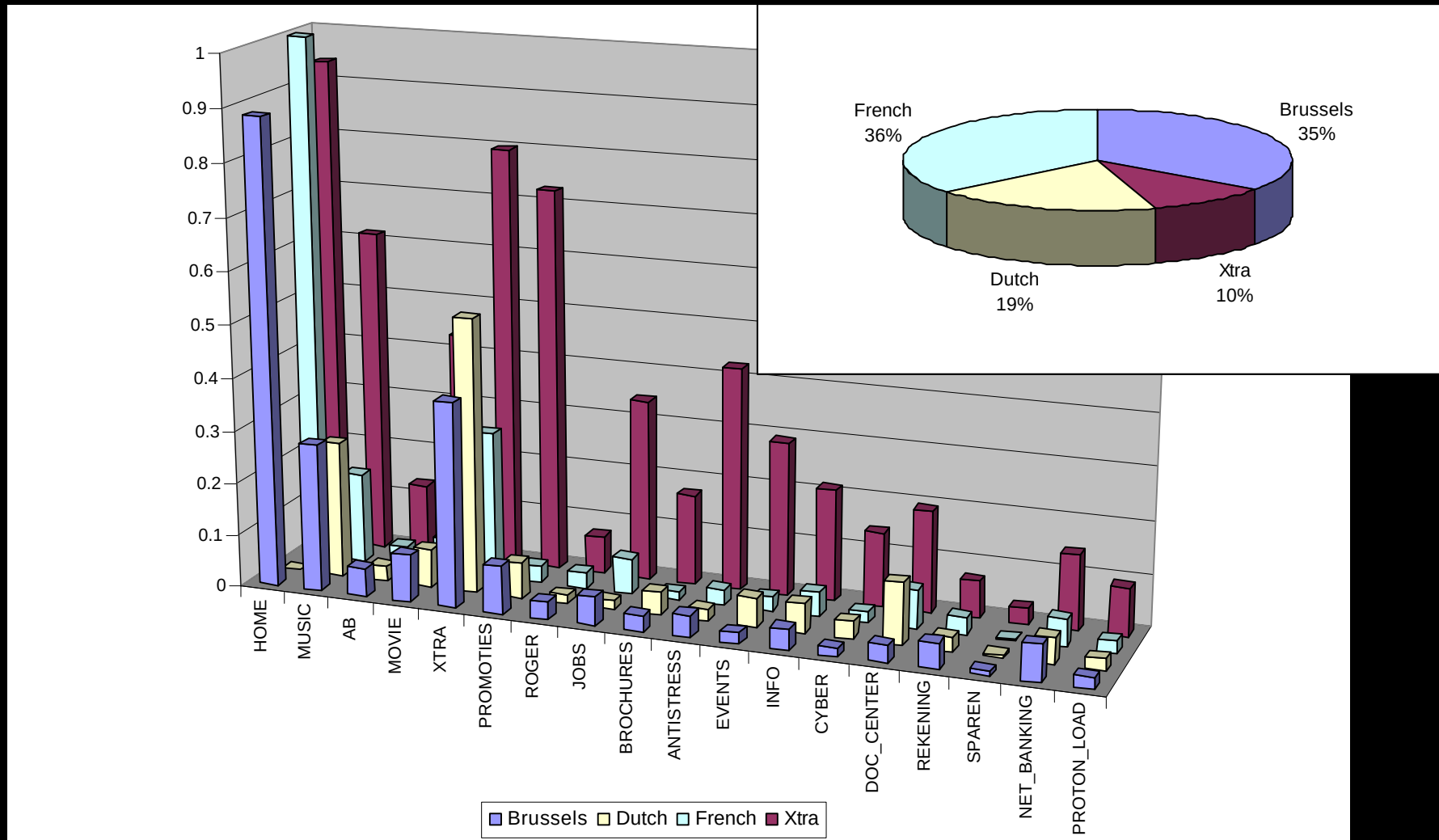




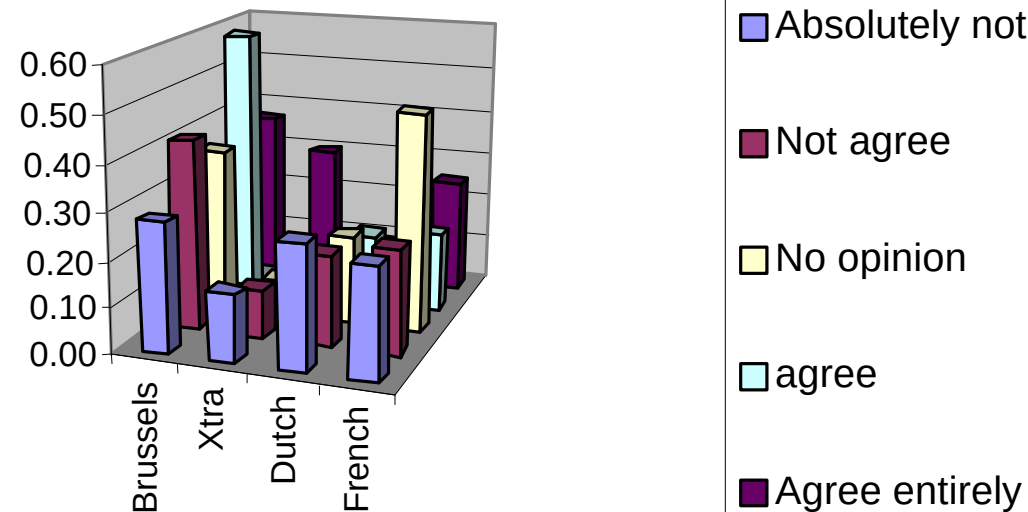
MINE your own business !

