

# **Introduction**

## **Problem summary I**

How many page people will choose, it's tough to say? It will depend on the user, how satisfied with their News Feed, how many people and pages are connected to, patience with scrolling to choose pages to follow, and willingness to tinker after they've made an initial selection. All of which is to say that there will probably be a wide range.

And for which pages they will choose, well, people will pick pages they want to see posts from. Easy, no? Okay, to be a little less broad, it will be content that people find very entertaining, interesting, informative, content that reflects their personality, that they like to share, or that they think will make them a better person.

### **What is TIMESWEN?**

TIMESWEN is a web portal and related collection of Internet things & services. It is a completely rewritten and redesigned portal, making use of the modern design language. No employing editors to repurpose existing content from partners at popular organizations. Much of the existing content on TIMESWEN is eliminate as the website is simplifying into a new home page and categories, most of which have corresponding apps.

## **Scope II**

- Trend analysis but it's better find what's new around the world. So, it should be to Improve trending.
- Also, rich content after that from another resource & check purity of their contents.
- UX is improved it's seems so compatible to use. Better filtration according to interests. No people just autonomous system.
- Content searching of post there, also it shows 1 - 2 minutes ago post relevant and it's fast. Up to date within minutes of times.

## Aim and objectives III

- **News:** The latest news headlines and articles from a variety of hand-picked sources.
- **Weather:** Current weather conditions, forecasts, maps, news, and traffic.
- **Entertainment:** TV, movies, music, and celebrity news, as well as theatre show times, tickets, and TV listings. Based on the former Bing Entertainment service. Also includes the games website for online casual games.
- **Sports:** Up-to-the-minute scores, standings, and headlines from leagues worldwide.
- **Money:** Stock market tickers and watch lists, personal finance, real estate, investments, currency converter, and more.
- **Lifestyle:** Headlines, features, and other content related to style, home & garden, family, smart living, relationships, and horoscopes.
- **Health & Fitness:** Tools and information about weight loss, strength, exercise, nutrition, medicine, and more.
- **Food & Drink:** Recipes, cooking tips, news from chefs, cocktails, and shopping lists.
- **Travel:** Destinations, trip ideas, hotel search, flight search, flight status, and arrivals and departures.
- **Autos:** Research and buying advice, auto-related news, information for enthusiasts, and coverage of auto shows worldwide.
- **Video:** Trending and viral videos, comedy and pop culture, and videos.

## **Problem specifications IV**

*'The idea is to make the whole news portal system autonomous that fetches every relevant content and article on the Internet.'*

## **Brief literature review and prior art search (PAS) V**

The present invention further comprises a system for discovering story trends. The system comprises a plurality of client devices and a plurality of data sources coupled to a network. The system further comprises a web server operable to receive and transmit data to and from the client devices and data sources. In one embodiment, the web server may be further operable for receiving a request for stories from a user and provide a plurality of stories to the user.

### **Succession planning becomes a focus of their work**

A method for identifying story trends includes identifying a set of words in a fixed size data stream based on a sub word cache, and electronically determining at least one-story trend associated with the set of words and electronically generating a story hash associated with the set of words. The method also includes storing the story hash in a story trend cache and updating the story trend cache according to the story hash, and retrieving one or more popular story topics according to the story trend cache. Machine readable media, including program code that causes execution of a method for generating search results also are described.

## **Technology and tools required VI**

### **Cloud servers**

A cloud server is a logical server that is built, hosted and delivered through a cloud computing platform over the Internet. Cloud servers possess and exhibit similar capabilities and functionality to a typical server but are accessed remotely from a cloud service provider.

### **NGINX**

NGINX is a free, open-source, high-performance HTTP server and reverse proxy, as well as an IMAP/POP3 proxy server. NGINX is known for its high performance, stability, rich feature set, simple configuration, and low resource consumption.

NGINX is one of a handful of servers written to address the C10K problem. Unlike traditional servers, NGINX doesn't rely on threads to handle requests. Instead it uses a much more scalable event-driven (asynchronous) architecture. This architecture uses small, but more importantly, predictable amounts of memory under load. Even if you don't expect to handle thousands of simultaneous requests, you can still benefit from NGINX's high-performance and small memory footprint. NGINX scales in all directions: from the smallest VPS all the way up to large clusters of servers.

### **Bots**

Web Bot is an internet bot computer program whose developers claim is able to predict future events by tracking keywords entered on the internet. It was developed in 1997, originally to predict stock market trends. The creator of the Web Bot Project, Clif High, along with his associate George Ure, keep the technology and algorithms largely secret and sell the predictions via the website.

An Internet bot, also known as web robot, WWW robot or simply bot, is a software application that runs automated tasks (scripts) over the Internet. Typically, bots perform tasks that are both simple and structurally repetitive, at a much higher rate than would be possible for a human alone.

## **Human based pattern detection**

Not only are machines rapidly catching up to - and exceeding - humans in terms of raw computing power, they are also starting to do things that we used to consider inherently human. They can feel emotions like regret. They can daydream. So what is - exactly - that humans still do better than machines?

One thing is clear – being able to recognize patterns is what gave humans their evolutionary edge over animals. How we refine, shape and improve our pattern recognition is the key to how much longer we'll have the evolutionary edge over machines.

## **Apache Lucene Core**

Apache Lucene™ is a high-performance, full-featured text search engine library written entirely in Java. It is a technology suitable for nearly any application that requires full-text search, especially cross-platform.

## **EdgeRank**

EdgeRank is the Facebook algorithm that decides which stories appear in each user's newsfeed. The algorithm hides boring stories, so if your story doesn't score well, no one will see it.

## **TensorFlow**

TensorFlow™ is an open source software library for numerical computation using data flow graphs. Nodes in the graph represent mathematical operations, while the graph edges represent the multidimensional data arrays (tensors) communicated between them. The flexible architecture allows you to deploy computation to one or more CPUs or GPUs in a desktop, server, or mobile device with a single API. TensorFlow was originally developed by researchers and engineers working on the Google Brain Team within Google's Machine Intelligence research organization for the purposes of conducting machine learning and deep neural networks research, but the system is general enough to be applicable in a wide variety of other domains as well.

## **Neo4j**

Neo4j equally exploits both data relationships and data elements, empowering the next generation of breakthrough applications.

## **Natural language processing**

Natural language processing (NLP) is a field of computer science, artificial intelligence and computational linguistics concerned with the interactions between computers and human (natural) languages, and, in particular, concerned with programming computers to fruitfully process large natural language corpora.

## **Cytoscape**

Cytoscape is an open source software platform for visualizing molecular interaction networks and biological pathways and integrating these networks with annotations, gene expression profiles and other state data. Although Cytoscape was originally designed for biological research, now it is a general platform for complex network analysis and visualization. Cytoscape core distribution provides a basic set of features for data integration, analysis, and visualization.

# **Design**

Analysis, Design Methodology and Implementation Strategy

## **Functional requirements I**

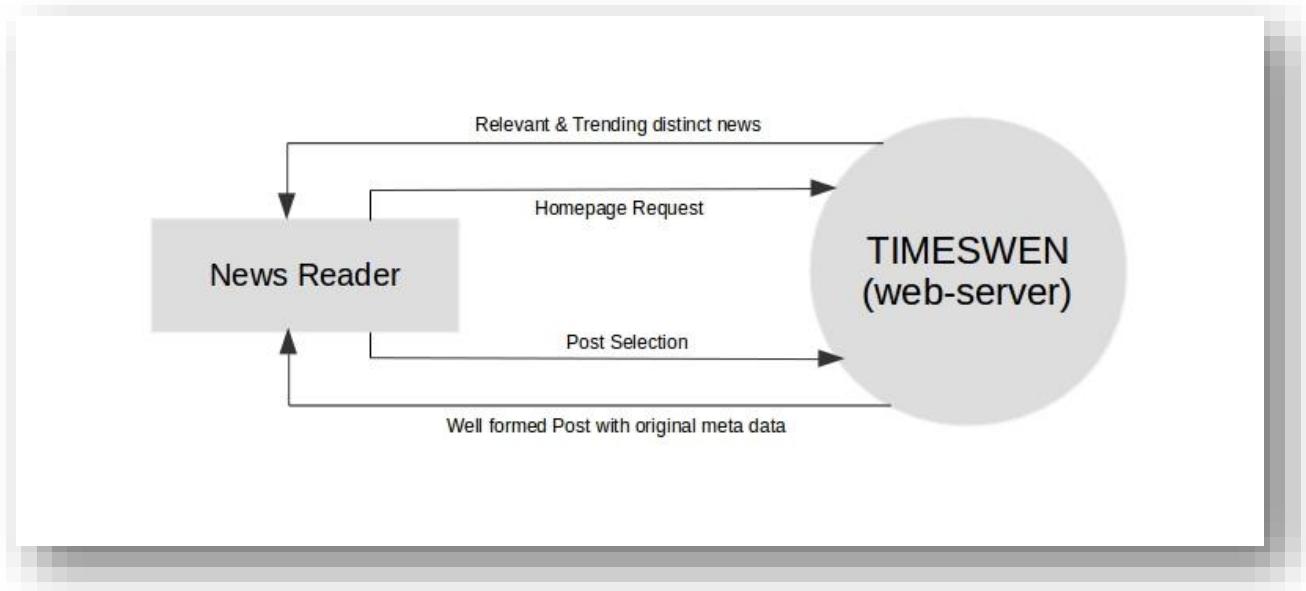
- Web crawling.
- Content parsing.
- Relation mapping.
- Rank and indexing.
- Social media authentication.

