RADAR

Real-Time Analytics
Dashboard Application for Retail

Overview:

RADAR is a software solution for B2C enterprises built using ITC Infotech's handy tools (NLP and Sentiment Analysis Engine), and by utilizing Hadoop's technologies including HDFS, Apache STORM, Apache SOLR, Oozie and Zookeeper to help enterprises maximize sales through data-based continuous re-pricing.

Using RADAR customized for their environment, B2C businesses such as brick and mortar retailers, online retailers and hospitality service providers can track the following for any number of products/services in their portfolio:

▪ Social Sentiment for each product or service they are offering
▪ Competitive Pricing/promotions being offered through social media and the web

With this solution, retailers can create continuous re-pricing campaigns and implement them real-time in their pricing systems.

RADAR can then further track the impact of re-pricing on sales and continuously compare it with social sentiment.

Retailers can also expose a part of RADAR their customers as a way to show end customers' social sentiment along with comparative reviews for products being sold, thereby helping to close sales faster by providing valuable information to the users.

RADAR uses Apache STORM for real-time data processing and Apache SOLR for indexing and data analysis. This demonstration is built on top of a proprietary text analysis engine developed by ITC Infotech.

In the example below, a dataset of about 1500 TV models was extracted and natural language text in the data associated with each model was analyzed using this engine. Data for each television model was gathered from a very large number of user reviews and web pages. Tweets on the other hand are processed real-time to extract relevant deals about televisions.

The solution architecture is described below. Do contact us to learn more and see how we can help make RADAR work for you.
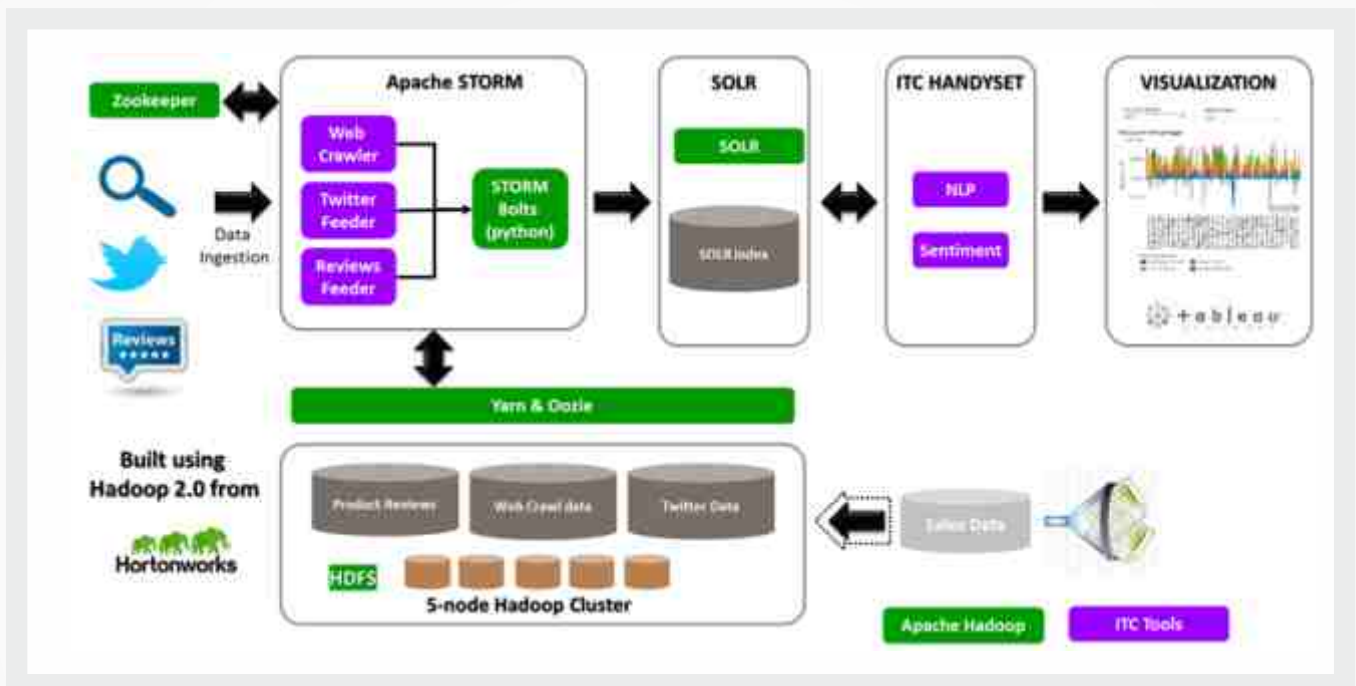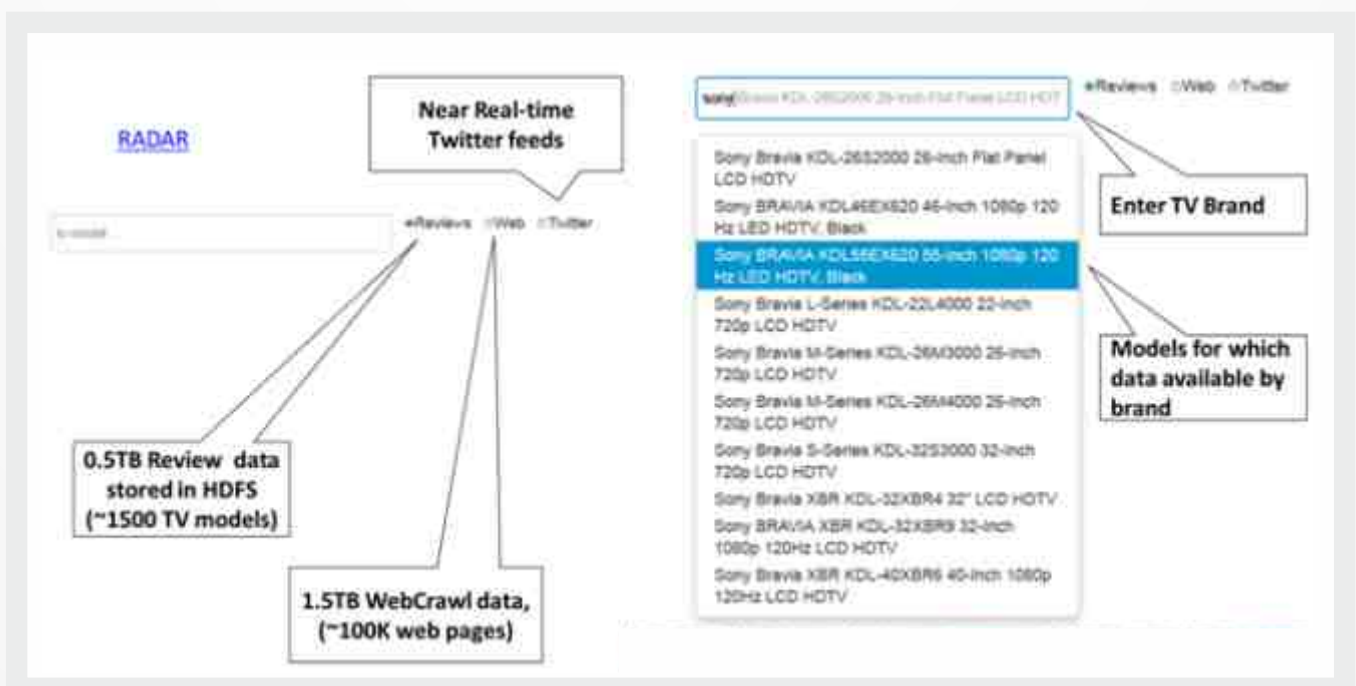