SCOREboard

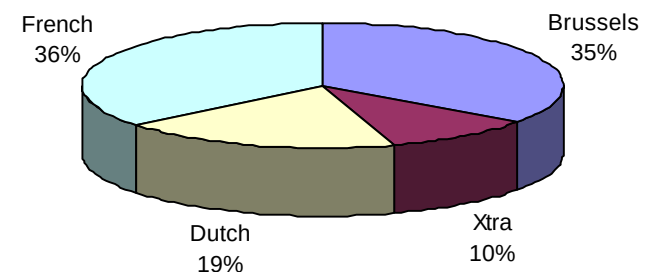
Website Segmentation

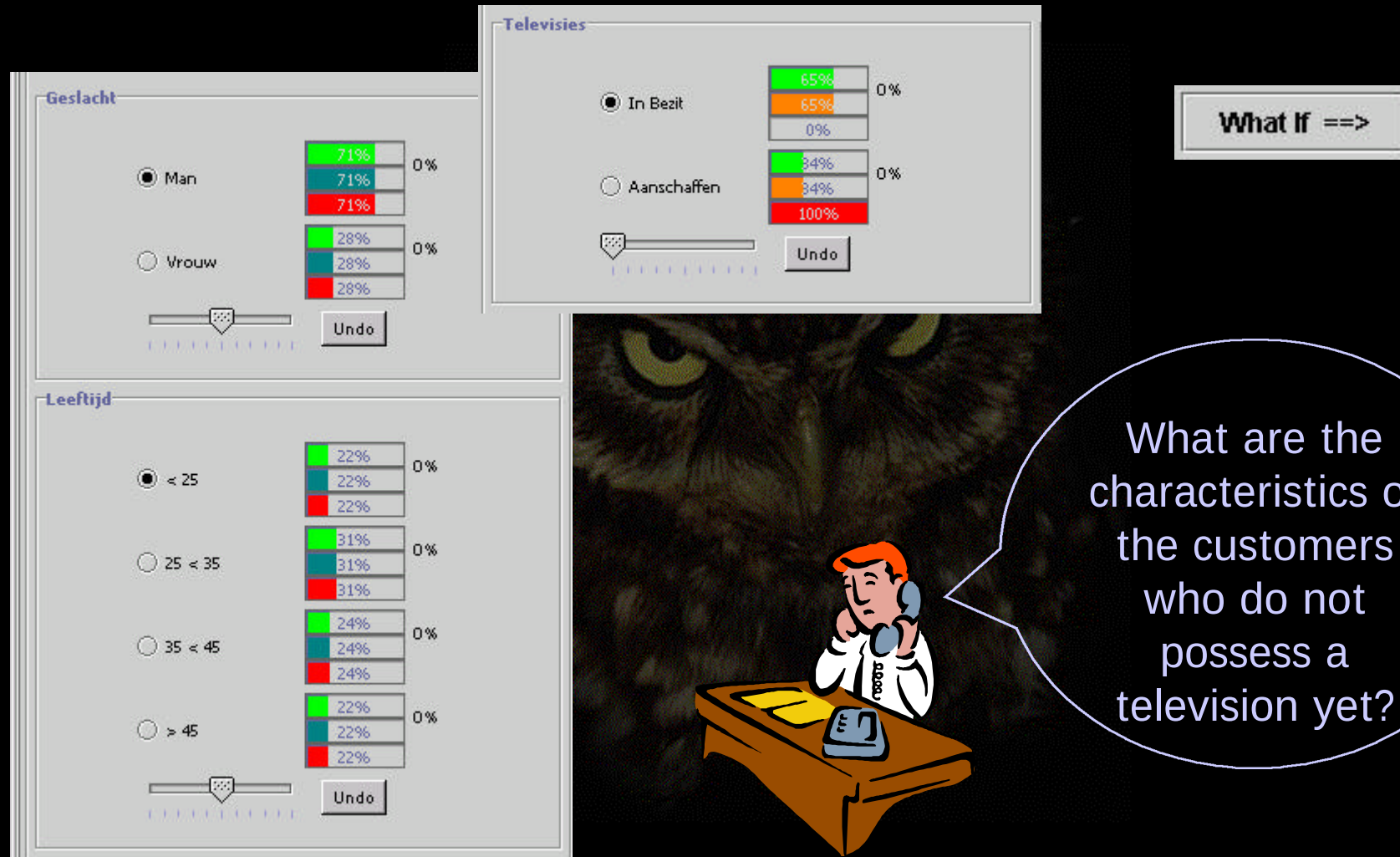


This site treats each person in an individual way?



- 60 % of the people coming from Brussels are attributed to this rather large cluster
- Most of them are aged below 15 year
- The structure of the website is clear for them, since they show a relative high score on this specific variable in the survey'
- The young Brussels inhabitants are solely interested in 'QUIZ' and 'PROMOTION'
- High Satisfaction