## **Non-functional requirements II**

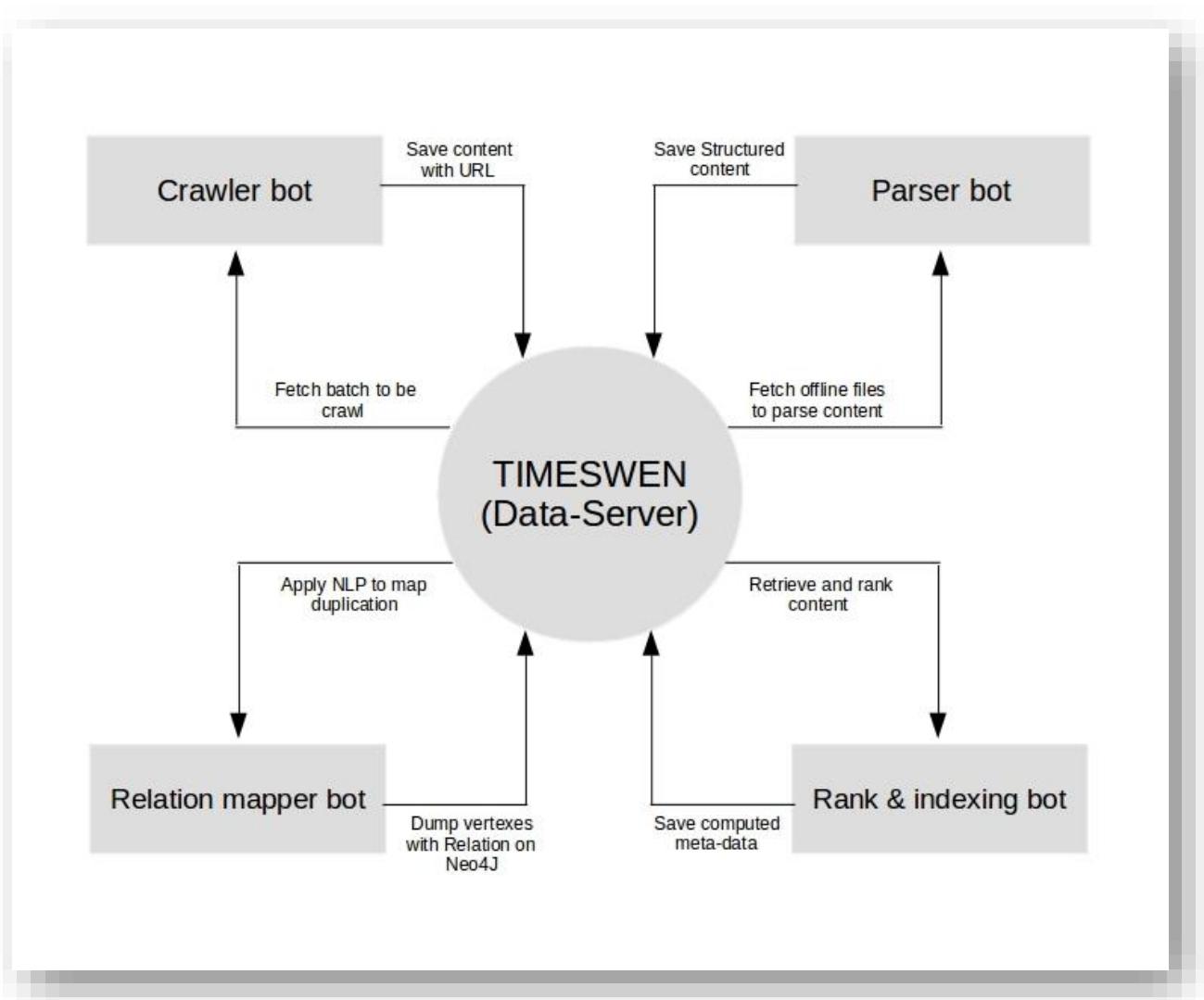
- Load balancer for grand sequence.
- Data integrity.
- Fault toleration.
- Evolution of Eye-Rank.
- High quality content.