Figure 1. RADAR - Solution Architecture

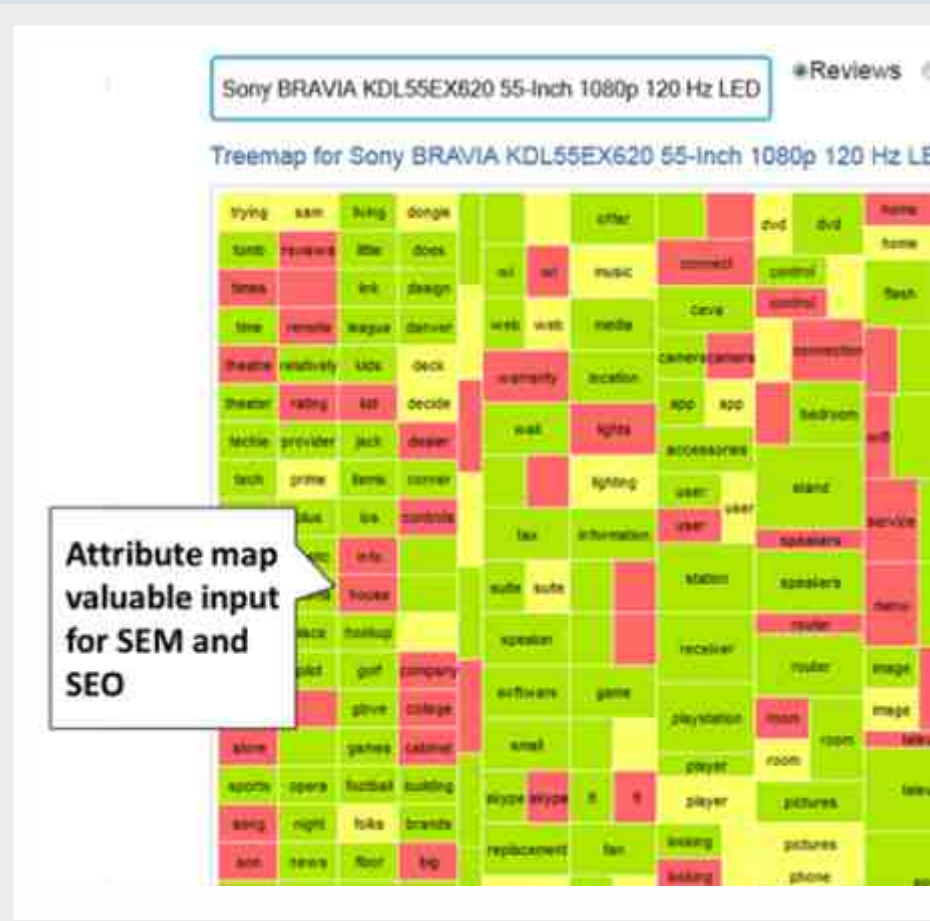Figure 2. RADAR - Input Screen
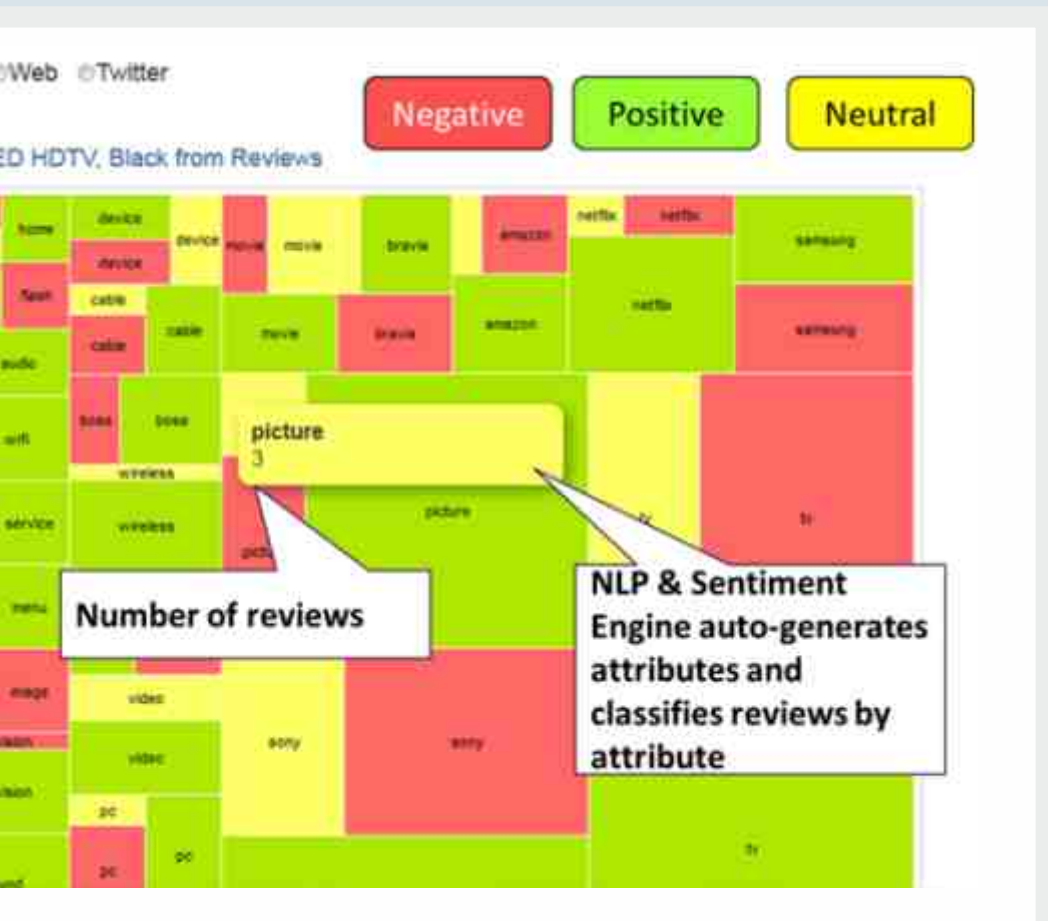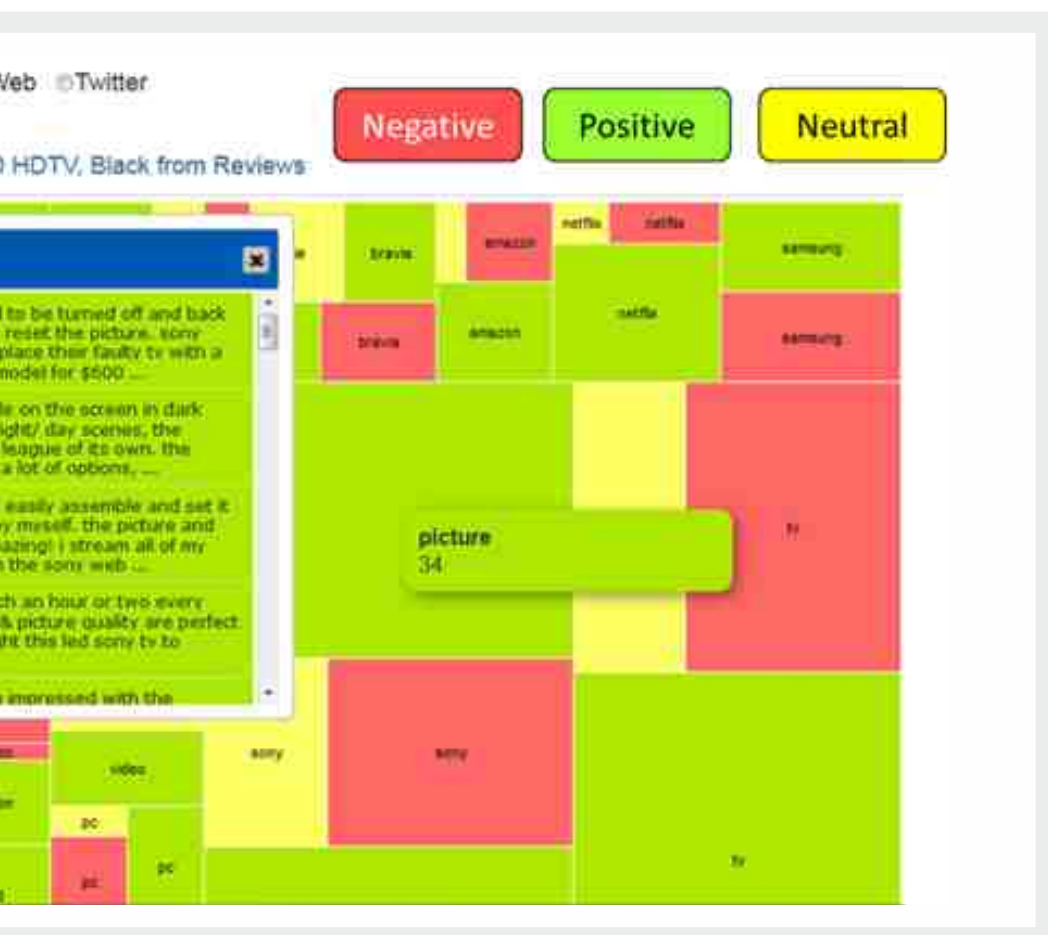
Figure 3. Sentiment analysis of reviews for the chosen product

Figure 4. Instantdrill-

ct – Reviewed attributes are auto-generated – Treemap shown using D3

down available for any attribute

Figure 5. Twitter deals analysed rea...

Figure 6. Competitor discounts offered (per product)

al-time and then associated with the product

– interactive analysis using STORM; visualization using Tableau

About ITC Infotech

ITC Infotech is a specialized global full service technology solutions provider, led by Business and Technology Consulting. ITC Infotech's Digitaligence@Work infuses technology with domain, data, design, and differentiated delivery to significantly enhance experience and efficiency, enabling our clients to differentiate and disrupt their business

The company is powered by a growing portfolio of specialized solutions addressing critical business challenges, including: Industry 4.0 solutions (PLM, IoT and Embedded), Customer Value Management, Loyalty, Trade Marketing & Distribution, Supply Chain Optimization, Data Engineering and Analytics, Digital Banking solutions and Digital Agriculture solutions. The company provides solutions to enterprises in Supply Chain based industries (CPG, Retail, Manufacturing, Hi-Tech) and Services (Banking, Financial Services and Insurance, Airline, Hospitality) through a combination of traditional and newer business models, as a long-term sustainable partner.

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www.itcinfotech.com | contact.us@itcinfotech.com