ESA: Enterprise Social Aggregator for SMEs

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Contribution of UNIBA (P2)

- Investigation on the role of social media in cognitive and affective trust building in customer-supplier relationships.
- The experiments involved two local SMEs
  - Cake Design, a manufacturer of bakery products
  - Frulez, an organic restaurant
- Both started their business about two years ago
- They are both very active in managing the online image of their brand by exploiting social media
Contribution of UNIBA (P2)

- Development of the Enterprise Social Aggregator (ESA) tool
  - Dashboard for the management of SME’s profiles on online social networks
  - Analysis of aggregated data: information that a SME is directly posting and what customers say about the SME on social networks
Contribution of UNIBA (P2)

- Tutorial on Social Network and Social Network Analysis (SNA)
  - Half-day tutorial on how SNA concepts and measures can be used to understand and to discover the actual social processes going on social networking in distributed settings
  - Delivered at ICGSE 2013, held in Bari (August 2013)
Social Software

- Large diffusion among individuals and companies
  - Facilitates communication and interaction
- Benefit for large enterprises as well as SME
  - Modern version of traditional word of mouth (knowledge sharing)
- Digital brand identity
  - Trust-based relationship with customers
Social Aggregator for SME

- Downside of social software at work
  - Companies’ digital brand identity spread on multiple social networks

- Our proposal
  - Collecting and aggregating in one place all the information about a SME
  - What a SME posts directly from their accounts
  - What customers say about a SME on social networks

- Purpose
  - Monitor customers perceptions, behaviors, trends
  - Social network analysis for aggregate data (e.g., most popular posts, most active customers)
Enterprise Social Aggregator (ESA)

Clients

Proxy

Services

http://esa.codeplex.com
Proxy Server

- Uses OAuth authorization protocol (stores credentials but no passwords)
- Retrieves and caches social content
- Aggregated data available via RESTful web services
- Configured via web application
- Collects and reports SNA metrics on aggregated data
Clients

- May be implemented for a number of platforms
  - HTML5 web apps
  - Mobile apps (iOS, Android, …)
  - CMS extensions (Wordpress, Drupal, …)
  - Rich-client desktop
Welcome to the Intersocial web site. Intersocial is a project financed by the European Territorial Cooperation Operational Programme "Greece-Italy" 2007-2013.

In recent years, we have witnessed an unprecedented growth of social networking. The ever-increasing list of such networks include content sharing sites such as YouTube and Flickr, social networking platforms such as Facebook and Myspace, blogs, web forums, social bookmarking sites such as Delicious and massive online message exchange such as Twitter.

The INTER-SOCIAL project aims at exploring social networking to enhance the competitiveness of SMEs in the region. Social networks offer new means and forums for world-wide product promotion as well as huge repositories of data for advanced market analysis and trend identification. In particular, the project aims at promoting advanced new technologies as related to the use of social networking to both (a) improve the web presence of SMEs and (b) use information provided by such sites for targeting advertisement and adaptive service provision.

The project will develop and deploy appropriate innovation devices (mechanisms, policies, software tools) to provide the following outputs: the deployment of social web locally adapted appropriately for specific SMEs, monitoring, archiving and analyzing social data, targeted online advertisement and product promotion through social networks and pilot use, move SMEs to highly efficient and effortless e-commerce.
The slides of the tutorial on Social Network Analysis for Global Software Engineering are now available at http://tiny.cc/SNA4GSE #icgse13

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RT @Juergen_Muench: Many thanks to @lanuble and the #icgse13 team for a great and well-organized IEEE @ICGSE conference in Ban! http://t....

RT @darja_smite: Suggestion for
Cross posting

Allows SMEs to simultaneously update their status on all the social media profiles managed through the ESA tool.
Mention Timeline

Aggregated collection of others’ posts on social media in which the SME is tagged
Search

Available on both Mention and Home Timelines

Search by keyword or hashtag
ESA insights

- ESA calculates statistics on the aggregated data from social media.
- Exploits the Facebook and Twitter API
- The measurement schema is described according to the Goal-Question-Metrics paradigm (GQM) for the formalization of measurement models
  - Each goal is translated into questions
  - Metrics are finally defined and associated with every question to answer it in a measurable way
  - Questions are denoted as $Q$ while associated metrics are denoted as $M$
ESA Insights

- **Goal G1** is to support the evaluation of web marketing strategies involving the use of social media

- **Q1: What is the performance and level of popularity of my social media profiles?**
  - **M1.1: Total Reach**, as the number of people who have seen your post. It considers any of the possible activities of the people in the community, including posts, new fans, mentions, check-ins during the last month;
  - **M1.2: Page Engaged Users**, as the number of users who interacted with the SME’s profile in the last month, either by clicking on, liking or commenting on a SME’s post;
  - **M1.3: Number of Mentions**, it is analogous to M1.2 but calculated on Twitter mentions.
ESA Insights

- Q2: What is the level of engagement of my customers respect to the SME’s posts on the social media profiles? What are the posts with the higher level of popularity and users’ engagement?
  - M2.1: List of individual posts of the SMEs on the Facebook page
    - For each post, ESA provides the Total Reach and Engagement (clicks, likes, comments and shares)
    - The posts are displayed in chronological order
  - M2.2: List of individual posts of the SMEs on the Facebook page
    - For each post, ESA provides the corresponding Total Reach and Engagement, calculated as for M2.1.
    - The posts are displayed in chronological order
Total Reach

Facebook Metrics

Total Reach

The number of people who have seen any content associated with your Page in the last month.
### Reach of individual posts

<table>
<thead>
<tr>
<th>Post</th>
<th>Reach</th>
<th>Engagement</th>
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| The slides of the tutorial on Social Network Analysis for Global Software Engineering are now available at http://tin... | Reach:6 | Post clicks:0  
Likes, comments & shares:0 |
| Follow us on Twitter https://twitter.com/ICGSE and comment using #icgse13 | Reach:48 | Post clicks:15  
Likes, comments & shares:3 |
| Registration desk will open on Monday, Aug 26 at 8:30: Looking forward to meeting you | Reach:182 | Post clicks:5  
Likes, comments & shares:7 |
Page Engaged Users

The number of people who engaged with your Page in the last month. Engagement includes any click or story created.
Thanks!

http://esa.codeplex.com
http://mobileesa.codeplex.com