## Data flow diagram III

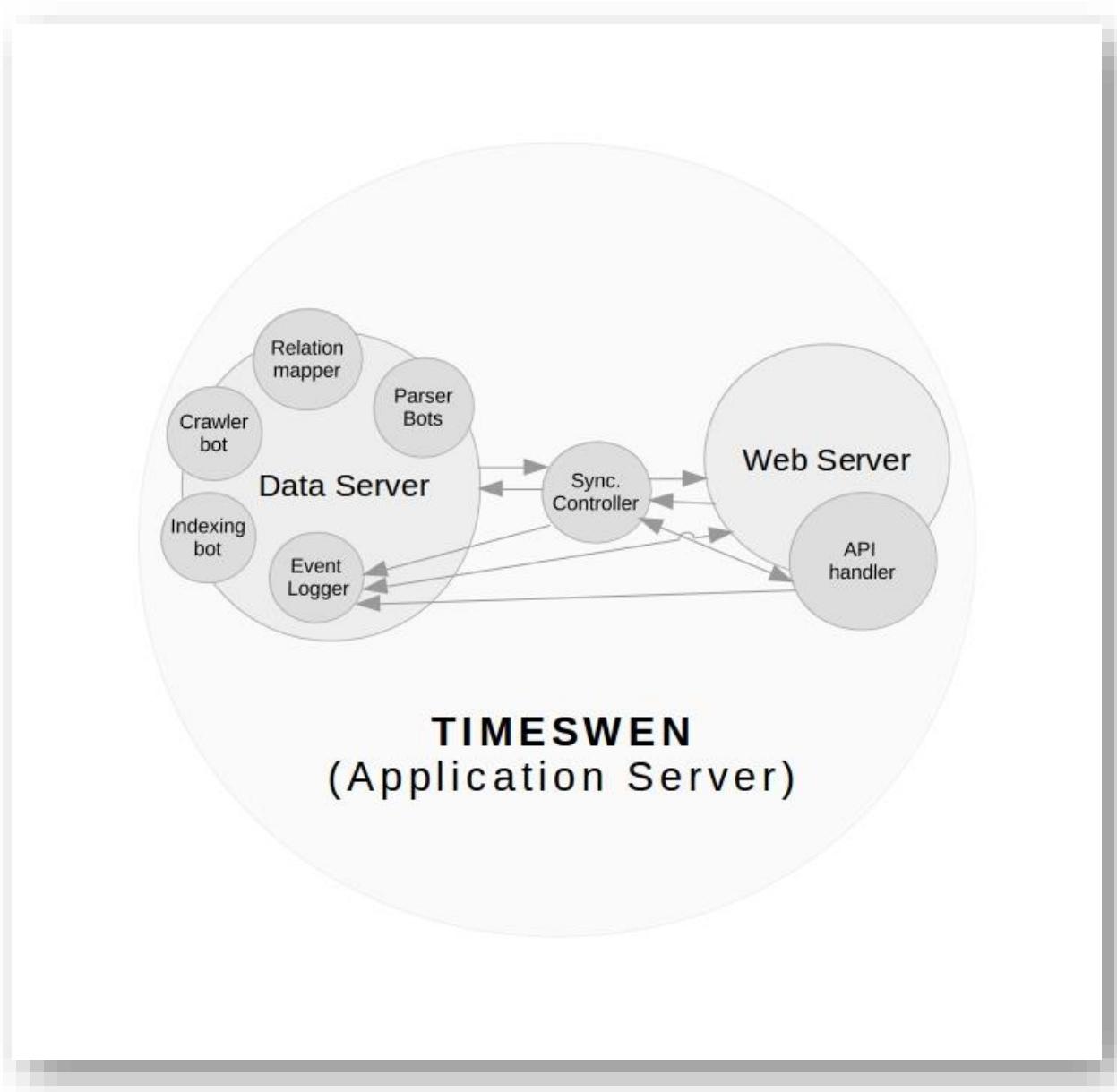
### Data flow diagram level 0 – Reader



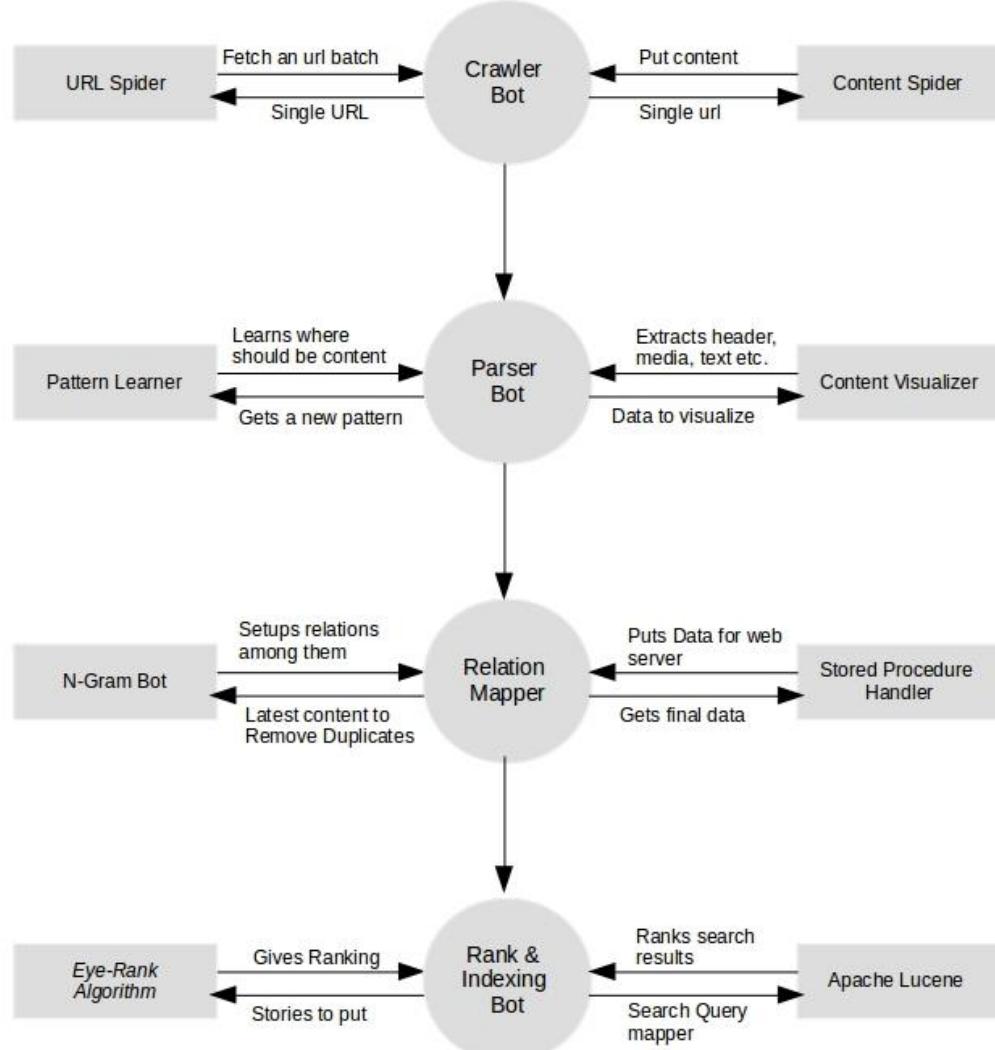
## Data flow diagram level 0 - Bots



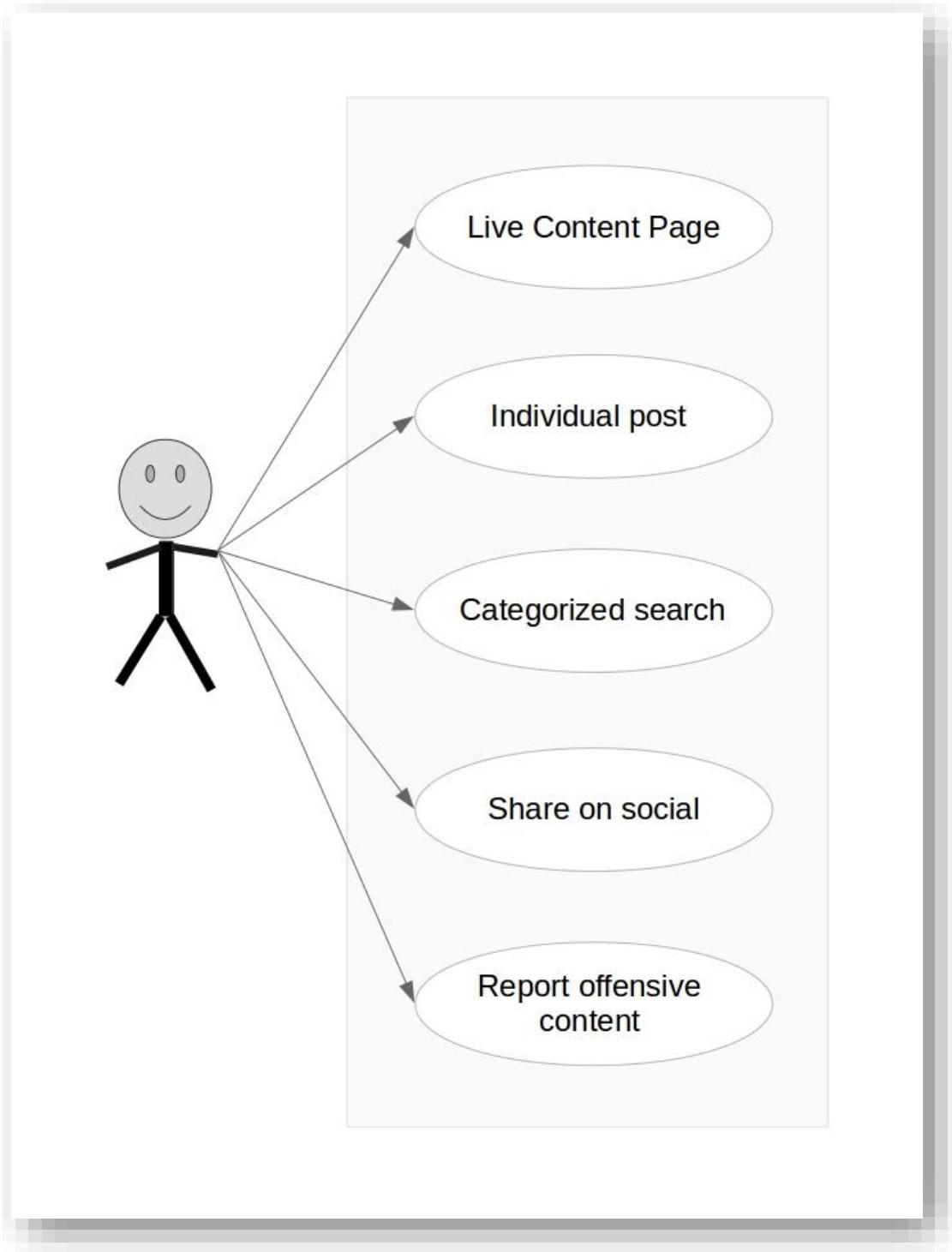
## Data flow diagram level 0 - Final overview



