Development of a Timeline tool

INTERACTION DESIGN PROJET 1

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Interaction Design 2014 -16

Declaration

I declare that this written submission represents my ideas in my own words and where others' ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all the principles of academic honesty and Integrity and have not misrepresented or fabricated or falsified any idea/ data/ fact/ source in my submission.

I understand that any violation of the above will be a cause for disciplinary action by the Institute and can also evoke penal action from the sources that have thus not been properly cited or from whom proper permission has not been taken when needed.

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July 2015

Acknowledgement

Internship Certificate

bRnd Studio

DATE: 18.06.15

To:
Sitara Shah
Interaction Design Program
IDC, IIT, Mumbai

Sitara Shah attended an internship at bRnd Studio between 4th May to the 5th of June 2015. The goals of the internship were to add new content to the Mobile Computing Timeline created by bRnd Studio, and to further develop the web based FutureCast (TM) tool that can be used in conjunction with the physical Timeline.

It was a pleasure working with Sitara, her strengths lie in the ability to clearly think through the user interactions and prototype them using tool such as Balsamiq, Keynote, Illustrator and Photoshop. The prototype has helped put a convincing form to the application which will assist in testing the hypothesis with potential end users.

I wish her all the best in her second year at IIT and hope to collaborate with her again in the future.

Best regards,
Sudhir Bhatia
Founder & Creative Director

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About bRnd Studio

bRnd Studio is a research and design studio that applies an integrative thinking process towards the development of product strategies for new and established markets. Ability to mine internal wisdom and observation, identifying problems areas, contributing tangible solution to a business are the studio's highlighted motive.

bRnd Studio

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Abstract

The internet users are mainly consumers of articles and information. There are very few who are the generators of information. The timeline tool is a web based research tool that assists in gathering and visualising historical data. It encourages and helps users generate content on the internet with more ease along with archiving data found on the internet. It also help the user compare existing articles and come up with new ones based on some observation, pattern and analysis.

This project requires building the right architecture and interface of this tool with good user experience. The interface should help the user filter and go through the information saved in the database easily. The experience of creating content should be really comfortable and encouraging. It is important to study the existing tools (Pinterest, Pocket, Clipboard etc..) that help in saving or bookmarking information. Building such a tool involves understanding the process of collecting data for research purpose. The physical Mobile Computing timeline created by bRnd Studio should be used to understand collection and categorisation of articles as well as building stories.

The goal of the project is to make the experience of collecting and creating information on the internet, along with collaborating with team on projects easy for researchers, professionals and students.

Introduction

The method of researching, learning and collecting information has been heavily dependent on the internet. The amount of people making it a habit to read for recreation or for work purpose has been increasing. Thus bookmarking, saving and archiving collected knowledge or archiving articles for later use plays an important role for readers.

There are some existing tools like Pinterest, Pocket , Flipboard which allows users to bookmark or collect articles in different ways. But the problem arises when research done leads to going through a lot of articles. Tools mentioned above are mostly avoided since it is difficult to go back and forth articles to come up with conclusions. Handling the articles on such platforms and making one's own notes on another platform makes is difficult to concentrate. Tools like Pinterest allow articles with pictures to be collected only. Solutions like taking printouts instead would lead to paper wastage.
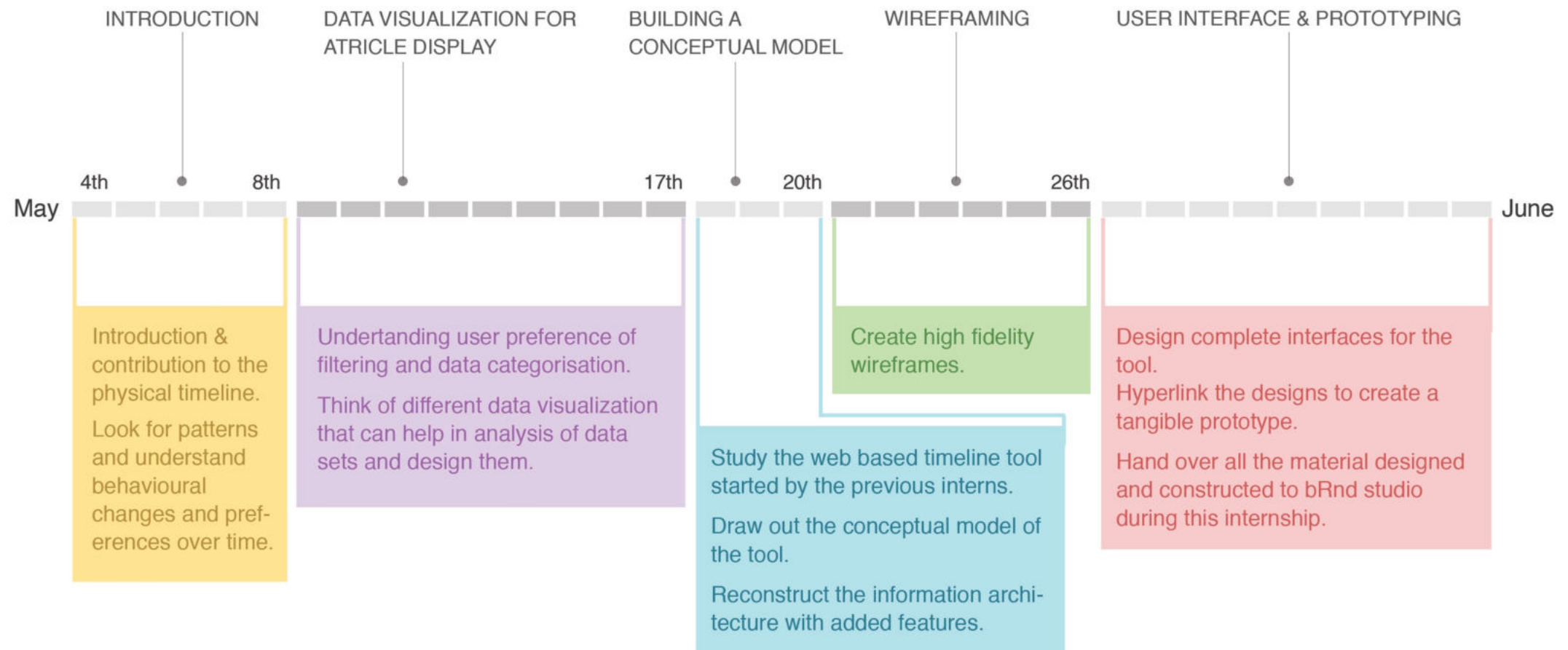
The timeline tool designed is a tool that helps one collect information, sort it and view it in different layouts based on categories, Timeline (in case there is a history to be noted) and by date. It lets you compare articles and create new stories based on observations and conclusions. The tool encourages the user to make richer analysis by providing views that help in pattern recognition based on detailed tagging. It helps a great deal if used in conjunction with the physical Timeline.

