



User Engagement Analyzer - An RoR Case Study

Executive Summary:

Social media has brought in a sea change in the way people make their purchasing decisions. The stark shift in the balance of power between brands and consumers is possible in these times because of the various social media platforms that act as gigantic megaphones for the voice of the customer, a key in marketing. According to a McKinsey Study, ***“marketing-inspired word-of-mouth generates more than twice the sales of paid advertising, and these customers have a 37% higher retention rate”*** (Source: McKinsey report). Influencer marketing has fast becoming a norm in marketing these days owing to purchase decisions inspired by peer recommendations and their amplification through social media.

This was the basis of the work that Mindfire Solutions has been doing for our client, a technology company providing marketing services to help brands spread their message. It specializes in influencer based digital marketing campaigns that can be shared across various social media platforms (viz. Instagram, Snapchat, Facebook etc.). This application rests on three pillars i.e Influencer selection, Content Creation and Reporting. It also has a unique Ranking feature which helps to find the right influencer on individual social media platforms.



Initially, this project was carried out to analyze the engagements and users' activity on a particular brand's Instagram account. The application allowed the companies/brands to create their own account (admin account) and add the Instagram accounts related to their company. Using the mobile app, users can publish the approved and scheduled media on Instagram. The application would pull all recent media and its engaged users for each registered Instagram account periodically and subsequently, the data (number of likes, comments and engagements) is presented in a report.

About the client:

Client: Advertising and Social Media consultant

Industry: Advertising and Social Media

Location: USA

Technologies Used:

ROR, MongoDB, JQuery, MySQL, iOS 6.0 onwards, Xcode 6.0



Business Situation:

Our client who operates in the Advertising and Social Media domain approached us with a concept wherein Influencers who are active on social media and have a large number of followers would actually help drive traffic via various social media platforms for particular brands. With increasing popularity of Instagram and larger usage of smart phones and tablets, Instagram based influencer marketing has a great future. Our clients wanted to tap into this huge potential and make a ready solution for brands to evaluate their campaigns. A complex algorithm that connected influencer popularity, number of followers, quality of content shared gave rise to an innovative tool that helped to prioritize influencers and campaigns effectively.

The Mindfire Solution:

Mindfire Solutions and the client collaborated to develop a novel and robust product that we are all proud of. The software development process proceeded in scheduled stages and subsequently worked upon to produce a scalable solution.

While the entire system was built on RoR framework, the first requirement was that of an iOS app. The mobile app development team developed this app that works in tandem with the web application. The users can sign in with the same credentials as they use in the web application. There is a profile section which displays the Instagram accounts that are linked with that particular account which were added using Campaign web application. The user/admin can create the content by submitting a photo (either by clicking a photo using the camera or by choosing the photo from the camera roll/saved albums). They can also schedule the content by specifying the scheduled date and time.

When the content is submitted, it is set for a scheduled date. When the due date and time arrive, the content can be seen in the post section. The user/admin can post the content to Instagram by swiping right in the post section. The user/admin can delete or edit the content created by them in both the sections (Content and Post). The administrator at the backend facilitates all the administrator tasks including campaign/brand story management, user management, Content Approval/Rejection, Analytics Tracking, Payment for influencers and Influencers Management. It also acts as an API backend for the mobile application. The general flow of a campaign starts from creating a campaign & brand story, then inviting influencers for the campaign, accepting the content from them for approval and marking them good to post. Finally the influencer has to post the content (media and caption) to their Instagram account, which will trigger a background job on server to track the media id from Instagram and starts downloading the engagements for the media.

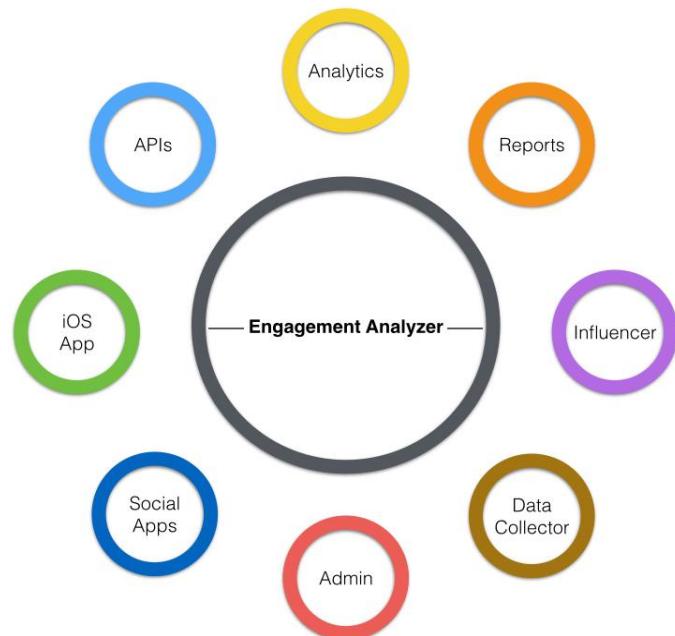


Fig 1: Illustration showing the various components of the User Engagement Analyzer App