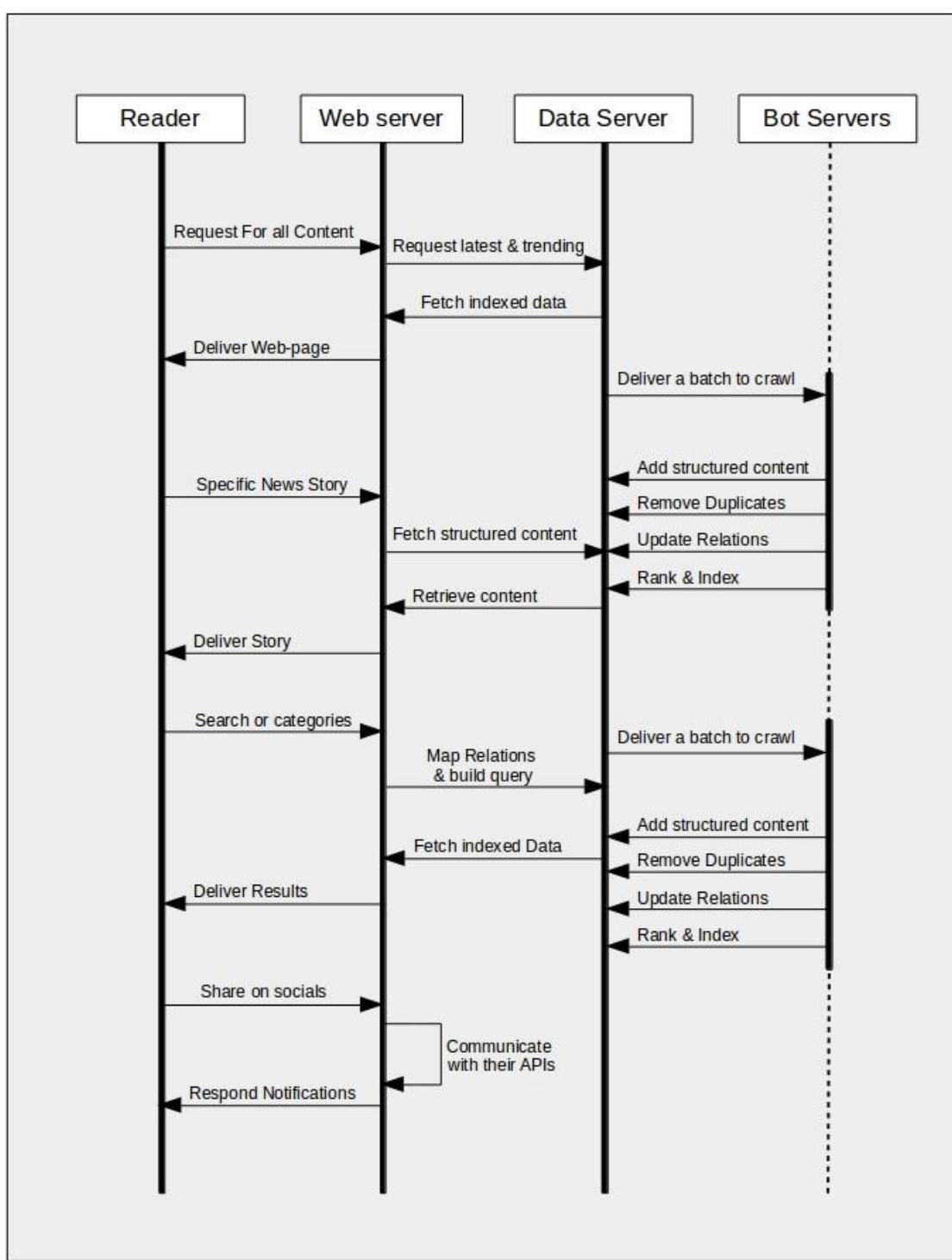
## Data flow diagram level 1 - Bots



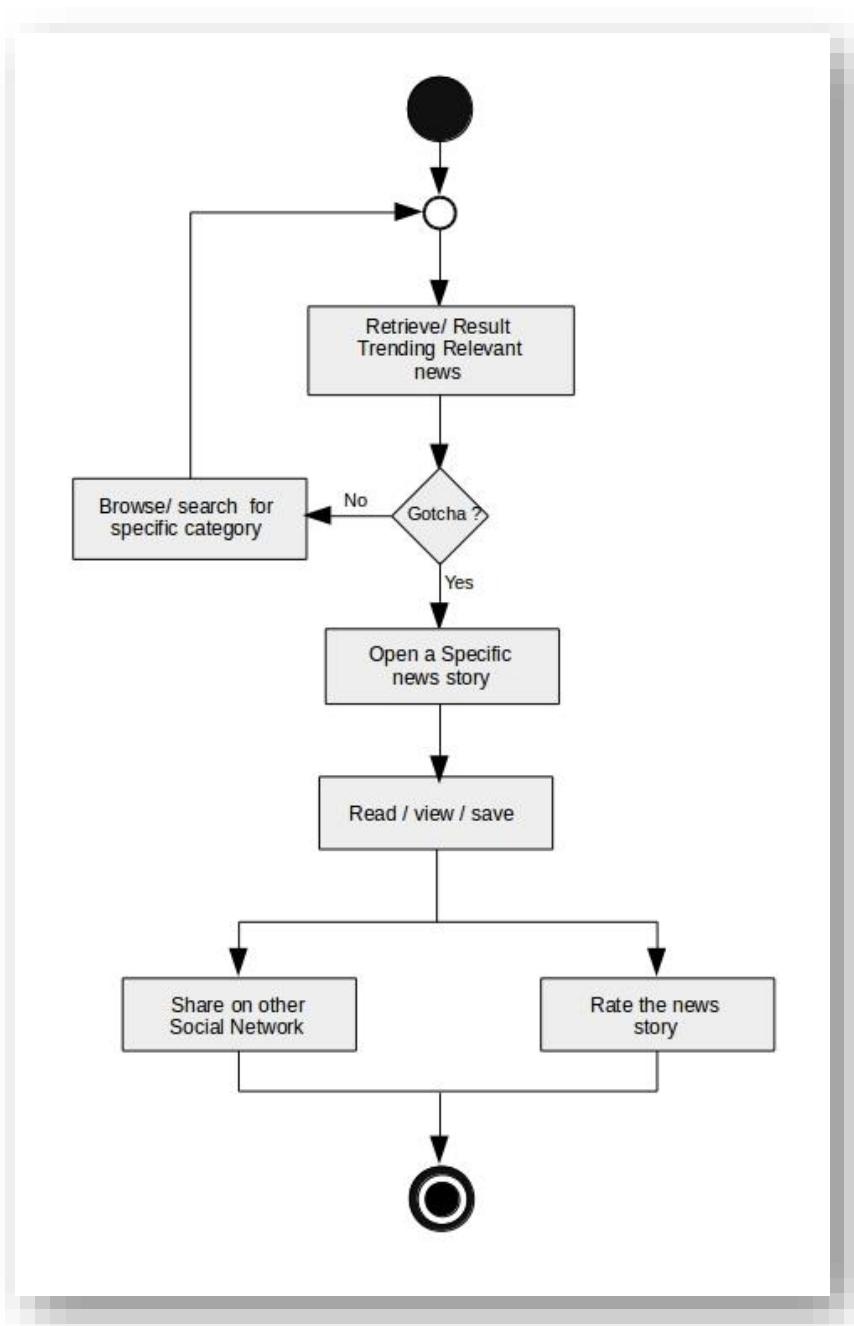
### Use case diagram



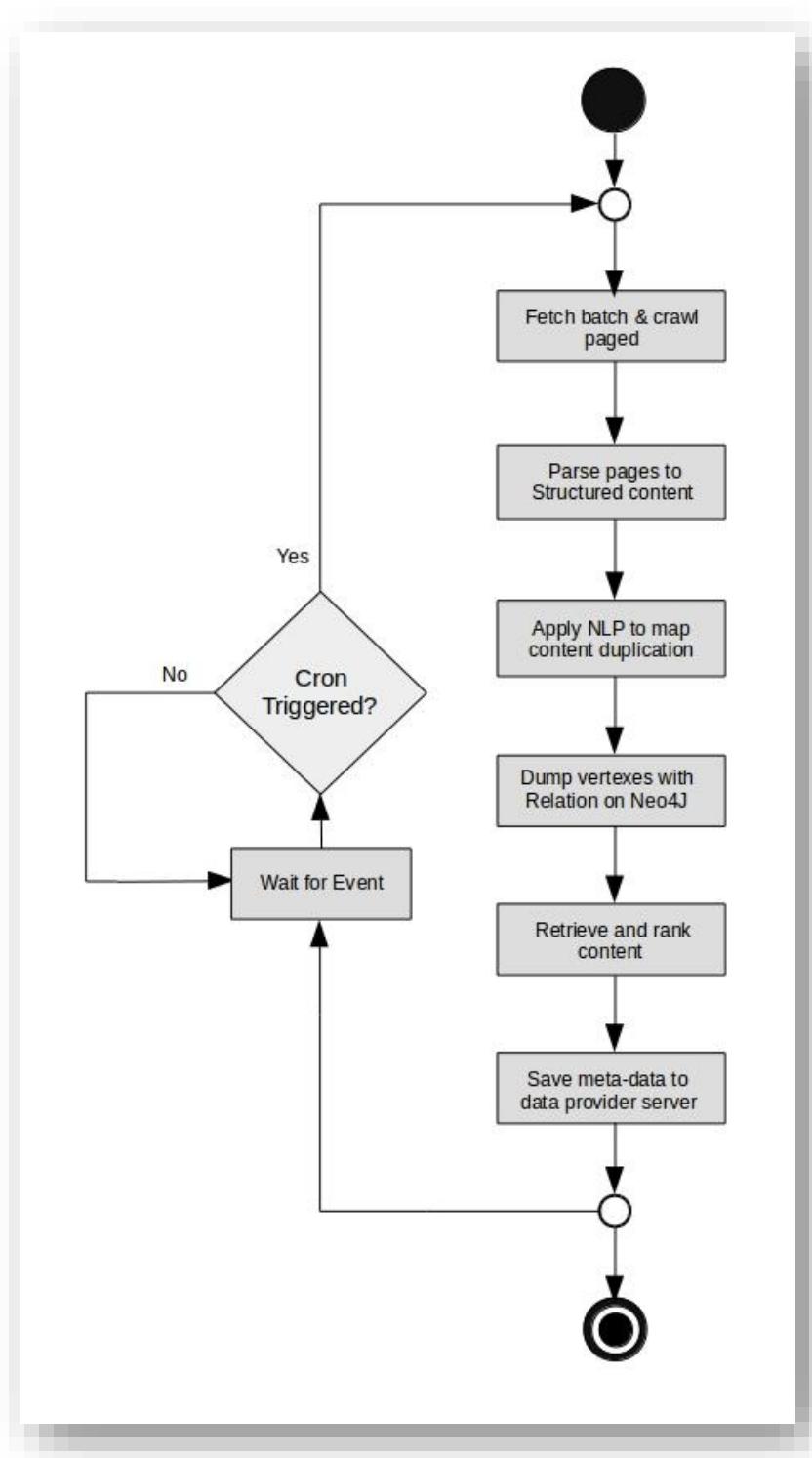
## Sequence diagram



### Reader's activity diagram



## System's activity diagram



## **Explanation of work V**

### **Observation matrix – AEIOU**

AEIOU Framework is a heuristic to help interpret observations gathered by ethnographic practice in industry. Its two primary functions are to code data, and to develop building blocks of models that will ultimately address the objectives and issues of a client. AEIOU stands for 5 elements to be coded: Activity, Environment, Interaction, Object, and User.