Thus this tool not only helps researchers and professionals to future caste but also students to collaborate with each other while working on group projects. This tool could also encourage the ones who find value in generating articles or writing blogs.

Goals

- Add some content to the existing Mobile computing timeline created by bRnd Studio to experience the process of data collection and creating stories.

- Add relevant, important features to the web based timeline tool and create high fidelity wireframes.

- Design complete UI and UX of the timeline tool that can be used in conjunction with the physical Timeline and create a prototype which would help put a convincing form to the application which will assist in testing the hypothesis with potential end users.

Project Timeline

INTRODUCTION

DATA VISUALIZATION FOR
ATRICLE DISPLAY

BUILDING A
CONCEPTUAL MODEL

WIREFRAMING

USER INTERFACE & PROTOTYPING

May 4th 8th 17th 20th 26th June

Introduction &
contribution to the
physical timeline.

Look for patterns
and understand
behavioural
changes and pref-
erences over time.

Undertanding user preference of
filtering and data categorisation.

Think of different data visualization
that can help in analysis of data
sets and design them.

Study the web based timeline tool
started by the previous interns.

Draw out the conceptual model of
the tool.

Reconstruct the information archi-
tecture with added features.

Create high fidelity
wireframes.

Design complete interfaces for the
tool.
Hyperlink the designs to create a
tangible prototype.

Hand over all the material designed
and constructed to bRnd studio
during this internship.

Design Process

1. Reading, Researching and Contributing to the Timeline

Experiencing the act of researching and finding data relevant enough to contribute towards the timeline was the first task. This not only helped me find incidental data but also point out behaviour changes of consumers at some point.

This included articles covering some topics like :

- Subscription of mobile phones
- Wearable technology
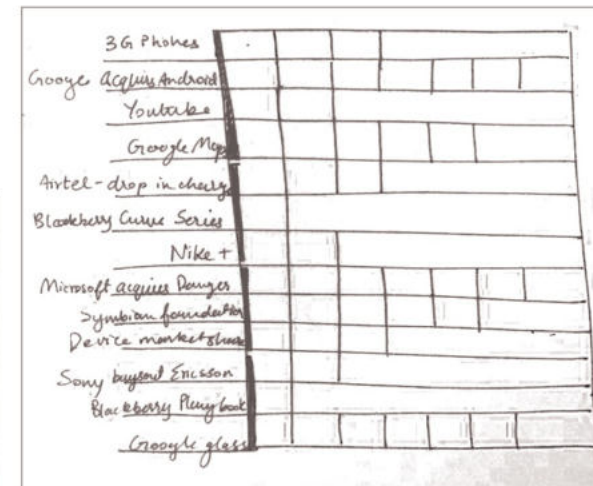- Internet usage
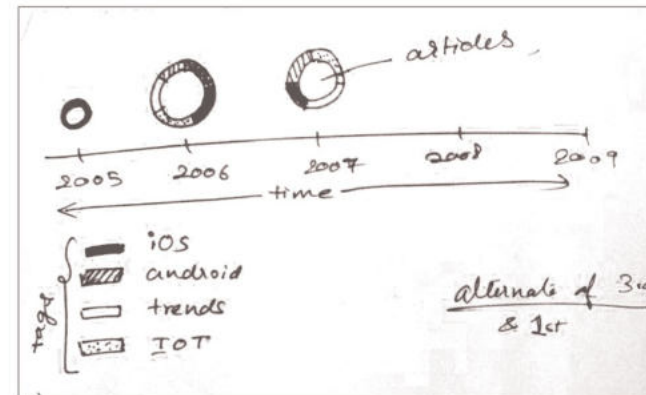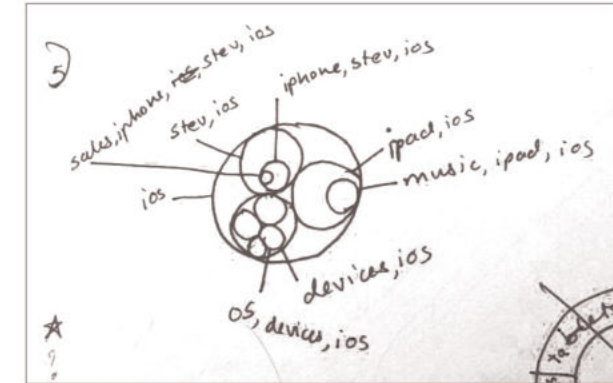- History of speech recognition
- Internet of things