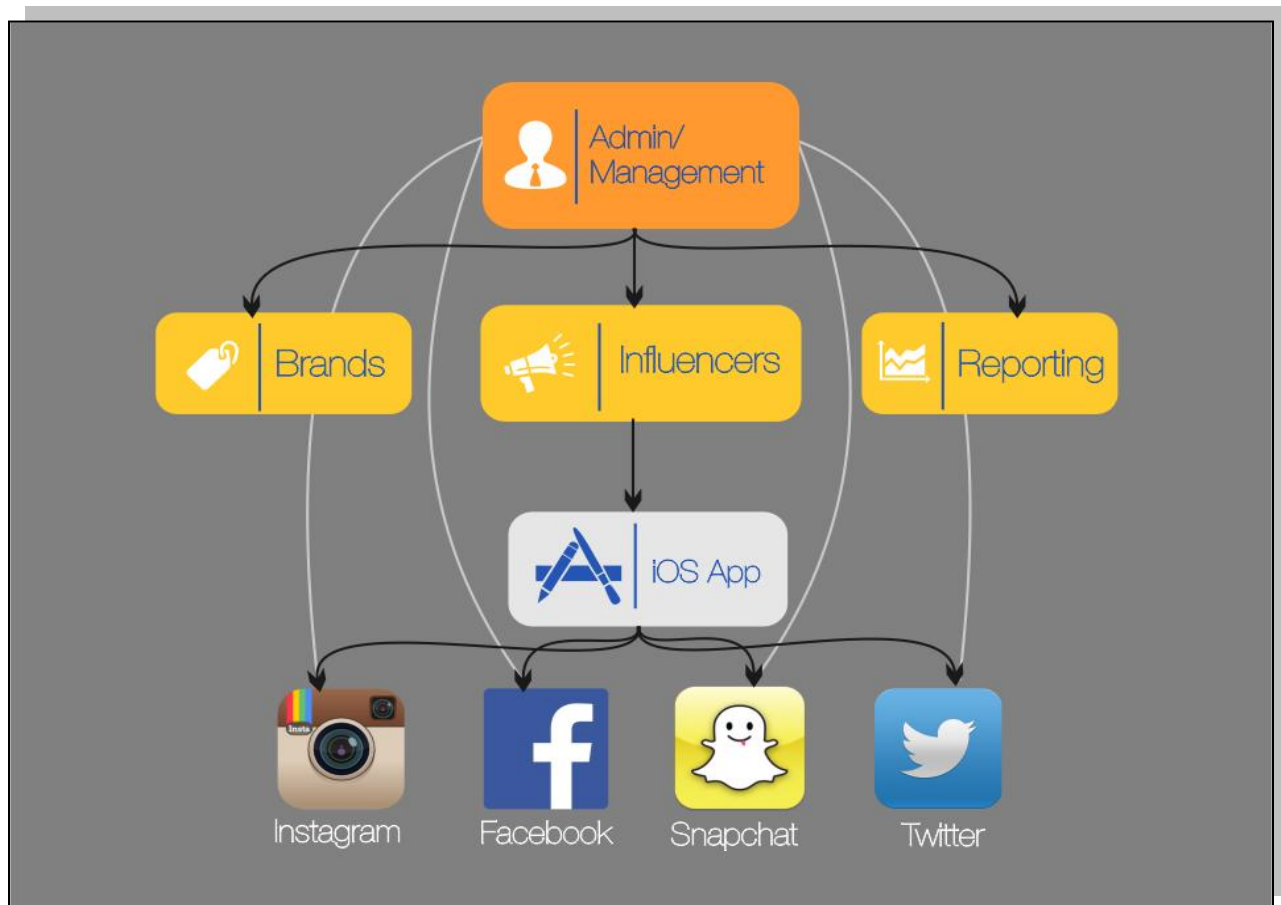


The application allows the companies/brands to create their own account (admin account) and add the Instagram accounts related to their company. Also the Company's admin can add multiple users such as community manager and senior community manager who can access the same company account with some restricted permissions. The application is used to pull out all recent media and its engaged users for each registered Instagram account periodically. Based on the Instagram accounts media data and engaged user data, the application shows various charts. Also there is another section in the application which allows the users to upload media for various Instagram accounts and schedule the time to publish the media on Instagram. The application also has several web services which are used by a mobile app.