- Activities are goal-directed sets of actions – paths towards things people want to accomplish. What are the modes people working in, and the specific activities and processes they go through?
- Environments include the entire arena where activities take place. What is the character and function of the space overall, of each individual's spaces, and of shared spaces?
- Interactions are between a person and someone or something else; they are the building blocks of activities. What is the nature of routine and special interactions between people, between people and objects in their environment, and across distances?
- Objects are building blocks of the environment, key elements sometimes put to complex or unintended uses (thus changing their function, meaning and context). What are the objects, devices people have in their environments, and how do they relate to their activities?
- Users are the people whose behaviors, preferences, and needs are being observed. Who is there? What are their roles and relationships? What are their values and prejudice?

AEIOU Summary:		Group ID: Domain Name:	Date:	Version:
<b>Environment:</b> <ul style="list-style-type: none"> <li>- Festival expressions/ observations</li> <li>- Disaster</li> <li>- Floor plan</li> <li>- Interview features special notes</li> <li>- Scenes</li> </ul>		<b>Interactions:</b> <ul style="list-style-type: none"> <li>- Farmers are writing articles about their interactions with the environment.</li> <li>- Reviewer is interacting with news by typing notes.</li> <li>- User is using sharing features and special notes.</li> </ul>		<b>Objects:</b> <ul style="list-style-type: none"> <li>- Smartphones</li> <li>- Wearables</li> <li>- Tablets/ notebooks</li> <li>- Personal computers</li> </ul>
<b>Activities:</b> <ul style="list-style-type: none"> <li>- Reading news stories</li> <li>- Looking for trending topics</li> <li>- Creating photo Summary of news changes languages</li> <li>- Elements, features and special notes</li> <li>- Filtering news by choice or according to categories</li> <li>- Sharing articles and news content on another social media group.</li> <li>- Enabling digital subscriptions</li> <li>- Monitoring stock exchange.</li> </ul>		<b>Users:</b> <ul style="list-style-type: none"> <li>- Researchers</li> <li>- Reporters</li> <li>- Photographers</li> <li>- Businessmen</li> <li>- Journalists</li> <li>- Stock Holders</li> <li>- Celebrities</li> <li>- Storytellers</li> <li>- Sports fans</li> <li>- Politicians</li> <li>- Teenagers</li> <li>- Professors</li> </ul>		

## Activities

- Reading news stories.
- Looking for trending topics.
- Different region's users change languages.
- Writing articles on their field of knowledge and researches.
- Enabling digital subscriptions.
- Filtering news by choice or according to categories.
- Sharing articles and news content on another social media group.
- Monitoring stock exchange.

## **Environment**

- Festival.
- Disaster.
- Terrorist activity.
- Election time.
- New movie or album releases.
- Weather forecasts.

## **Interaction**

- Reporter is typing a news.
- Experts are writing articles.
- User is using filtering feature.
- User interacts with helpdesk of the portal.
- Business persons interacts with finance section for relevant news.
- Stock holders interacts with real-time data graphs.
- Stock holders interacts with prediction graphs of stock market.

## **Objects**

- Smartphones.
- Smart watches.
- Personal computers.
- Oculus rift (A VR device).
- Tablets/Notebooks.
- Wearables internet things.

## **Users**

- Reporters.
- Photographers.
- Businessmen.
- Teenagers.
- Stock holders.
- Celebrities.
- Politicians.
- Professors.
- Sportsmen.
- Story readers.
- Researchers.
- Journalist.

## **Empathy Summary**

In this, you have to find out what is user to your problems? What is a stakeholder? What are activities? And what are broad stories of their activities?

### **User**

- Reporters.
- Photographers.
- Businessmen.
- Teenagers.
- Stock holders.
- Celebrities.
- Politicians.
- Professors.
- Sportsmen.
- Story readers.
- Researchers.
- Journalist.

### **Stakeholders**

- Brandings.
- IQ examiners.
- Ad companies.
- Celebrities.
- Publisher.
- Geek persons.
- Organizations.

## **Activities**

- Reading news stories.
- Looking for trending topics.
- Different region's users change languages.
- Writing articles on their field of knowledge and researches.
- Enabling digital subscription.
- Filtering news by choice or according to categories.
- Sharing articles and news content on another social media group.
- Monitoring stock exchange.

## **Story boarding**

### **Happy**

*'Since when I started using the service portal, I gain extreme level of general knowledge and became a smart and updated about the happenings around the world.'*

*'I was new to business world. I used the portal for reading articles about the suggestions and guidelines for new business, as well as the stock market news helped me to purchase new stocks of companies.'*

### **Sad**

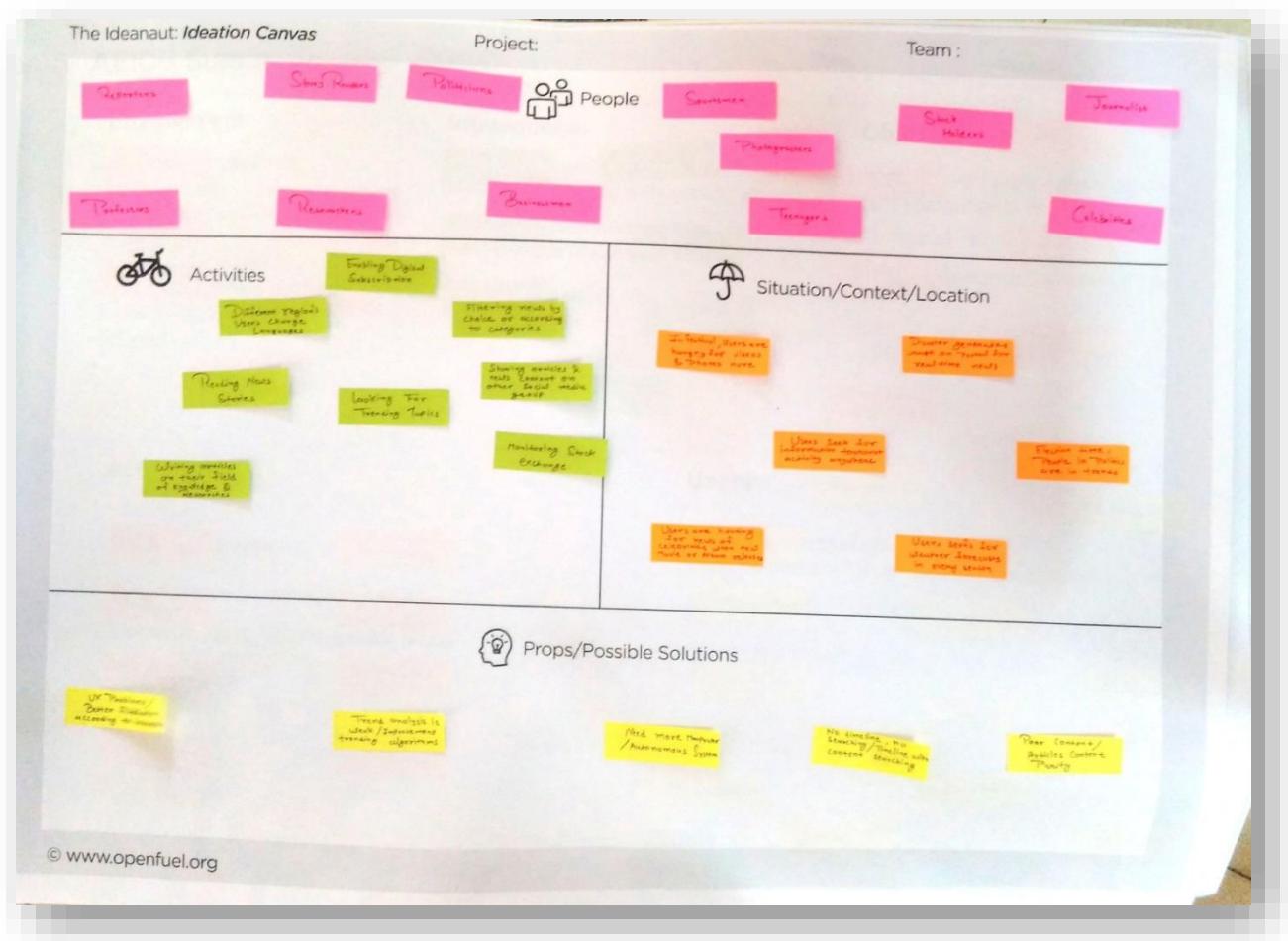
*'I read a news article and in excitement I shared in my friend circle. After two days, it was reviled that the news was totally fake. So, I became fool in my friend circle.'*

*'Rapidly growing internet and digital media became a big threat for the print media as some of newspapers companies have to shut down discard their printing press.'*

## Ideation canvas

In ideation canvas, you have to carry out which type of activities is related to your project and people? What is situation and location regarding to activities? Then after you find the possible solutions. It is depending or not depend to your activities.