The sticky notes were then added to the physical time line of Human Computing.
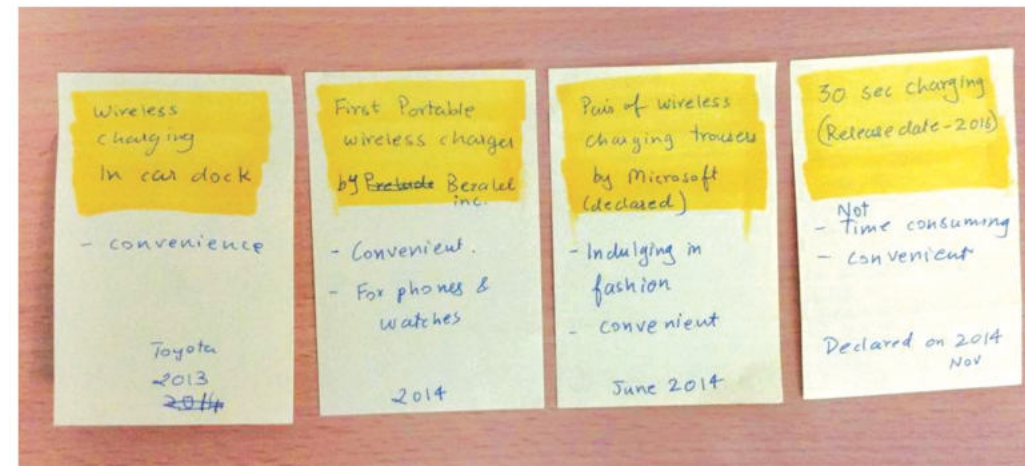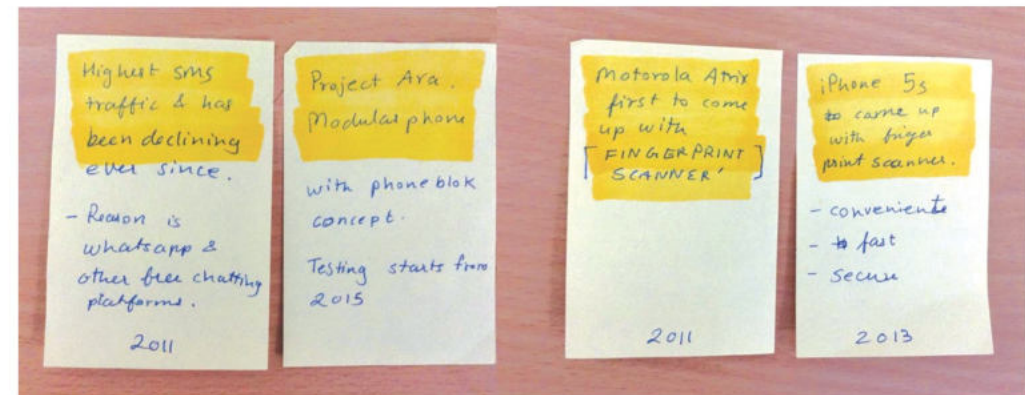
2. Data visualisation to representing different ways of displaying information collected on the web-tool.

Data visualisation libraries like:

- D3.js -Data Driven Documents
- ChartJS
- Chartist.js
- Google charts
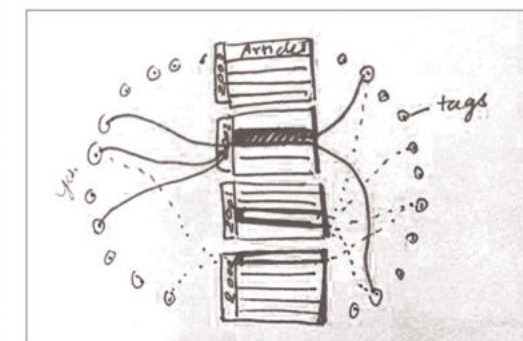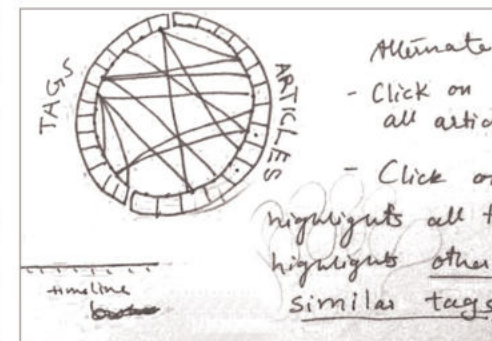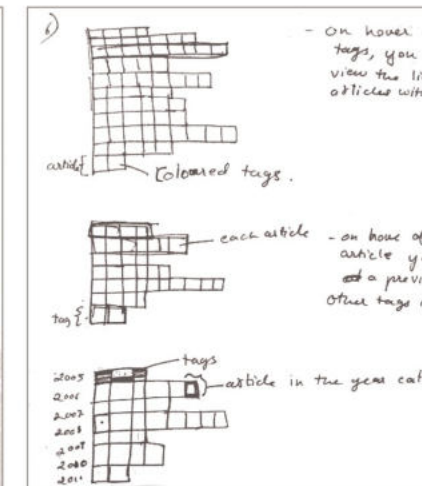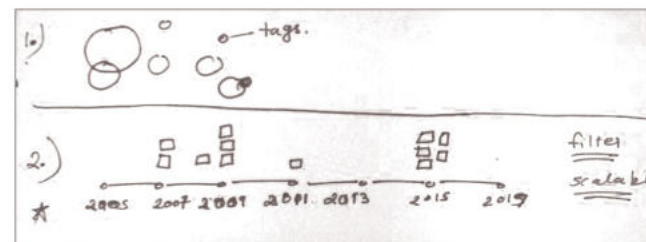
3. Creating a Conceptual Model of the flow

There were some important features that this tool needed to have:

- Filtering and viewing information in different ways
- Ability to compare multiple articles and create new stories
- Ability to collaborate projects with multiple people

Keeping the above features in mind, a conceptual model was created.
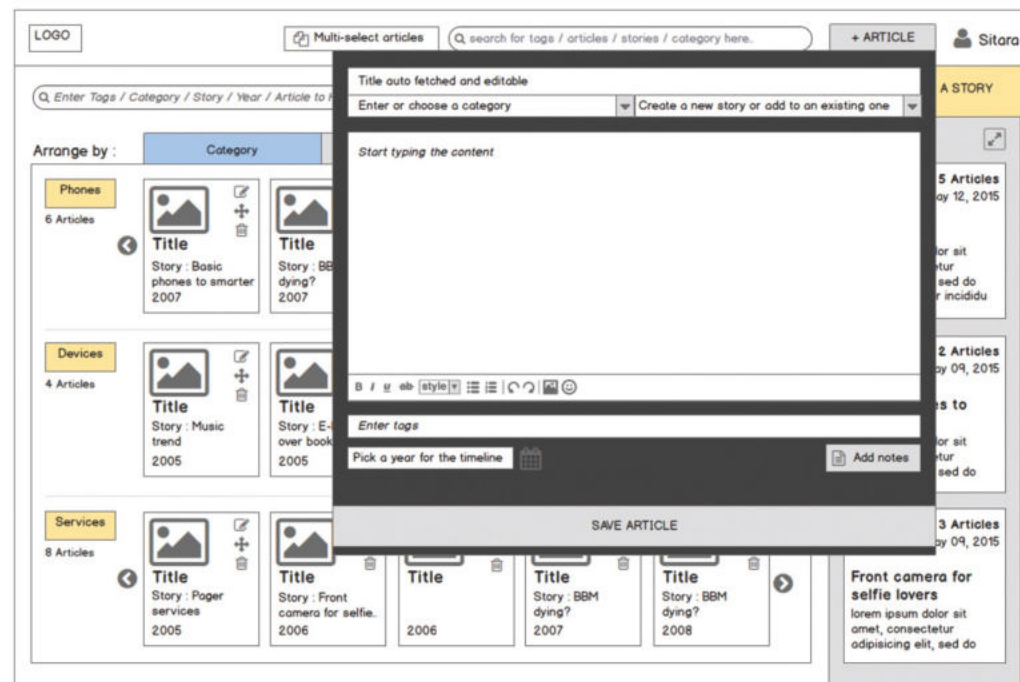