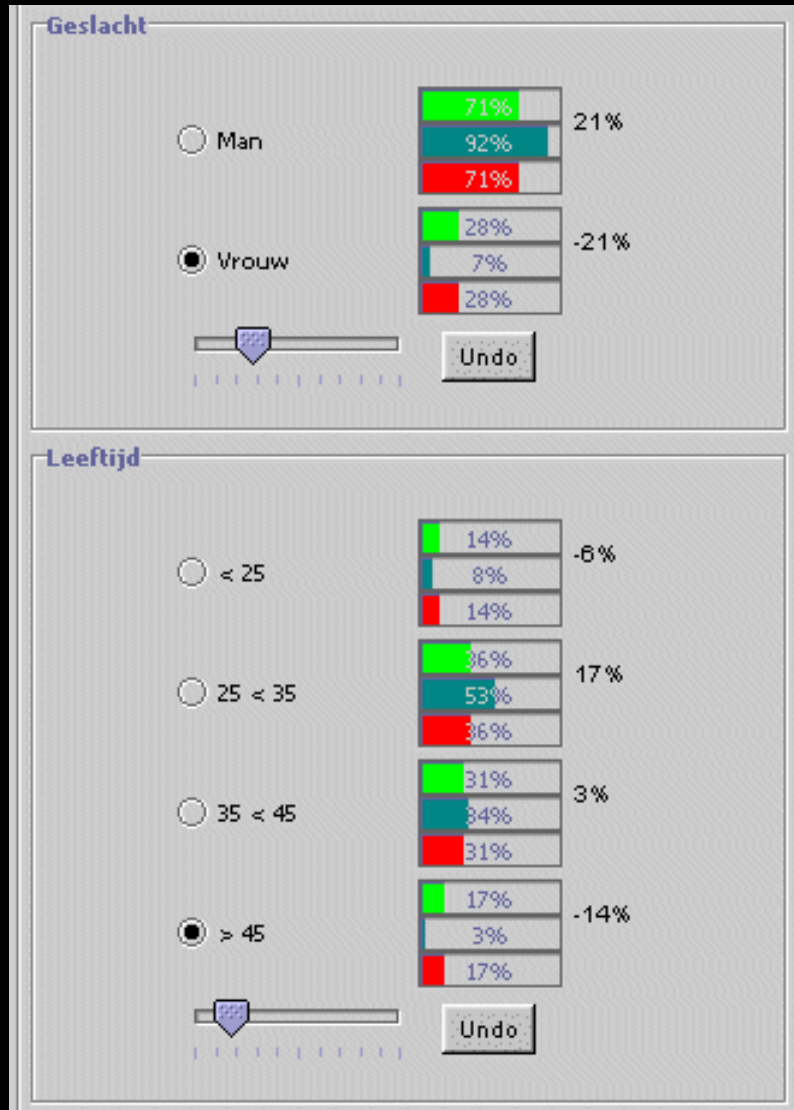






MINE your own business !

SCOREboard



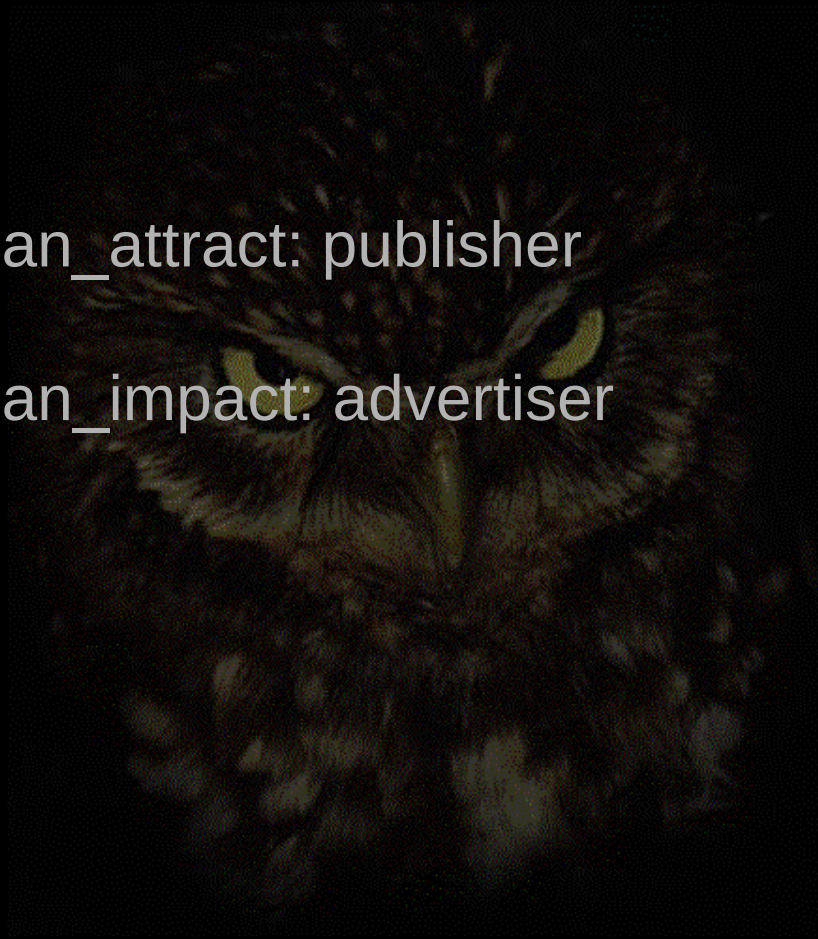
This is interesting!



- An online solution
- Clear overview of section in website subjected to changes
- Perfect match between behaviour and opinion = Performance
- Extensions possible : Clusters, benchmarks, tasks, products ...

