Mass Migration during COVID 19:

Storytelling through Data

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Introduction

COVID-19 • Migrant Labourers • Objectives

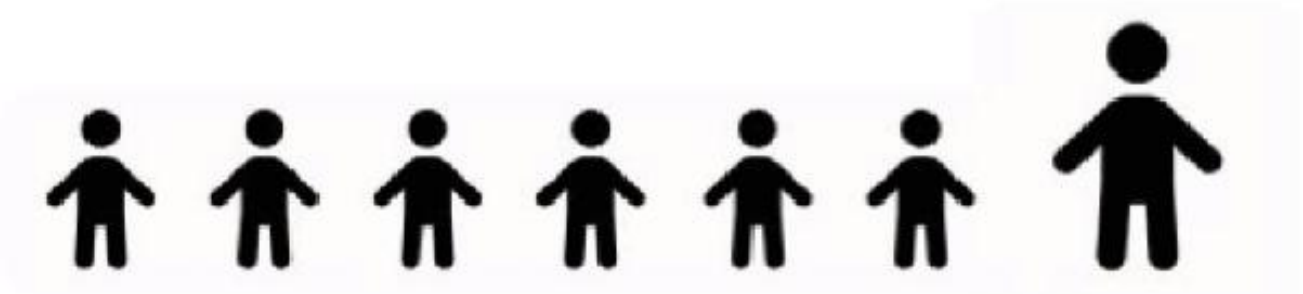
COVID-19

Worldwide

79.9 M

In India

10.2 M



Migrant Labourers

Total Migrant

139 M

Inter-state Migrant

56.5 M

Sharma, Krishnavatar (1 October 2017). "India has 139 million internal migrants. They must not be forgotten". *World Economic Forum*. Retrieved 13 May 2020.

Migrant Labourers

https://scroll.in/latest/957570/covid-19-lockdown-man-collapses-dies-halfway-while-walking-home-300-km-away-from-delhi

Objectives

1. Identify, Collect and document data related to identified domain (migration) from within India.

2. Design a data driven narrative for the easy consumption of the collected data.

Process

Data Collection

Picking a domain

1. Listed few potential domains and interesting stories/events related to domains.

2. Started looking for data related to each domain in various online publications

Phase 0
Phase 1
Phase 2
Data types

Data
Collection

Phase 0

Phase 1

Phase 2

Data types

Coarse Data

Title

Title of the publication explaining the content

Description

Detail of additional contents in the publication

Link

Source details

Date of publishing

To help align documents in timeline.

Data

	Domain	topics	Title	Description	Link	te of publishing	Documnet name
			Data on 2011 census. The state with highest and lowest incomingandoutgoing populations		https://www.hindustanti		
	Migration		Lockdown displaces lakhs of migrants	The parent story on migration by thehindu	https://www.thehindu.cc	31 March	ID1
		How many people migrated	Story of few people who migrated		https://www.bbc.com/ne	9 May	ID13
		Government appointed vehicles for migration	Nat geo's stories of few people		https://www.nationalgec		
		People walking on the roads	Data on migration in india as per 2011 census and 2017. Along with supporting press releases and docs		https://www.prsindia.or		
		Incident in Mumbai when people gathered outside railway station	Migrant workers to get free food grains		https://www.thehindu.cc		ID2
		People in delhi gathered outside bus stand	26 Lakh migrant workers in half way		https://www.thehindu.cc	4th June	ID3
			Central Labour Commissioner's data on stranded migrant workers		https://clc.gov.in/clc/no	2 June	ID4
		Celebrities arranged vehicles for migration	Celebrities who helped during corona		https://www.ndtv.com/pi		ID5
			Swara Bhaskar distributes footwear and help migrants by arranging tickets back home		https://yourstory.com/s	3 July	ID7
			Celebrities who helped during corona		https://www.tribuneindia	24 May	
			Shabana Azmi feeds 10 Lakh migrants		https://swachhindia.ndt	30 April	ID8
			Migrant workers the emergence of invisible India		https://www.hindustanti https://www.news18.cor	03 June	ID8

Data
Collection

Phase 0

Phase 1

Phase 2

Data types

Data Extraction

Date
Date of event

Data-Type
To segregate the points

Associated Region
City/ State

Associated Community
Cohorts, linking to other states

Content
Summary of the data point

Continuation queries
Additional questions that can be researched upon

Media link
pictures/ videos etc.