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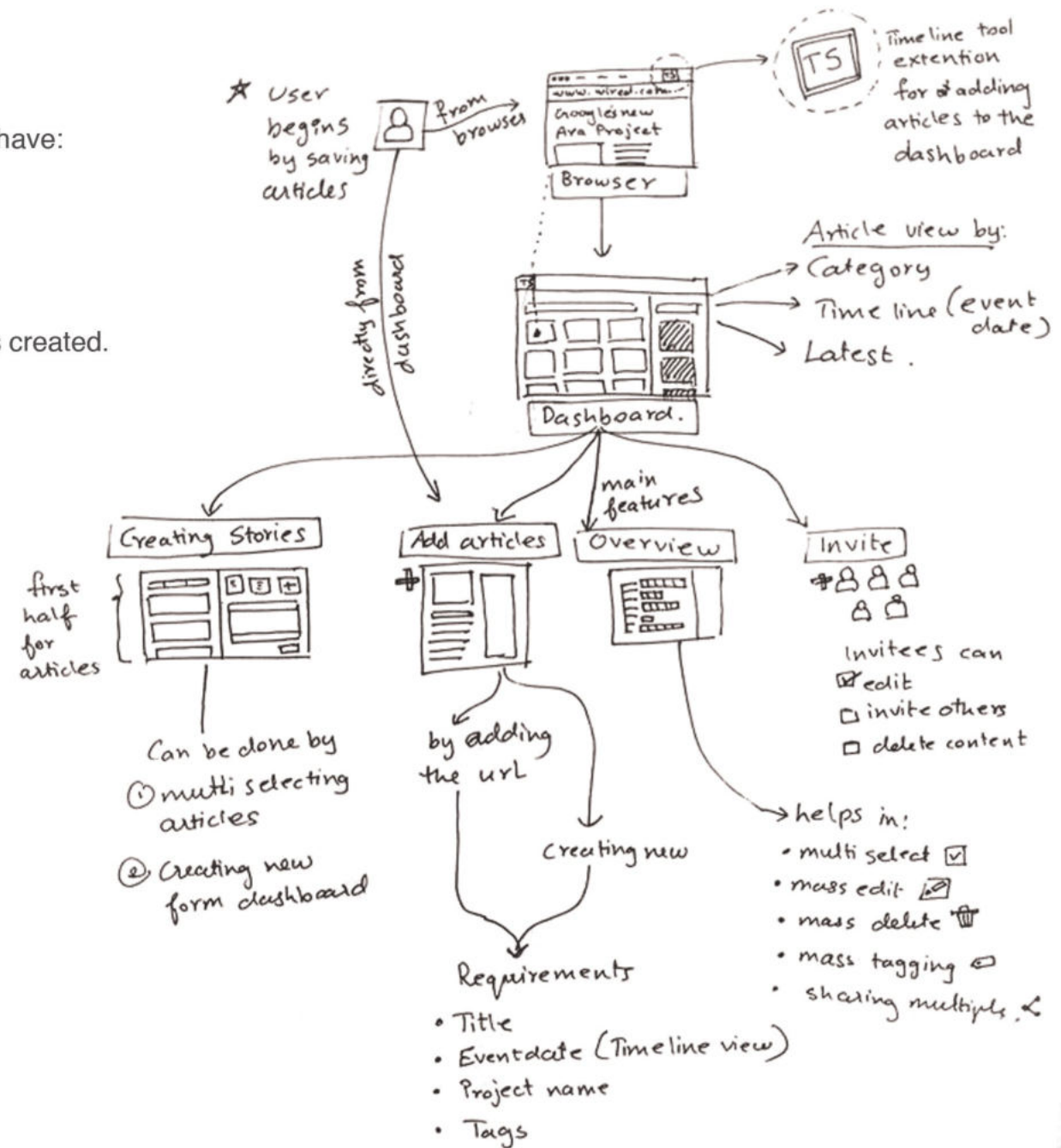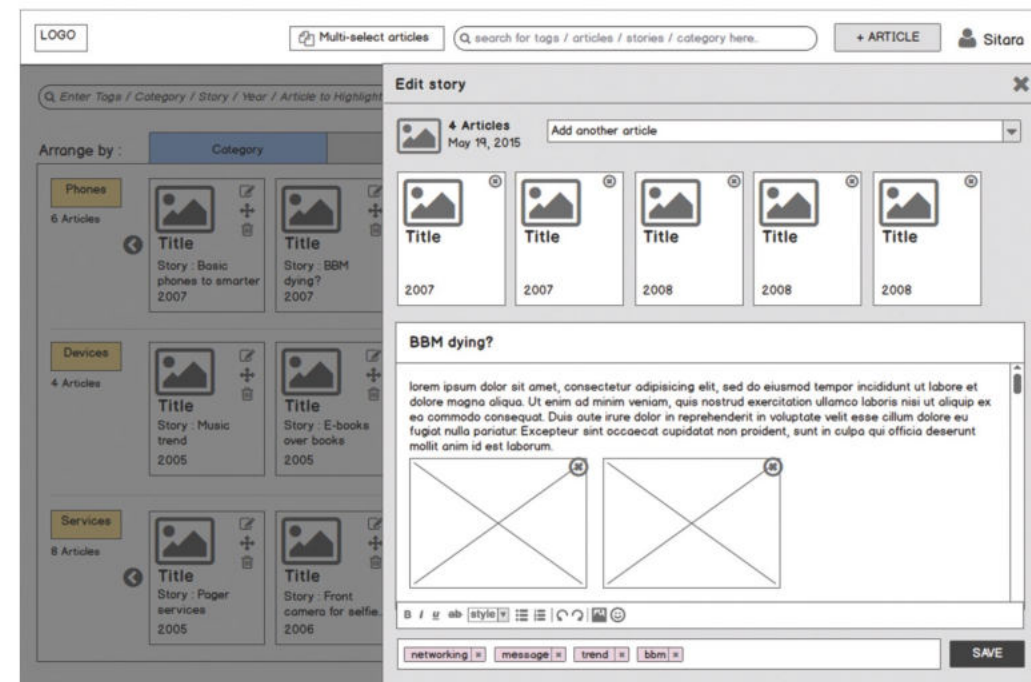
4. Wire-framing on Balsamiq