- Who may be the various set of people benefited by your idea?
- Who may be the various stakeholders to your concept?
- Who might use your product?
- Who might invest in your product?



## **People**

- Reporters.
- Photographers.
- Businessmen.
- Teenagers
- Stock holders
- Celebrities
- Politicians
- Professors
- Sportsmen
- Story readers
- Researchers
- Journalist

## **Activities**

- Reading news stories.
- Looking for trending topics.
- Different region's users change languages.
- Writing articles on their field of knowledge and researches.
- Enabling digital subscription.
- Filtering news by choice or according to categories.
- Sharing articles and news content on another social media group.
- Monitoring stock exchange.

## **Situation/Context/Location**

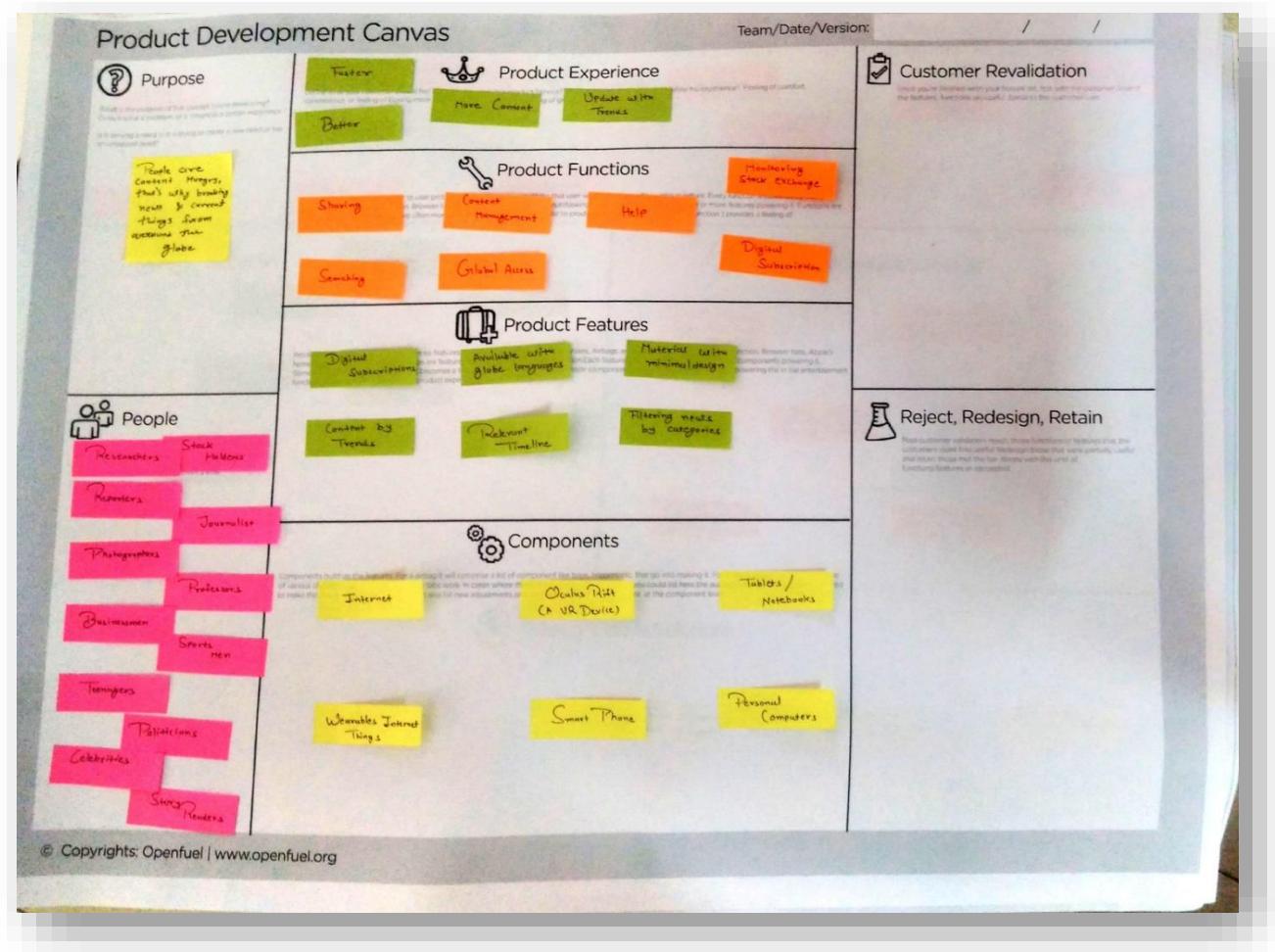
- In festival, users are hungry for videos and photos more.
- Disaster generates rush on portal for real time news.
- Users seek for information terrorist activity anywhere.
- Election time, people in politics are in trends.
- Users are hunting for news of celebrities when new movie or album releases.
- Users serfs for weather forecasts in every season.

## **Props/Possible Solutions**

- Trend analysis is weak/Improvement trending algorithms.
- Poor content/Articles content purity.
- UX problems/Better filtration according to interests.
- Need more manpower/Autonomous system.
- No timeline, no searching/Timeline with content searching.

## Product development canvas

The development of the product. From possible solutions, you have idea about what is product? In this canvas, following things is to do.



### Purpose

- People are content hungry, that's why breaking news and current things from around the globe.

### People

- Reporters.
- Photographers.
- Businessmen.
- Teenagers.

- Stock holders.
- Celebrities.
- Politicians.
- Professors.
- Sportsmen.
- Story readers.
- Researchers.
- Journalist.

### **Product experience**

- Better.
- Faster.
- More content.
- Update with trends.

### **Product functions**

- Sharing.
- Content management.
- Searching.
- Global access.
- Help.
- Digital subscriptions.
- Monitoring stock exchange.

### **Product features**

- Digital subscriptions.
- Available with globe languages.
- Content by trends.
- Relevant timeline.
- Material with minimal design.
- Filtering news by categories.

## **Components**

- Internet.
- Oculus Rift (A VR device).
- Tablets/Notebooks.
- Personal computers.
- Smart phone.
- Wearables Internet things.

# Implementation

## Performance I

### Response time

# Mysql vs Neo4j

- 1M users
- Friends of friends for 1K users

Depth	Execution Time – MySQL	Execution Time – Neo4j
2	0. 016	0. 010
3	30. 267	168
4	1, 543. 505	1. 359
5	Not Finished in 1 Hour	2. 132

<http://www.neotechnology.com/how-much-faster-is-a-graph-database-really/>  
<http://www.manning.com/partner/>

alberto@graphenedb.com | @albertoperdomo

Data Model	Performance	Scalability	Flexibility	Complexity	Functionality
Key–Value Store	high	high	high	none	variable (none)
Column-Oriented Store	high	high	moderate	low	minimal
Document-Oriented Store	high	variable (high)	high	low	variable (low)
Graph Database	variable	variable	high	high	graph theory
Relational Database	variable	variable	low	moderate	relational algebra

Depth	RDBMS execution time(s)	Neo4j execution time(s)	Records returned
2	0.016	0.01	~2500
3	30.267	0.168	~110,000
4	1543.505	1.359	~600,000
5	Unfinished	2.132	~800,000

TREC Filtering OHSUMED Data Set

63 Topics = Queries ("37 yr old man with sickle cell disease"); Avg. Len: 6.7; OR'ed

**196,403** Medical Results (**300MB** Indexable Text)

Judgement Data: (Topic, Result, 2 or 1 or 0 Rating)

Relevancy: **DCG 10**

Platform	Index Peak Memory	Index Time	Index Size	Search Peak Memory	Search Time	Relevancy
Lucene 2.4.1	37 MB	2m15s	<b>91 MB</b>	18 MB	0.02168s (1.366s)	<b>1.0449</b>
zettair 0.9.3	22 MB	<b>0m29.34s</b>	122 MB	9 MB	0.02609s (1.644s)	0.8299
sphinx 0.9.8.1	19 MB	0m42.35s	201 MB	16 MB	<b>0.00803s</b> (0.506s)	0.7690
sqlite 3.6.11	<b>8 MB</b>	1m54.91s	474 MB	7 MB	0.91451s (54.614s)	0.0166
Xapian 1.0.13	48 MB	6m38.17s	339 MB	<b>1 MB</b>	0.02286s (1.440s)	1.0162

## **Reliability and resource utilization**

Since our system will be hosted on a cloud, it will derive the benefits like elastic growth and other new capabilities offered by cloud computing. The following usage scenarios, organized from the simplest to the most complex, illustrate a variety of advantages of virtualization.