2 modules:

- BANscan_attract: publisher
- BANscan_impact: advertiser



- **What ?**

Profile published banners in order to attract new advertisers on your Website

Determine the worth of the offered banner space

- **How?**

SITEscan analysis on 'banner clickers'





MINE your own business !

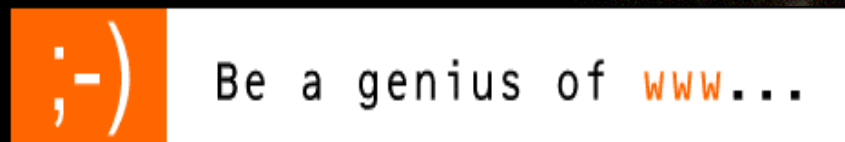
BANscan

BANscan_attract





ALCATEL
INTERNET
STUDENTS
WEEK



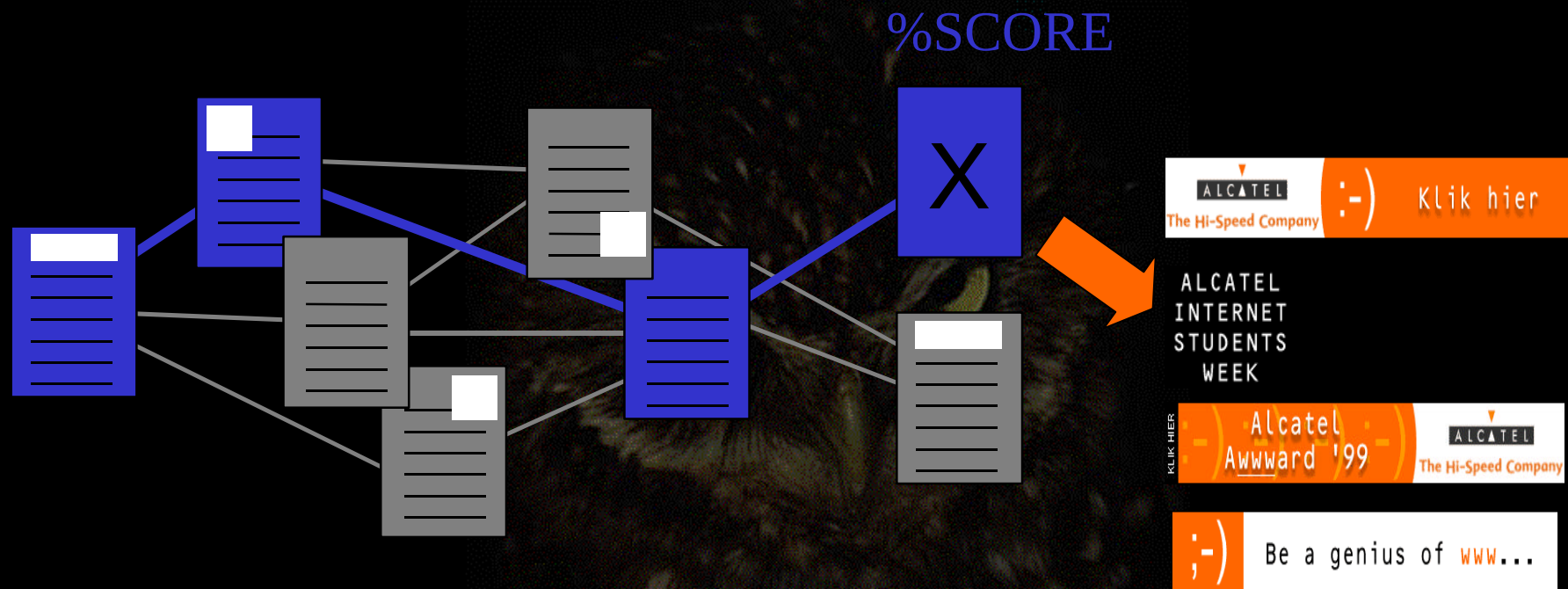
- Which banner attracts which population?
 - Web behaviour
 - Socio-demographic
 - Task usability testing
- Determine the rules engine of your adcampaign manager



MINE your own business !

