Please provide as much information as possible as it would help us evaluate the submission better.

#### Product/Idea

#### What is the problem you are trying to solve?

(Do you have any supporting statistics from reliable sources, if so please do share.)

With the fast pace of modern life, it is impossible to read long news articles every day. As per <u>research</u>, the attention span is reducing due to digital learning. With the reducing attention span of the audience, citizens are increasingly looking for authentic information in the fastest possible manner..

With relation to the above problem, we have come up with the idea of developing an app. The idea of the app is to consider all the press releases from PIB's site using web crawler, extract the text from the pdf, preprocess the data and run the ML model. The summarised text is then sent to apps' backend which sent a notification to PIB officials to vet and edit the summarised text in 50-60 words. In case, the PIB officials reject the summary, we use that data to train the model via supervised learning. The user gets notified about the summary generated based on the ministries he/she has chosen to subscribe to.

### How does your idea address the problem?

- The app condenses the clutter and provides ONLY PIB-certified news in precise format
- In addition, the app also allows PIB officials to edit the summary and customize it.
- With this app, the officials will be able to de-clutter the humongous data and bridge the gap between the right audience and the right information.
- The app as future scope aims to provide the feature of infographics by precise conversion of tables to bar graphs or drop downs etc.

### Who are the target customers?

- People who spend a lot of time on the mobile and don't follow any other traditional channel or read a newspaper.
- The major followers of the app fall in the age group of 18-40 years.

### What makes your idea unique?

One of the USP is the vet and edit access to PIB officials in order to ensure the authenticity of the disseminated summary.

As a stretch goal, the app will provide the feature of infographics by precise conversion of tables to bar graphs or drop downs etc.

# • Do you have a revenue generation model? If so please do share.

As the app is made to facilitate the demand of government. We don't intend to generate revenue. We aim to generate revenue as a content aggregator by driving users' to ad publishers' websites and also through advertising commissions. These ads can be eliminated via premium membership that can be availed by minimal charges. The revenue generated will help sustain the costs of server etc.

Future Scope- add a layer of personalisation engine to target advertisements using Artificial Intelligence. Analysing the behavioral pattern of readers and looking at previous history of the type of content consumed by the user.

### • What are the geographies, do you think the idea would be suitable for?

- Our platform is targeted at the smartphone generation across India, users who are short on time and want to stay updated with the current affairs. For user's support the press releases' summary is multilingual i.e. can be viewed in language of users' choice.
- Thus, a majority of our users would be mostly from metro cities, Tier 1 and 2 cities, however, we can expand our reach to sub-rural and rural areas as well.
- The traction across the age group of 18-24 years is estimated to be higher than 24-35 years.

#### What are the risks associated with your idea and how can you mitigate it?

The biggest risk with the text summarization of news articles is the incorrect manipulation of data in order to summarize the text.

The plans to mitigate is in two folds:

- To eliminate fake news, the news verified by PBI will be entertained.
   In addition to this, the app also allows PIB officials to edit the summary and customize it.

# Who are the stakeholders involved in order to take bring this idea/product/service to the market? (Ex: State govt, Department of trade and taxes, pollution control board, Manufacturers)

The external stakeholders include:

- 1. Policy Planning Cell
- 2. Ministry of Information & Broadcasting
- 3. Press Information Bureau
- 4. Server on which we are hosting our apps

#### **Intellectual Property Assessment**

#### • Is your idea patentable or patented?

(If so please provide details)

At the moment it is not patentable, however in the future we aim to make our own summarizer model.

#### Is your idea built existing work? If so how is it different?

Due to the use of PIB Press releases and the vet power given to its officials apart from summarising in 50-60 words is different from other products that exist in the market. Spread of false information can be prevented by human intervention.

### **Prototype/ Proof of Concept**

 What is the nature of the prototype/ proof of concept, you would be able to submit? (Ex: Github repository, Hardware prototype) https://github.com/Rinav07/SIH-App

• Have you completed pilot tests for your prototype/POC? If so please share.

No we have not run any pilot tests at the moment. However we have run the prototype in restrictive environment. However we have manually done certain things i.e. have not used web crawler, however we plan to automate those things.

What is the approximate cost of developing the prototype?

We have invested time in developing the software as it is all software, there has been no monetary aspect involved.

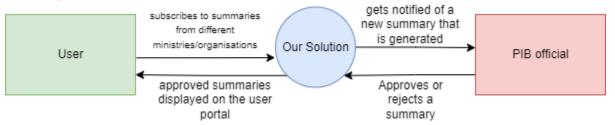
•	Please share	the relevant	elements	while submitting	the POC	Prototype
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Software Architecture- Control fl	flow
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#### APPLICATIONS PIB Official frontend User Application frontend PIB Site Accepts/ Rejects the notifies of new summary Text Summarizing summary addition of a Model press release data category newly for which the accepted Pre-processing released users display Web Crawler PDF Text Extractor subscribed to here PDFs checks for new extracts data from the press releases PDF and generates a Mode on the PIB site string summary Backend and Database for if PIB official rejects, summarised text used for dataset creation and applications training data i.e Reinforcement Learning

## **SERVER**

#### Block Diagram of Data Flow



# **Supporting details**

### • What regulatory requirements have to be met to bring the idea to life?

We have assumed that the extractive model gives us accurate results with 50-60 words summary, however, we are open to exploring the abstractive model as well.

# • Do you have a business plan/ commercialization strategy? If so please share.

As the app is made to facilitate the demand of government. We don't intend to generate revenue. We aim to generate revenue as a content aggregator by driving users' to ad publishers' websites and also through advertising commissions. These ads can be eliminated via premium membership that can be availed by minimal charges.

Future Scope- add a layer of personalisation engine to target advertisements using Artificial Intelligence. Analysing the behavioral pattern of readers and looking at previous history of the type of content consumed by the user.

#### What is rough estimate of manufacturing/operational costs?

The operational cost is only for hosting the backend and frontend part of application on servers. Ther's no manufacturing costs as it is as it is all software, there has been no monetary aspect involved.

• What is volume of products/ amount of revenue do you expect to make in the first year?

The volume of products depends on the number of users who are expected to use. Although people of any age and gender can use but we can't comment on the number of installs and how much revenue shall be generated by ads.