After sketching a flow, basic wireframes were built on Balsamic software. A more refined version was created after the first review.
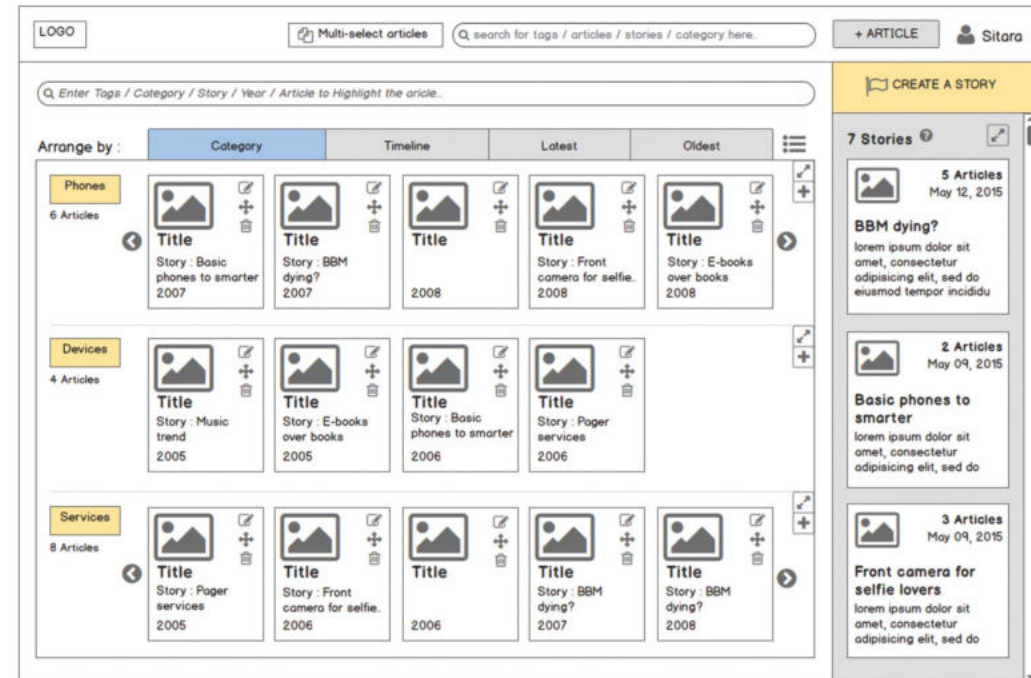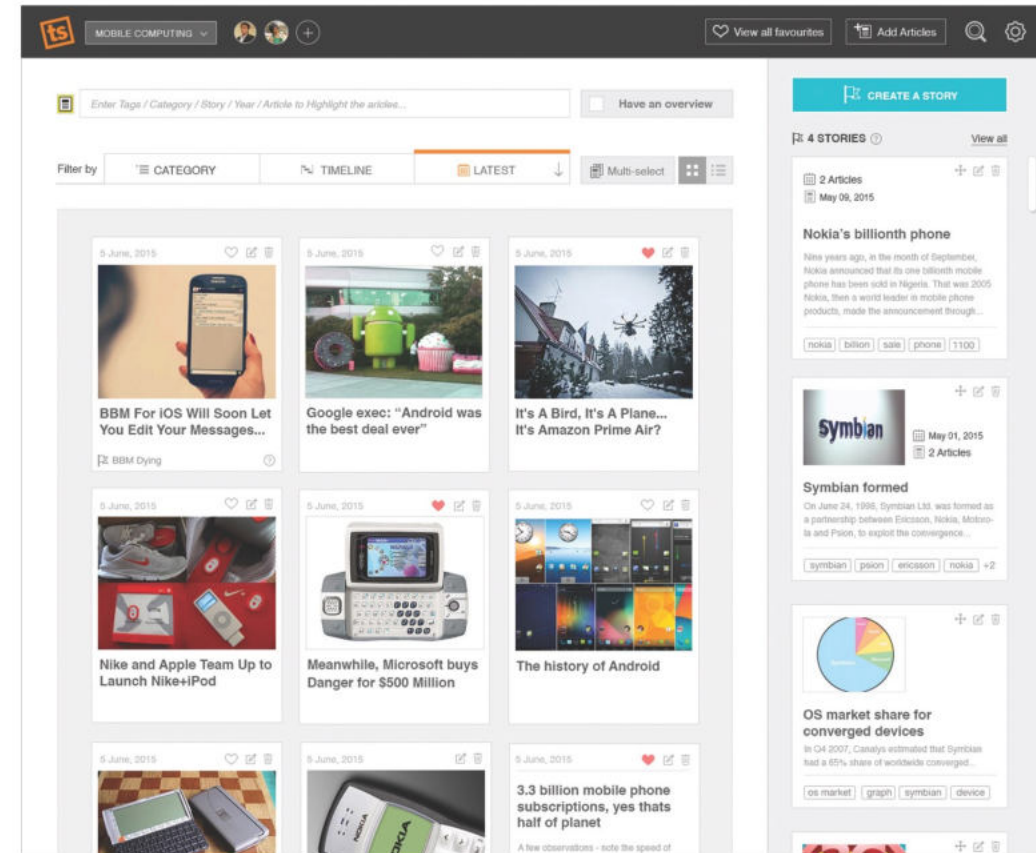

Dashboard

Add Articles

Story creation

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5. Designing the interface

The interface created by the earlier interns did not include some features since their focus was to refine the physical timeline. There were refined interactions and experiences listed to be included to be incorporated along with the features. Below are some of them listed:

- A user should be able to view the articles bookmarked in three major displays-

  a) Category-wise

  b) Timeline view (in the case of historic data collection) and

  c) Latest view (based on the date when it was saved)

- There should be a display where the user can compare different tags, categories that can help in pattern formation.

- While creating stories, the user should be able to view different articles and add in the stories without leaving the screen.

- A user should be able to make notes so that it can be used later for creating stories.

- An article on the web should be easily saved in the database of the project currently worked upon.

