Personalization through Web Mining

New Approaches for One-to-One Marketing

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Contents

- Company Introduction
- The Key Role of Web Mining on e-Loyalty
- Challenges to efficient Web Data Analysis
- The Personalization Loop
- Web Mining – Business Case Financial Services
- Summary
Company Introduction

- Founded 2000
- Spin-Off of Computer Sciences Corporation (CSC)
- Based in Stuttgart, Germany
- **Core Competencies:**
  - Data Mining, Business Intelligence, Analytical CRM, Campaign Management, Data Warehousing, Business Performance Measurement
- Research Partner of LMU University of Munich
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Determine what makes your customer loyal
Identify e-Loyalty Drivers through Web Mining

- Clickstream Analysis to improve Website Usability
- Recommendations based on Clusters of Products and Customers
- Customer-Centric Recommendations
- Single Visit Behaviour vs. Multiple Visit Behaviour
- Search String Analysis to identify Customer Needs (Information, Service & Products)
- Analysis of Clickthrough rates, Conversion rates & Stickiness
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Many companies fail to take full advantage of the deluge of web data because they lack the necessary resources to effectively analyze it. “

Ralph Kimball [2000]

Efficient Web Mining requires a specific infrastructure:

- Sessionization
- Integration of heterogeneous Data Sources (static & dynamic Websites, Flash-Applications, Applets etc.)
- Web Warehousing
- Data Mining
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The Personalization Loop – Overview

Realtime Loop

- Visitor
- Realtime Personalization

Analytical Loop

- Web Application
- Tracking Data
- Data Warehouse
- Web Mining
- Rules
The Personalization Loop – SAS & DynaMine

Diagram showing the personalization loop with the following components:
- WWW
- Web Server
- Application Server
- Business Data
- DynaExecutor
- DynaTracker
- Realtime Base
- Web Data Mart
- WebHound
- DynaGenerator
- Rules (Java, XML)
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Business Case: The Web Mining Process
Business Case: Profiles of Online Visitors

- Onlinebanking/Internetbanking
- Watchlist
- Products
- Stock Exchange Quotations
- New Issues
Business Case: Analysis of Profile “Products”

1. Click

2. Click

3. Click

<table>
<thead>
<tr>
<th>Products</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Giro Account</td>
<td>12.8 %</td>
</tr>
<tr>
<td>VisaCard</td>
<td>29.8 %</td>
</tr>
<tr>
<td>EuroCard</td>
<td>10.1 %</td>
</tr>
<tr>
<td>Deposit Facility</td>
<td>40.3 %</td>
</tr>
<tr>
<td>Forms</td>
<td>15.6 %</td>
</tr>
</tbody>
</table>
Business Case: Customer Interaction

Customer Retention

Customer Acquisition

"Prospects"

"Anonyms"

"Customers"

Degree of Information

Degree of Reaction
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Web-Personalization efforts should be embedded in an overall Multi-Channel-Approach:

1. Intelligent Web Data Integration & Web Warehousing
2. Realtime Data Delivery & Aggregation
3. Optimization of Data Structures to support different Data Mining Algorithms
4. Web Mining and Retrieval of Visitor Knowledge
5. Personalized Interaction through individualized Content
6. Automated Response Measurement
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