- **Hardware independence** – Virtualization minimizes the dependence of an application on its underlying hardware. That means the application may still require the same machine instructions, such as Intel. But its software is decoupled from hardware-based details, such as physical memory and storage, so the application can be easily moved onto new hardware.
- **Server consolidation** – In this case, virtualization increases resource utilization because multiple applications can share hardware resources, including previously underutilized hardware.
- **Multi-tenant** – With this usage scenario, multiple independent instances of an application, such as e-mail or web service, can be consolidated on a single virtualized platform. The instances are then available simultaneously to diverse user communities.
- **Virtual appliance** – In this vision of virtualization, defined by the Distributed Management Task Force (DSP2017), applications are delivered as turnkey software, pre-packaged with operating systems, protocol stacks and supporting software. This approach allows suppliers to thoroughly test the production configuration of all system software, while customers enjoy simpler installation and maintenance.
- **Cloud deployment** – This usage scenario includes rapid elasticity and is the typical endpoint of the evolution of an application to the cloud. It offers the most flexible configuration, which can expand or contract automatically in response to changing workloads.

## **Design for ergonomics II**

For making the Web system more interactive and user friendly, we're focusing on GUI guidelines provided by Google itself called material design which is more about a visual language for our users that synthesizes the classic principles of good design with the innovation and possibility of technology and science. A single underlying system that allows for a unified experience across platforms and device sizes.

- A material metaphor is the unifying theory of a rationalized space and a system of motion. The material is grounded in tactile reality, inspired by the study of paper and ink, yet technologically advanced and open to imagination and magic.
- The foundational elements of print-based design – typography, grids, space, scale, color, and use of imagery – guide visual treatments. These elements do far more than please the eye.
- Each Motion is meaningful and appropriate, serving to focus attention and maintain continuity. Feedback is subtle yet clear. Transitions are efficient yet coherent.

## Pattern pages

The screenshot shows the 'Ti Pattern' application interface. At the top, there's a URL bar with 'timeswen.com/home/homepage.php'. Below it, the title 'Ti Pattern' is displayed. A sub-header 'https://www.movzio.com/' is shown above a form. The form has a dropdown menu set to '2' and a text input field labeled 'Type'. Below the input field is a placeholder 'Enter Pattern url example: http://www.indiatimes.com/'. A section titled 'Ways to crawl { 2 }' lists two items:

- \* h3[class=entry-title td-module-title] ~> a=>link[href]
- \* h3[class=entry-title td-module-title] ~> a=>plaintext==>header/title

At the bottom right of this section is a blue download button with a downward arrow icon.

This screenshot shows a detailed crawling log from the 'Ti Pattern' application. The log is a list of URLs and their corresponding crawled content. The content includes various articles and sections from the 'movzio' website, such as 'eChaiFest Day 1: Significant Beginning-Sustaining-Ecosystem', 'How to Make PC Talk Like Jarvis System', and 'How to Root Your Android Device'. The log is presented in a table-like structure with columns for URLs and content snippets.

## Home pages

**TIMESWEN**



**21 MAY**

**SCOOPWHOOP**

**This Tribute To Dead Police  
Mare Shaktiman Is The Most  
Ridiculous Thing You Will...**

Just Now 2048 reads



**28 APR**

**SPOTBOYE**

**Bipasha kickstarts her  
wedding celebrations with a  
pooja**

The actress, who will tie the knot with Karan Singh Grover on April 30, had her first prenuptial ceremony

Just Now 524 reads



**28 APR**

**THE VERGE**

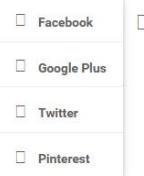
**NASA now uses giant  
touchscreens to teach  
astronauts how to fly to...**

Just Now 118 reads

## Content page

You are done.

**Fired. Do not show your face at the laundry again.** Stay away from Pinkman. Do not  
Are you listening to me?



What do you say?

For now, but he'll come around. In the meantime there's the matter of your brother-in-law. He is a problem you promised to resolve. You have failed. Now is left to me.



To deal with him. If you try to interfere, this becomes a much simpler matter. I will kill your wife, I will kill your son, I will kill your infant daughter.

You are a wealthy man now. One must learn to be rich. To be poor, anyone can manage.  
- Gus Fring

photo

fruit

# **Summary of the results**

## **Problem summary I**

- There are lots of those articles are not trustworthy, but still remains in trending, so system finds similarity between articles with advantage of the library collection.
- Creating news graph for identifying relations for existing news articles.

## **Usefulness**

- System train itself so better accuracy in prediction of category and also in trending news articles.
- Evolution of graph of data to knowledge graph.
- Improving content extractor (parser bot) capabilities for any random news.

## **Benchmarking**

- The system is totally dependent on the news sources. If news source is authorized than it has high quality.

## **Benefits of clustering system**

- Reduced single points of failure through Exchange Virtual Server (EVS) failover functionality.
- Ability to perform maintenance and upgrades with limited downtime.
- Ability to easily scale up your cluster to a maximum of seven active EVSs.

# **References**

## **Microsoft TechNet**

[https://technet.microsoft.com/en-us/library/aa996423\(v=exchg.65\).aspx](https://technet.microsoft.com/en-us/library/aa996423(v=exchg.65).aspx)

## **NGINX**

<https://www.nginx.com>

## **Neo4j**

<https://neo4j.com>

## **Apache Lucene Core**

<https://lucene.apache.org/core/>

## **TensorFlow**

<https://www.tensorflow.org>

## **Cytoscape**

<http://www.cytoscape.org/>

## EdgeRank

<http://edgerank.net/>

PRESENTING

# EdgeRank

A GUIDE TO FACEBOOK'S NEWSFEED ALGORITHM

fig 2.1  
Source: EdgeRank.net

$$\sum_{edges\ e} u_e w_e d_e$$

$U_e$  ~ affinity score between viewing user and edge creator  
 $W_e$  ~ weight for this edge type (create, connect, like, tag, ect.)  
 $d_e$  ~ time decay factor based on how long ago the edge was created

## What is EdgeRank?

*EdgeRank is the Facebook algorithm that decides which stories appear in each user's newsfeed. The algorithm hides boring stories, so if your story doesn't score well, no one will see it.*

The first thing someone sees when they log into Facebook is the newsfeed. This is a summary of what's been happening recently among their friends on Facebook.

Every action their friends take is a potential newsfeed story. Facebook calls these actions "Edges." That means whenever a friend posts a status update, comments on another status update, tags a photo, joins a fan page, or RSVP's to an event it generates an "Edge," and a story about that Edge might show up in the user's personal newsfeed.

It'd be completely overwhelming if the newsfeed showed all of the possible stories from your friends. So Facebook created an algorithm to predict how interesting each story will be to each user. Facebook calls this algorithm "EdgeRank" because it ranks the edges. Then they filter each user's newsfeed to only show the top-ranked stories for that particular user.

## Why should I care?

*Because most of your Facebook fans never see your status updates.*

Facebook looks at all possible stories and says "Which story has the highest EdgeRank score? Let's show it at the top of the user's newsfeed. Which one has the next highest score? Let's show it next." If EdgeRank predicts a particular user will find your status update boring, then your status update will never even be shown to that particular user.

Caveat: There actually appears to be two algorithms, although this has not been conclusively proven. The EdgeRank algorithm ranks stories, and a second algorithm sorts the newsfeed. This newsfeed algorithm includes a randomization element and a [keyword aggregator](#). Zuckerberg mentioned in an interview with TechCrunch that Facebook users found it every how well Facebook knew what they were interested in, so they started randomizing the newsfeed slightly.

The numbers on this are frightening. In 2007, a Facebook engineer said in an interview that only about [0.2% of eligible stories make it into a user's newsfeed](#). That means that your status update is competing with 499 other stories for a single slot in a user's newsfeed.

## How does EdgeRank work?

*EdgeRank is like a credit rating: it's invisible, it's important, it's unique to each user, and no one other than Facebook knows exactly how it works.*

At Facebook's [2010 F8 conference](#), they revealed the three ingredients of the algorithm:

## **News feed FYI: More articles you want to spend time viewing**

As we work to improve News Feed, we make updates to help make sure you see the most relevant stories at the top. As part of this work, we ask thousands of people to rate their experience every day and tell us how we can improve what they see when they check Facebook — we call this our Feed Quality Program. From these conversations, we have learned that the actions people take on Facebook—liking, clicking, commenting or sharing a post—don't always tell us the whole story of what is most meaningful to them.

For example, we've found that there are stories people don't like or comment on that they still want to see, such as articles about a serious current event, or sad news from a friend. Based on this finding, we previously updated News Feed's ranking to factor in how much time you spend reading a post within News Feed, regardless of whether you opened the article. We also previously updated News Feed's ranking to take into account times when someone clicked on an article and came straight back to News Feed as we learned that this often happened when the article someone clicked on wasn't what they had expected from the post or the headline.