Dashboard with latest article view

5. Compilation and submission of deliverables

After making the final changes to the designs, a basic prototype was created using keynotes to represent the use and experience of this tool. This prototype was meant to be used to show different target audiences and companies for relevant feed back that could be used to take this design to the next level.

Interface and Interactions

1. Dashboard

The dashboard consists of the:

- Articles saved to the project
- The stories on the right panel created by the user
- Header that has Invite, Add articles, The overall search

2. Article Box

The articles can be viewed by Category, Timeline or by Latest. It can be further filtered by putting tags in the search bar.

Each article tile displays:

- The picture of the article. Incase the article doesn't have one, it displays limited content of the article.
- The title
- The story it is a part of
- Timeline (event date) if there is any important date to be displayed.
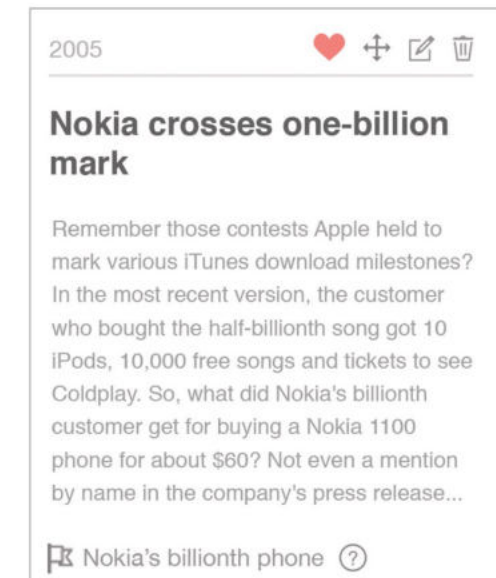- Four action icons : Favourite, Move, Edit, Delete

The user can directly drag and drop articles to an existing story on the right panel. This can be done individually or multi-selecting a few articles and drawing them into the story grid.
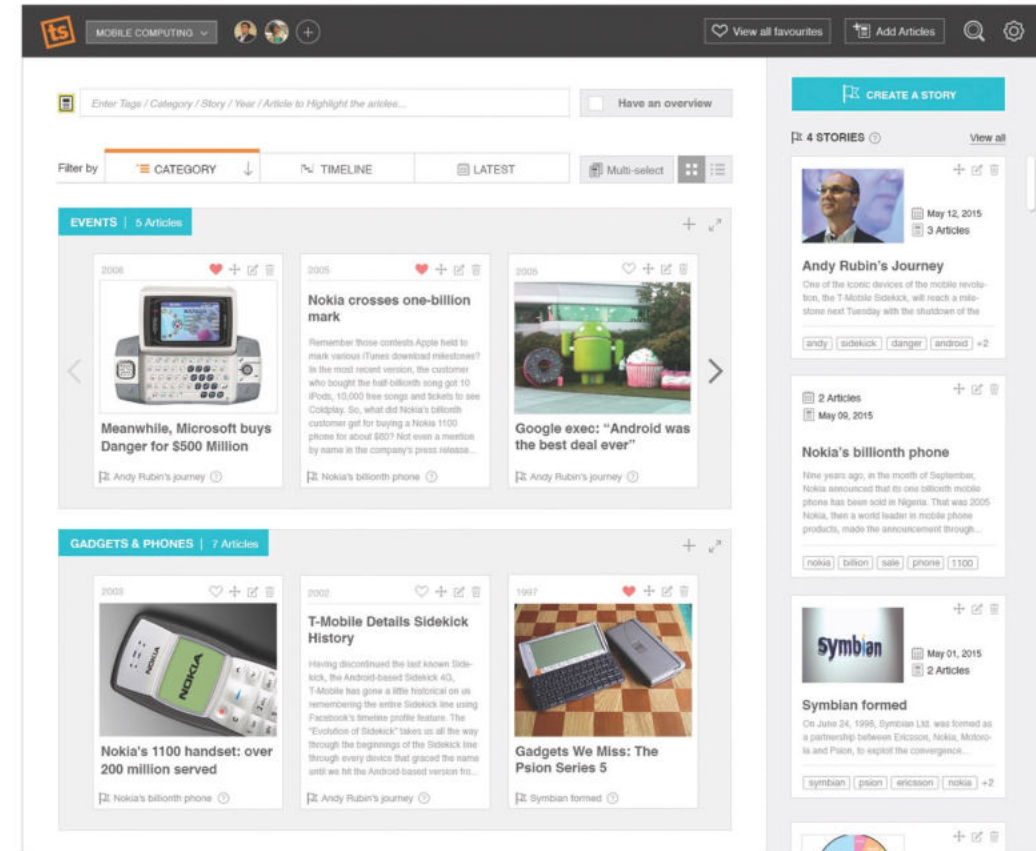
Dashboard
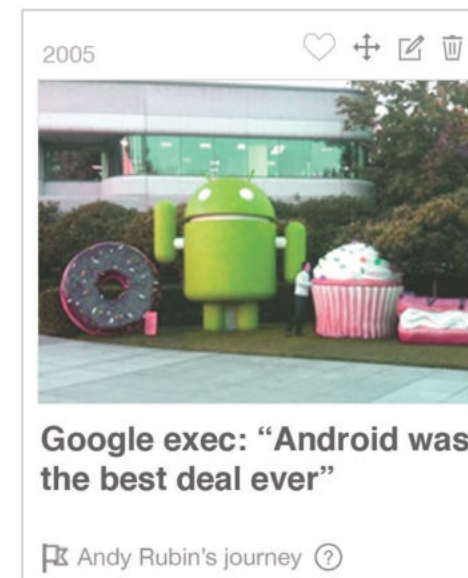
Article box with a picture

Article box without a picture

3. Highlight search

This bar, above the articles helps in further filtering articles by high-lighting them. One can enter elements such as: Tags, Category, Timeline date year, Article Title, Story title.