Source
Publication link and date

Data

Data Extraction

Date	Data-type	Sub-type	Associated region		Associated Community	Content	Details	Source Link	Additional qu
			Sub region	State					
			Vapi	Gujarat		2 migrant workers died in a road accident	Migrant Worker	https://timesofindia.indiatimes.com/city/surat/speeding-ac	
28 March			Kushalgarh	Rajasthan		Magarda Todi Prakash died in a road accident	Migrant Worker	https://www.naidunia.com/madhya-pradesh/jhabua-jhabu	
28 March			Gurgaon	Haryana		5 migrant workers died in a Road accident	Migrant Worker	https://beyondheadlines.in/2020/03/deaths-due-to-lockdo	
			Jaipur	Rajasthan		Sher Singh died due to exhaustion while walking		https://www.amarujala.com/uttar-pradesh/kanpur/kannau	
29 March			Rampur	Uttar Pradesh		Yasin died in a road accident	Migrant Worker	https://beyondheadlines.in/2020/03/deaths-due-to-lockdo	
29 March			-	Haryana		4 migrant workers died in a road accident	migrant worker	https://archive.org/details/MG-20200521-WA0002-jpg-u0	
30 March			Gwalior	MP		Sukhlal Ahirwar (40) died in a road accident while walking	Migrant Worker	https://www.naidunia.com/madhya-pradesh/gwalior-he-34	
31 March			Hyderabad	Andhra Pradesh		1 daily wage worker died due to starvation	daily wage worker	https://www.newindianexpress.com/cities/hyderabad/2020	
31 March			Sitamarhi	Bihar		Bablu died due to assault while migration	migrant worker	https://www.indiatoday.in/india/story/covid-19-migrants-k	
31 March			Anantnag	J & K		Zubair Ahmed (18), Riyaz Ahmed (19), Ghulam Moh-ud-Din (30) died after being buried under snow		https://indianexpress.com/article/india/jammu-and-kashm	
1 April			Lakhimpur Khe	Uttar Pradesh		Roshan Lal (27) died due to police brutality	migrant worker-daily wage worker	https://www.nationalheraldindia.com/india/uttar-pradesh-dalit-youth-kills-self-after-being-tortured-by-police-for-breaking-quarantine-rule	
1 April			Guntur	Andhra Pradesh		1 migrant worker (21) died due to police beating	migrant worker	https://newsd.in/andhra-pradesh-youth-ends-life-after-cops-seize-cycle-for-violating-lo	

Phase 0
Phase 1
Phase 2
Data types

Identified data types

Overview/Analysis
Data related to a longer timespan

Movement
Medium, size, origin, destination, interesting detail

Rule / Policy update
Movement rules, border status

Announcements
Related to future, beginning/end of any of these types

Service Introduction
Helplines, facilities

Donations
To assist travel or survival

Miscellaneous
Accidents, protests, political clash etc.