### **Time spent viewing**

Building on this work, we're learning that the time people choose to spend reading or watching content they clicked on from News Feed is an important signal that the story was interesting to them. We are adding another factor to News Feed ranking so that we will now predict how long you spend looking at an article in the Facebook mobile browser or an Instant Article after you have clicked through from News Feed. This update to ranking will take into account how likely you are to click on an article and then spend time reading it. We will not be counting loading time towards this — we will be taking into account time spent reading and watching once the content has fully loaded. We will also be looking at the time spent within a threshold so as not to accidentally treat longer articles preferentially.

With this change, we can better understand which articles might be interesting to you based on how long you and others read them, so you'll be more likely to see stories you're interested in reading. This change only factors in the time people spend reading an article regardless of whether that time is spent reading an Instant Article or an article in the mobile web browser.

### **Diversity of page posts**

We've also heard from people that they enjoy reading articles from a wide range of publishers, and it can be repetitive if too many articles from the same source are back to back in their News Feed. We'll also be making an update to reduce how often people see several posts in a row from the same source in their News Feed.

### **Will this impact my page?**

We've started rolling this out and will continue over the coming weeks. We anticipate that most Pages won't see any significant changes. Some Pages might see a small increase in referral traffic, and some Pages might see minor decreases. As always, Pages should refer to our publishing best practices.

## **How does news affect stock prices?**

<http://www.sharemarketschool.com/how-does-news-affect-stock-prices/>

News is something that affects stock prices. Whether you're a long-term investor or a short-term investor, it's important to review the news headlines periodically. There may be positive news, negative news or news to which market may not react at all. One has to be smart enough to decode the news and quickly grasp whether it will affect his stocks in anyway and if yes, the degree to which the news can have an impact.

### **Positive and negative news**

News which is considered as positive tends to have a positive effect on stock markets and one can see share prices rising soon after the news come out in the open. Positive news — such as a joint venture agreement, securing of new orders, healthy sales numbers, discovery of huge oil reserves in a country, excellent financial results of accompany etc. should send a stock up. Stock prices react slowly but steadily to positive news.

- A curious fact that I have noted in some cases is that good news doesn't always translate to a jump in stock price; in fact, often the good news will produce a slight drop in a stock price. Why? Because unofficial news, also known as "rumors", can have as much impact on stock prices as official news announcements. The stock market often anticipates these news stories and "prices in" its expectations accordingly. When those expectations are confirmed with actual investment news, the price may temporarily drop. Of course, the reverse applies, too: if rumors swirling around a stock aren't proven true, investors may respond in surprising ways. If the surprise is a good one, stock prices can be driven upward as a result. That's why it's key to watch the investment news online and see how headlines influence stock quotes.
- Another point observed is that good news at home and bad news abroad can adversely push stock prices down. The international market is intertwined within the home market. Sometimes, all it takes is a bit of bad news from overseas to have a down market day.

Negative news has more far reaching effect on stock prices and investor sentiment than positive news. Stock prices react very heavily to negative news that it may seriously stop average people from wanting to buy stocks.

The sentiment of the market is also an important factor. In a largely negative atmosphere, the slightest bit of worrisome news is enough to send a stock tumbling.

### **'Good' bad news**

There is some news which might seem negative at first but it isn't actually negative. For example, firing of CEO or top officials. This may sound very negative at first, but it does show that the company's board of directors was bold enough to take drastic actions to help the company in the long run. Another example is lay-offing in a company. This is usually good for the company and its stock price because expenses will be reduced significantly and quickly. This should help increase earnings right away. It is not always a major warning sign; it could just be a reaction to a slower economy. It is one of the quickest ways a company can cut expenses if sales have not been meeting expectations.

### **Stock blogs**

Apart from news that comes in Medias like television channels and newspapers which brings out the actual news, Blog is another category that influences stock market investors. The difference between a blog and other Medias is that a Blog is usually maintained by an individual with regular entries of commentary. Most of them contain opinions on a particular event along with the actual news. So just in case you are confused about what's going to happen in stock markets after RBI hikes interest rate or what's in store for apple after Steve jobs era, these are sources to know what the people think about it following some good blogs on stock markets would help you to understand economic events better.

### **Conclusion**

The news has a direct impact on the market. It can change a bad day into a good one or a good day into a bad one. The relationship between the news and the market can be highly unpredictable by the best analysts. The next headline can turn out to be a boon or a bust.

- Good news will have a positive impact on stock prices
- Stock prices reacts to negative news quickly than it would react to a positive news.
- The good news locally can be overshadowed by the negative news across the globe.
- In a negative atmosphere, the slightest bit of worrisome news is enough to send a stock tumbling. The opposite is also true. To an extent, news effects largely depend on the reigning sentiment rather than the actual significance of the news.
- Just because the news is bad doesn't mean the stock market will have a bad day.
- News about the following affects stock markets: Crude Oil prices, IIP, Inflation, Unemployment, government policies, political unrest, draught or monsoon, company results, Global cues, FII activities, mergers and acquisitions , insider trading, bonus dividends and stock buy backs, stock splits, rights issue, inclusion or exclusion from indexes, change or death of top officials, loss of customers or break through deals, changes in demand and supply, fluctuations in prices of raw materials, war, terrorist attacks, joint ventures, rumors , new interventions etc.

## Referenced content



<http://www.msn.com/en-in/entertainment/hollywood/deepika-padukone-priyanka-chopra-in-the-race-for-the-next-bond-girl/ar-BBsRg1Z>

The screenshot shows a news article from the MSN Entertainment section. The headline reads "Deepika Padukone, Priyanka Chopra in the race for the next Bond girl?". The article discusses the possibility of Indian actresses Deepika Padukone and Priyanka Chopra replacing Daniel Craig as James Bond. It includes a photo of the two actresses and a sidebar with a Microsoft Azure advertisement and a "YOU MAY LIKE" section.

msn entertainment

Recent Searches: Deepika Padukone, Priyanka Chopra in the r...

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#AssemblyElections

Deepika Padukone, Priyanka Chopra in the race for the next Bond girl?

TODAY

India Today

1 day ago

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Deepika Padukone and Priyanka Chopra are both creating waves overseas. While Deepika has got the temperature soaring with 'XXX The Return Of Xander Cage', Priyanka has raised the bar by winning the villain's part in 'Baywatch'. And even as we in India celebrate the Desi Girls' achievements abroad, the two are giving us new reasons to cheer for them with every passing day or so it seems.

© Provided by India Today

If the latest reports from that part of the world are to be believed, Deepika and Priyanka are both supposedly being considered for the role of the next Bond girl. The last in the James Bond franchise, 'Spectre', hit the screens in 2015.

While the brains behind Bond are still trying to zero in on an apt replacement for Daniel Craig, it seems like Deepika and Priyanka are both trying hard to land the dream role of the next Bond girl.

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## Original content



<http://indiatoday.intoday.in/story/deepika-padukone-priyanka-chopra-in-the-race-for-the-next-bond-girl/1/664367.html>

A screenshot of a news article from India Today. The header includes the website name "indiatoday.in", a "NEWS" tab, a "LIVE TV" tab, a "MAGAZINE" tab, and a search bar. The main headline reads "Deepika Padukone, Priyanka Chopra in the race for the next Bond girl?". Below the headline is a subtext: "Deepika Padukone and Priyanka Chopra, reports suggest, are vying for the role of the next Bond girl." To the left of the text is a timestamp: "IndiaToday.in | Posted by Ananya Bhattacharya New Delhi, May 10, 2016 | UPDATED 17:29 IST". To the right is a promotional banner for "Aarogyam Presents Wellness Packages" offered by Thyrocare, starting from Rs 600\*. The banner features a couple and text about mobile collection service. Below the headline is a large photo of Deepika Padukone and Priyanka Chopra smiling. Social sharing icons for Facebook, Twitter, and Google+ are visible, along with a "4.39k SHARES" counter. A "EXPAND IMAGE" link is at the bottom of the photo. A sidebar on the right lists "Related Stories" with thumbnails for "Dwayne Johnson's 'sistah' love for Priyanka Chopra" and "Happy Birthday Anushka Sharma: Salman Khan to Priyanka Chopra, B-Town wishes the Sultan actor on Twitter". A "More From Movies" button is also present.

## **Patents**

**13/856398**

<http://www.freepatentonline.com/9235635.html>

**US09343511**

<https://patents.google.com/patent/US6547829B1/en?q=Content&q=Duplication&q=Detection>

**14/147789**

<http://www.freepatentonline.com/9633119.html>

**15326045**

<https://patentscope.wipo.int/search/en/detail.jsf?docId=US200949331&recNum=5&tab=Drawings&maxRec=488&office=&prevFilter=&sortOption=Pub+Date+Desc&queryString=F%3A%28web+crawling%29>

**US10611269**

<https://patents.google.com/patent/US7568148B1/en?q=news&q=duplicate>