Highlighting helps in the following:

- Observing patterns and analysing data
- Quick search
- Collecting articles for creating new stories
- Mass tagging
- Mass sharing
- Creating new category
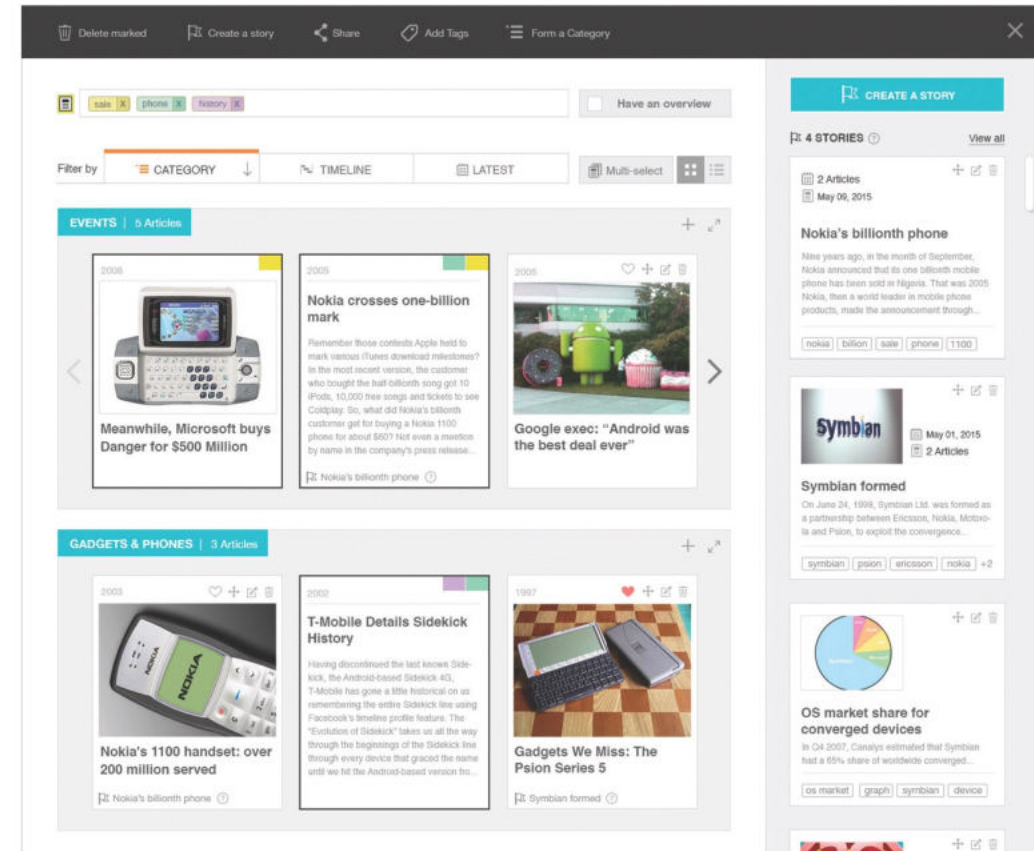
Highlighting articles by entering tags

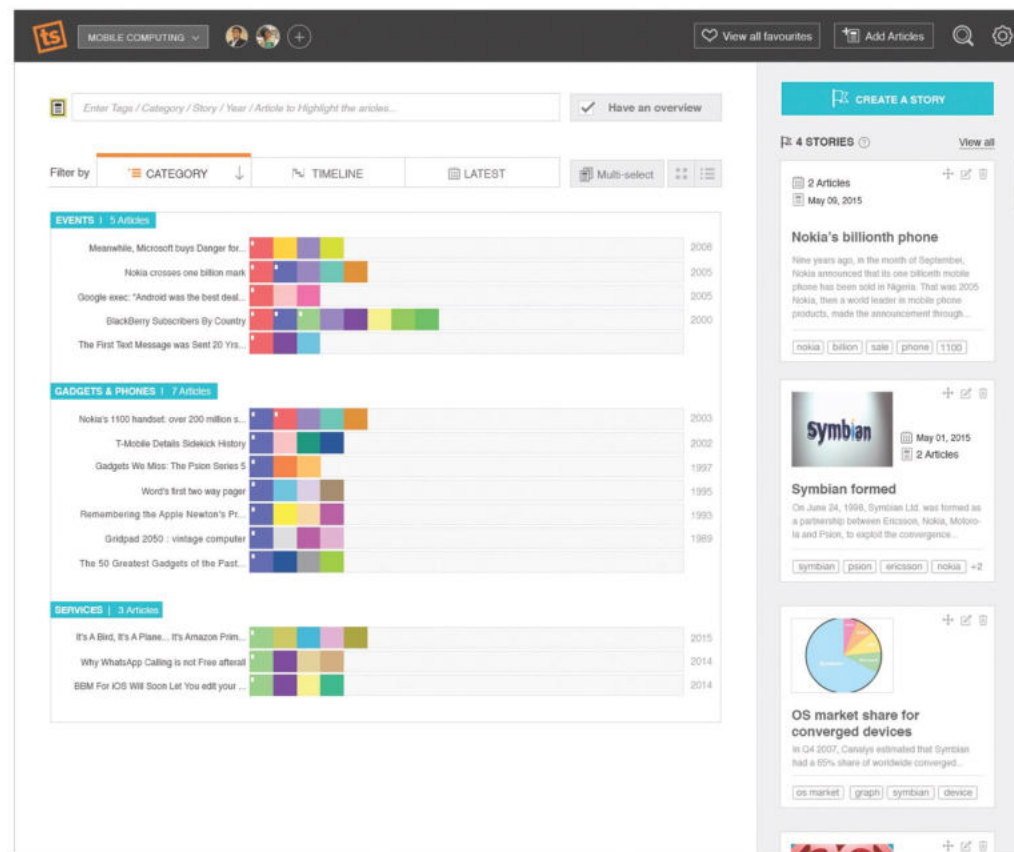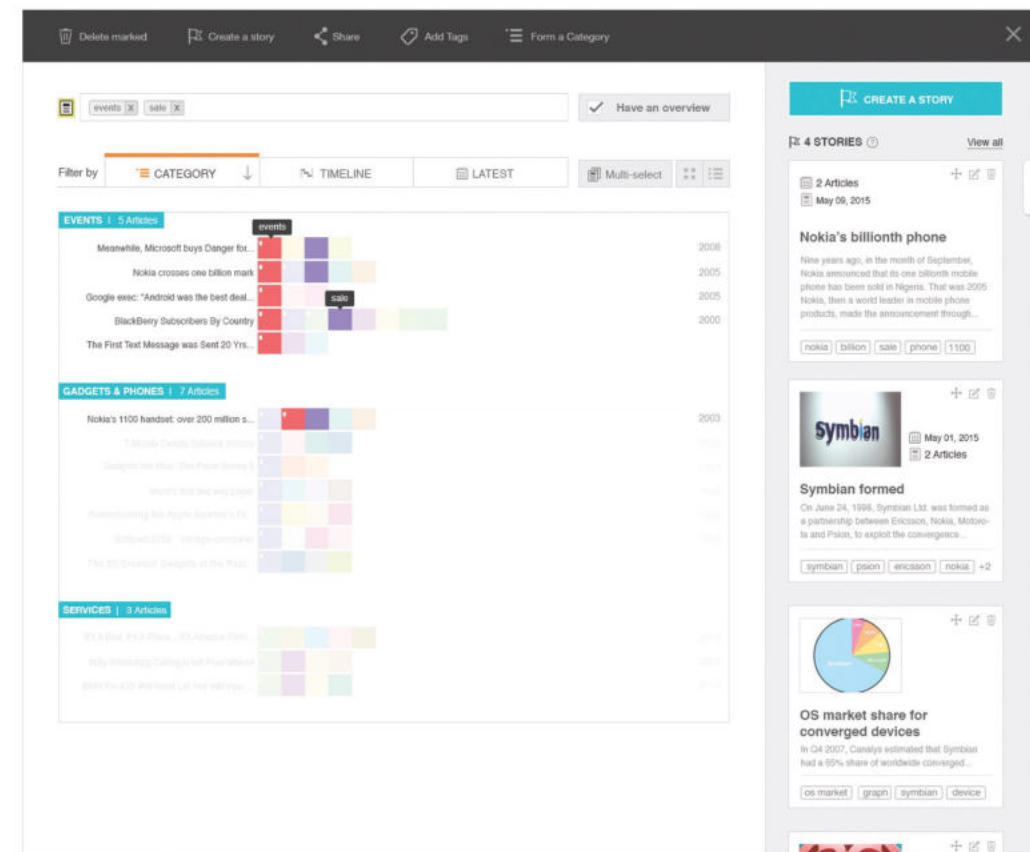# 4. Overview of Articles