BANscan

BANscan_attract

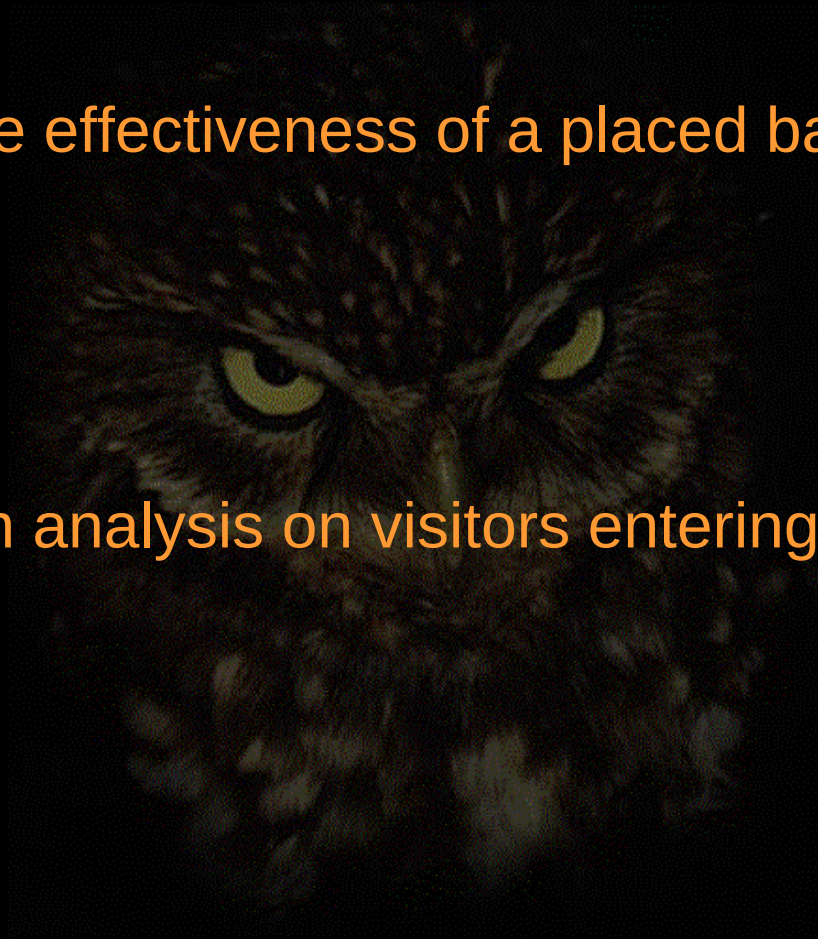


- **What ?**

Evaluate the effectiveness of a placed banner

- **How?**

STRATscan analysis on visitors entering through banner





The screenshot shows the BANscan website interface. At the top, there's a 'GAME SHOP' header with a biohazard icon. Below it, a 'WELKOM IN DE GAMESHOP' banner. A left sidebar contains navigation links: TOP 10, PRE-ORDER, PC GAMES, MAC GAMES, PLAYSTATION, NINTENDO 64, DREAMCAST, LOG-IN, MAND, and HELP. The main content area features a 'PRE-ORDER' section with text: 'Zorg dat u als EERSTE deze game... Hoe? Bestel nu en zodra de game naar u verstuurd. Kijk naar de verschijningsdatum.' Below this, '1 Diablo 2' is listed with a 'Verwachte' date. A 'GAME INFO' section shows 'platform' set to 'pc' and a 'PRE-ORDER' checkbox. A 'TOP 10' list on the right includes: 2. FIFA 2000, 3. Tomb Raider - De laatste onthulling, 4. Quake 3 Arena, 5. The Nomad Soul: Omikron, 6. Gabriel Knight III: Blood of the Damned, 7. The Sims, and 8. Indiana Jones & the Infernal. A large diagonal watermark reading 'Advertiser' is overlaid on the right side of the page.

Who?

Banner Preferences

Behaviour on site



- New way of banking through Internet
- Data mining helps
 - Understand web site usage
 - Improve web site design
 - Improve customer relations