Ideation

Timeline Ideas • Story Ideas

Ideation

Plotting on Map

Idea 1

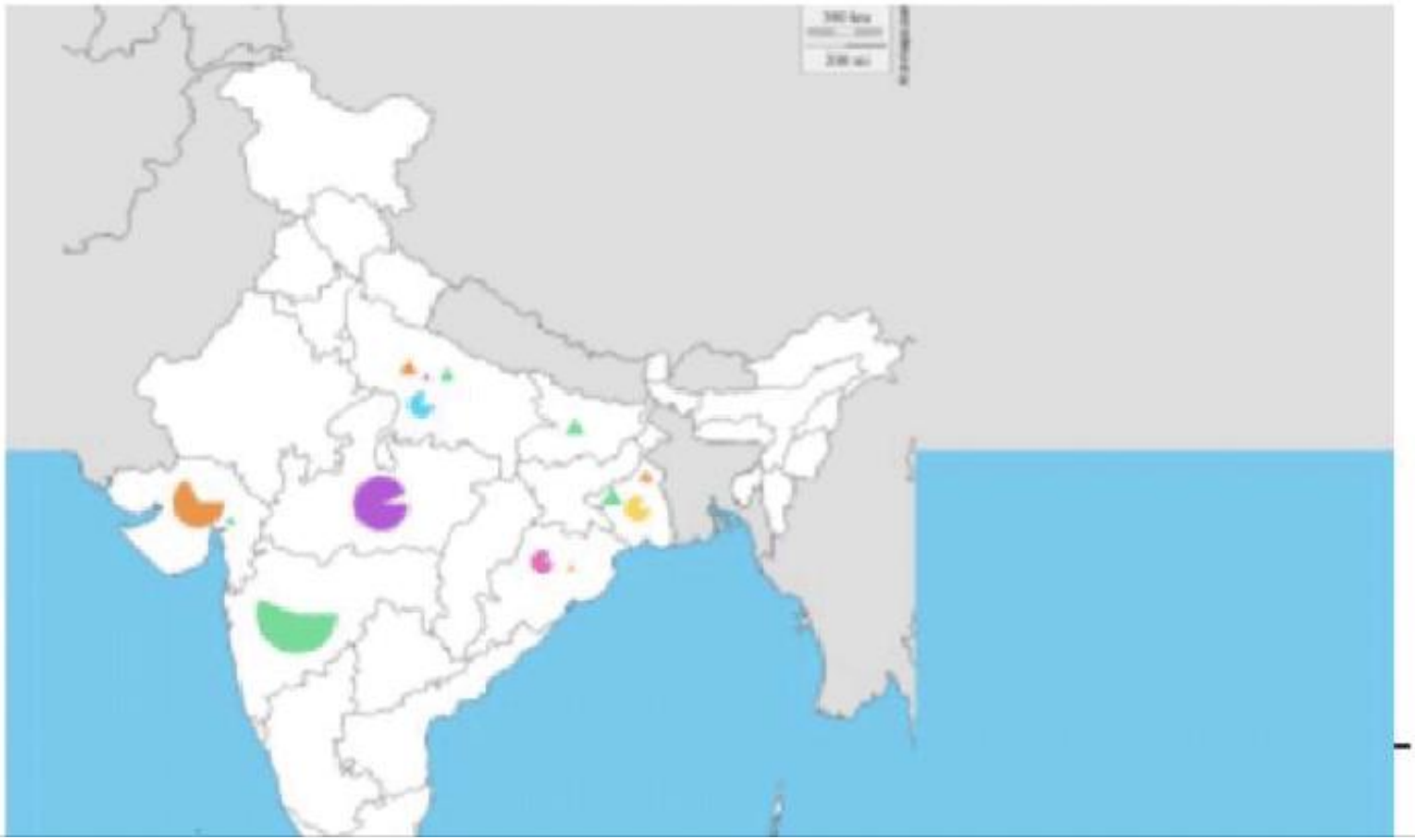
Idea 2

Idea 3

Idea 4

Idea 5

Evaluation



Ideation

Plotting on Map

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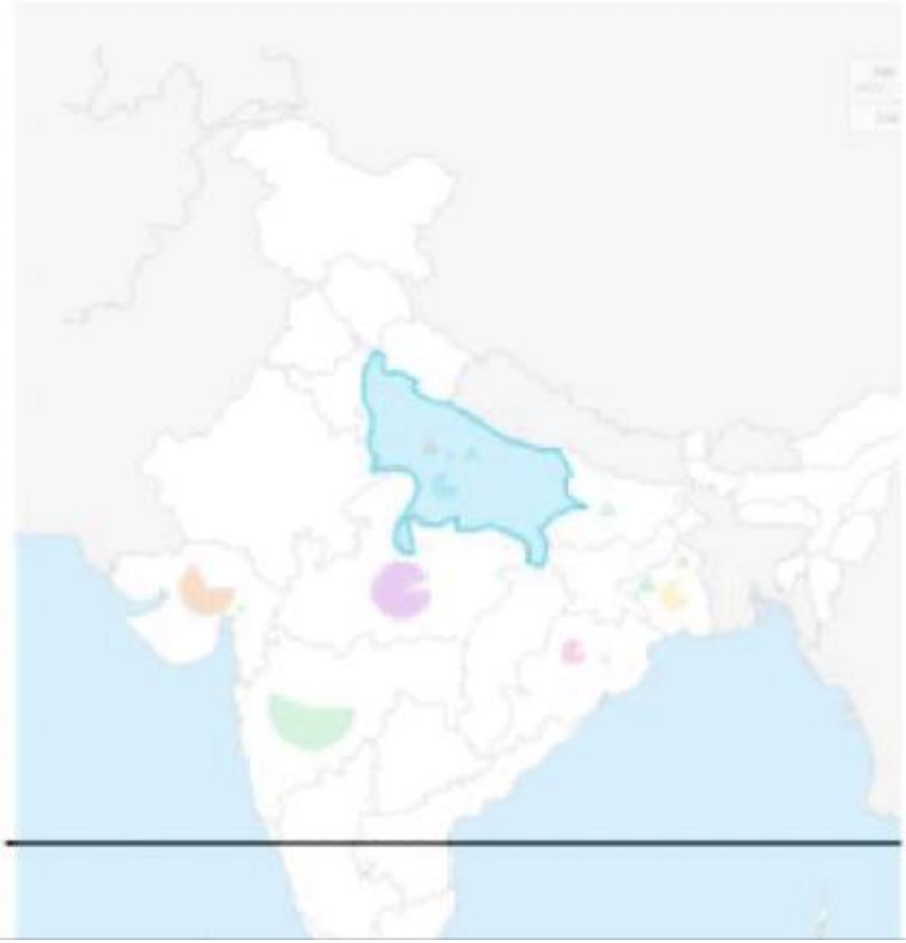