In order to be more targeted in their approach, companies can make use of a ranking system that rates the influencers on the basis of the number of followers, subject matter expertise on specific brands, influencer popularity and quality of shared content. Through the mobile app the users can publish the approved and scheduled media on Instagram. After the media is published on Instagram, the data(number of likes, comments and engagements) related to the Instagram media collected and the effectiveness of a campaign is measured via graphical representations.

Architecture Diagram:

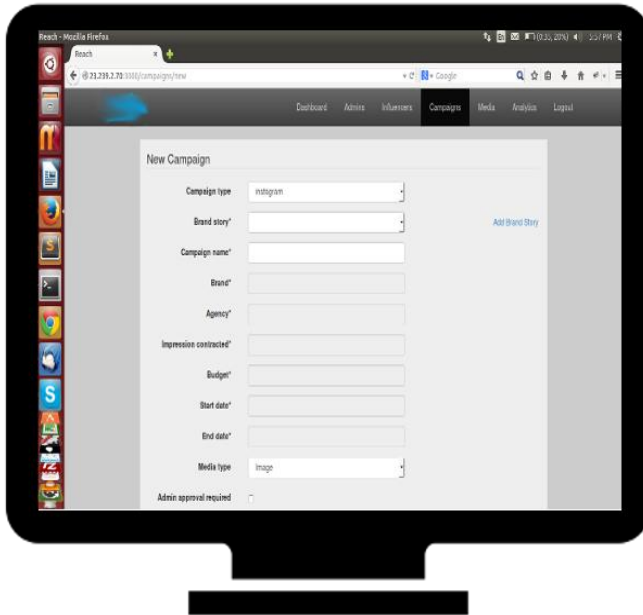
The following architecture diagram shows in detail how the app interacts with the server, admin, brands, influencers and various social media channels.



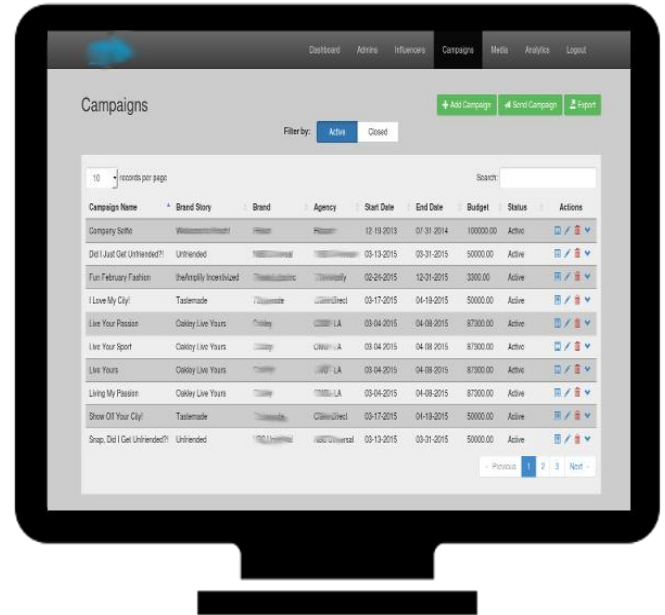


Screenshots:

The following screenshots shows a glimpse of the app and some of its several features:



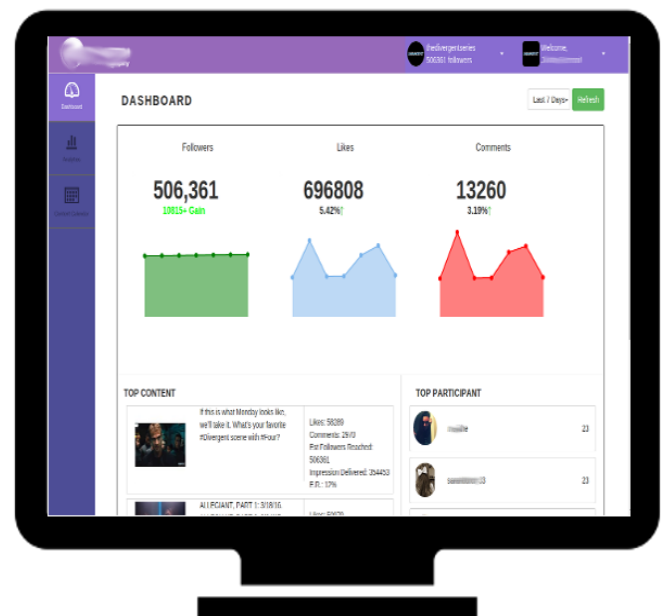
Screenshot 1: New Campaign page



Screenshot 2: Consolidated Campaigns page



Screenshot 3: Page showing the List of Influencers



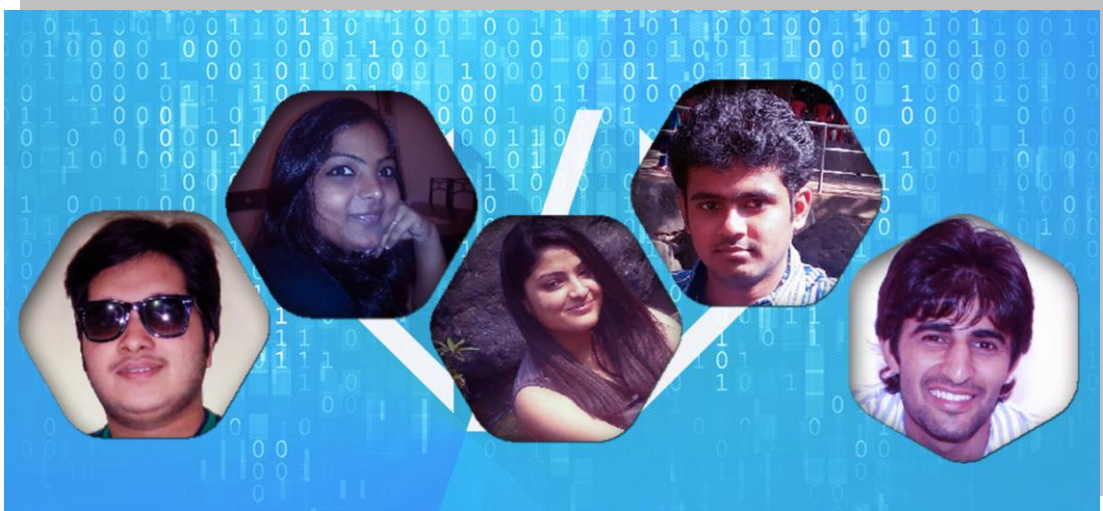
Screenshot 4: Dashboard to measure campaign effectiveness



Future Relationship:

This project saw the best practices followed in Agile methodologies being followed throughout the entire software development phase. The use of indigenous project status reporting tools ensured that there was transparency and clear communication between both the sides. The client and Mindfire collaborated to develop a product that was both robust and scalable. As the number of influencers and brands using the application grew Mindfire suggested the use of MongoDB over MySQL for accommodating such vast information.

Mindfire Solutions remains the primary software services provider for the company and as the company added more social networking platforms viz. Facebook, SnapChat, etc. there was an opportunity for other Mindfireans to become a part of this project. This project resulted in a satisfying work experience and offered a plethora of learning opportunities for the software engineers involved in the project.



The Team: (From left to right) Bhaskar, Neha, Shatabdi, Rakesh and Manoj



Founded in 1999, Mindfire Solutions is an award-winning provider of software development and testing services to the global market with 650+ talented software engineers at 3 centers in India. For its people and its work, Mindfire has won coveted international awards such as Deloitte Technology Fast50 India Award 2013 and 2014, Dun & Bradstreet Fastest Growing SME 2013 Award, Red Herring Top 100 Asia Award and Zinnov GSPR 2014. Mindfire has been recognized with ISO 9001:2008 and ISO 27001:2005 certification, is a continuous member of NASSCOM, and has established a strong track record of 2000+ projects successfully delivered for 500+ technology clients.

© 2015 Mindfire Solutions | www.mindfiresolutions.com

**Need help to measure User
Engagement on Social Media?
Reach out to us here**

Phone: 1-248-686-1424

Web: www.mindfiresolutions.com

Email: sales@mindfiresolutions.com