This view helps in viewing all Categories and tags an article has along with timeline dates.
It displays more content at a time compared to the dashboard view since it gets rid of grid view. It also helps to have a bird's-eye view over the project and details.

Overview of articles category-wise

Highlighting tags in category overview

5. Story

A story is a note or a write up on an observation, analysis, pattern finding or even future casting done based on the articles saved to the database. A story can be made with one or more articles involved.

Story creation screen view is divided in two parts:

- Display of articles selected for the story followed by rest of the articles (in Category, Timeline, Latest view).
- The left half is the area for story creation. It has the area for displaying the articles selected, Title, Content for the story, Timeline date and tags.

Interactions :

- The articles on the left can be expanded to read for referring while the user is creating the story.
- Articles can be directly dragged and dropped on the top left section where articles get added to the story.
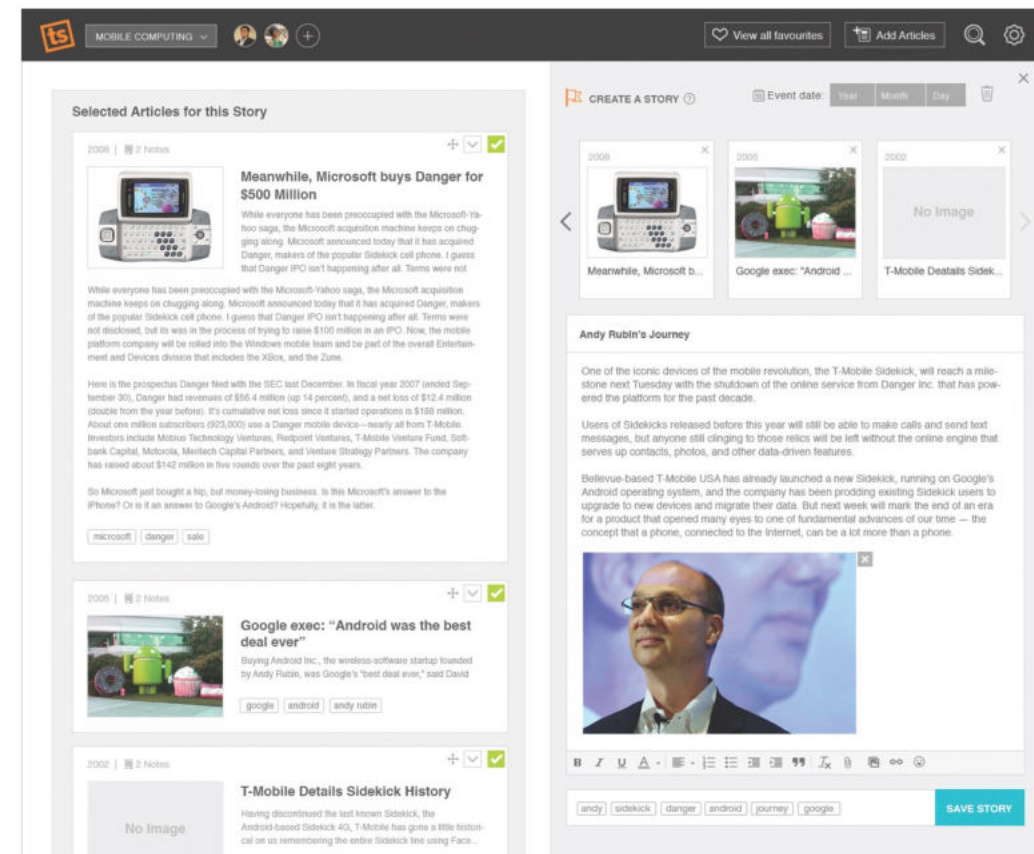
Story creation

Takeaway

The process of going through the physical time and contributing to it made me empathise with the target audience quickly. The hurdles one faces while digging for data on the internet and the value of it to the user once its found, compiled and saved was made quiet clear during this stage. I learnt the difference between just taking user interviews and doing so along with performing similar tasks. This method helps a great deal in human centric design solutions.

I found that becoming sensitive to human behaviour and discovering the reason behind change in it rather than just concentrating on change in human needs makes it more accurate to future cast.

I understood the power of story telling. To make others believe in you product they need to feel what and see the same as you do. Taking them through the process while forming interesting stories keeps them hooked to listening and believing what you have to say. Story telling doesn't just get used in manipulating but can help the user understand the product better and clearer when they have a story to relate to. Indirectly this process prevents people from forgetting it.

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