Ideation

Idea 1

Idea 2

Idea 3

Idea 4

Idea 5

Evaluation

Starting from lockdowns

Ideation

Idea 1

Idea 2

Idea 3

Idea 4

Idea 5

Evaluation

Starting from lockdowns

Ideation

Idea 1

Idea 2

Idea 3

Idea 4

Idea 5

Evaluation

Starting from lockdowns

LOCKDOWN 1

Ideation

Starting from lockdowns

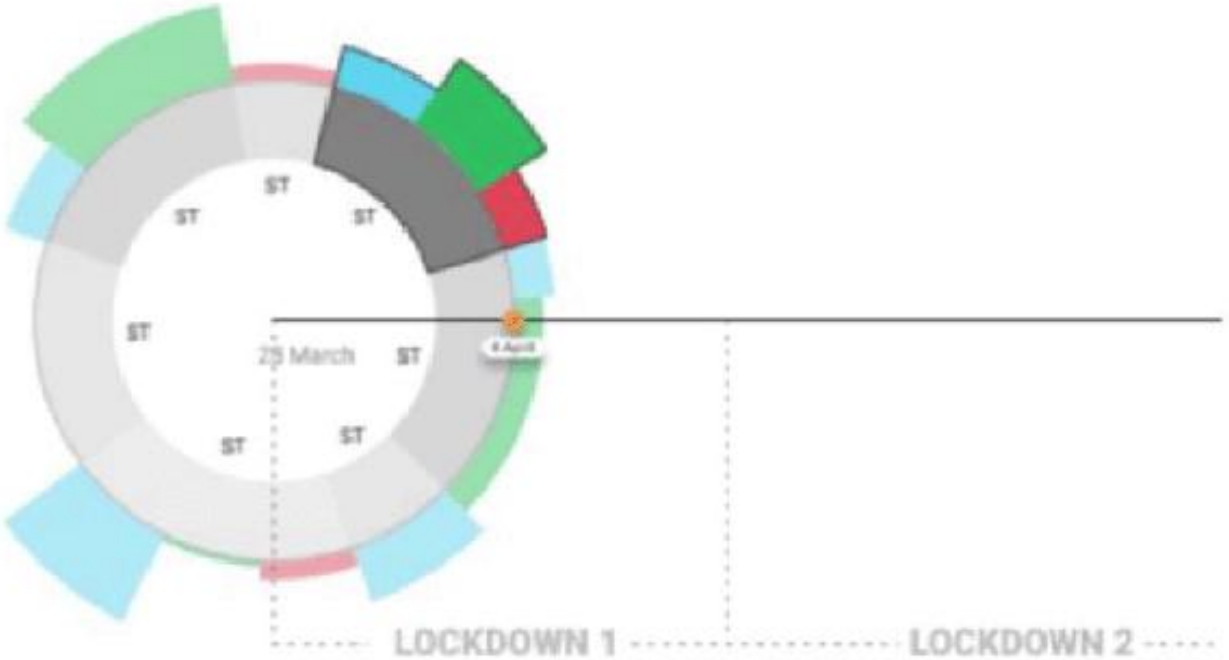
Idea 1

Idea 2

Idea 3

Idea 4

Idea 5



Ideation

Idea 1

Idea 2

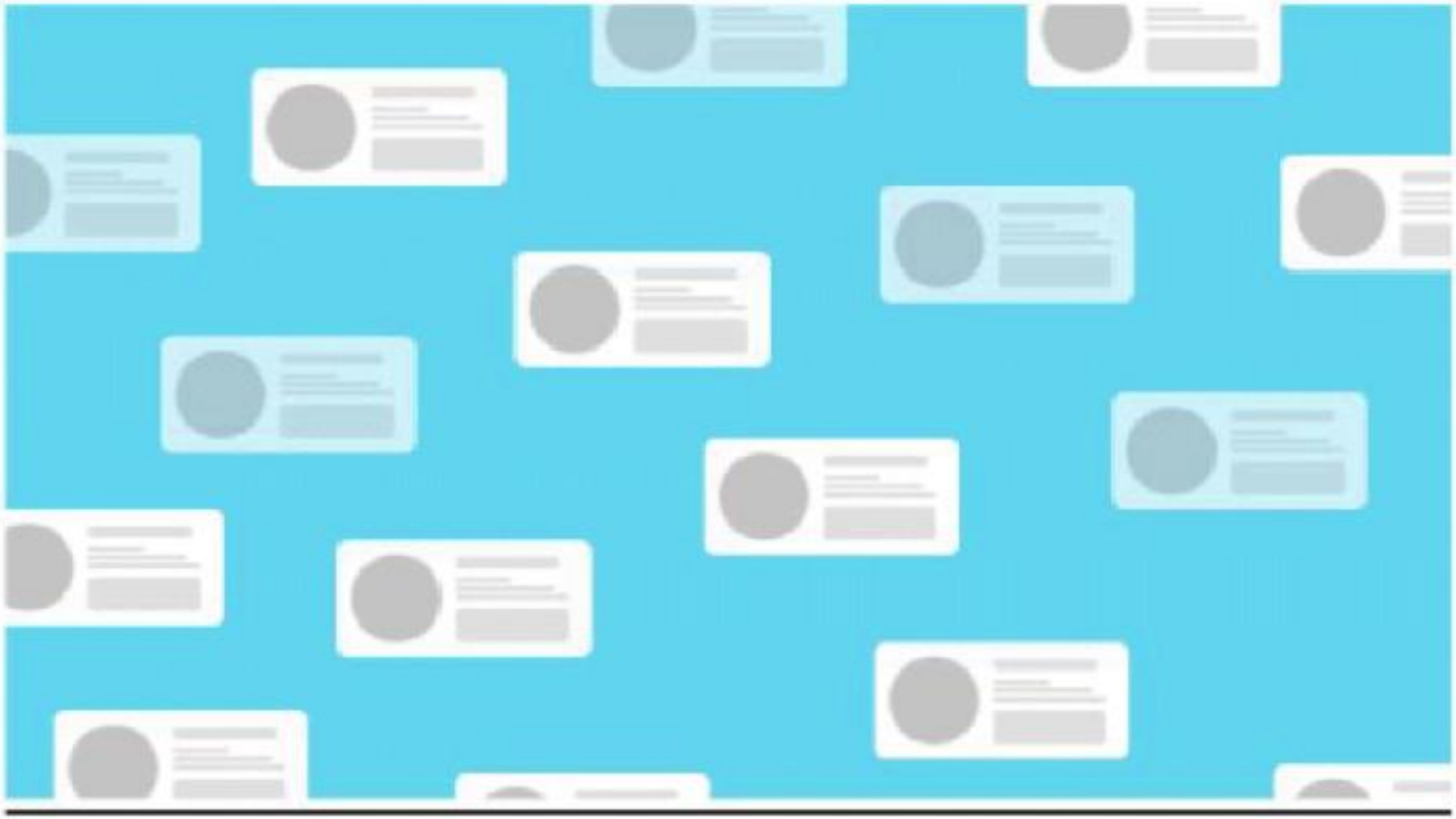
Idea 3

Idea 4

Idea 5

Evaluation

Wall of Stories



Ideation

Wall of Stories

Idea 1

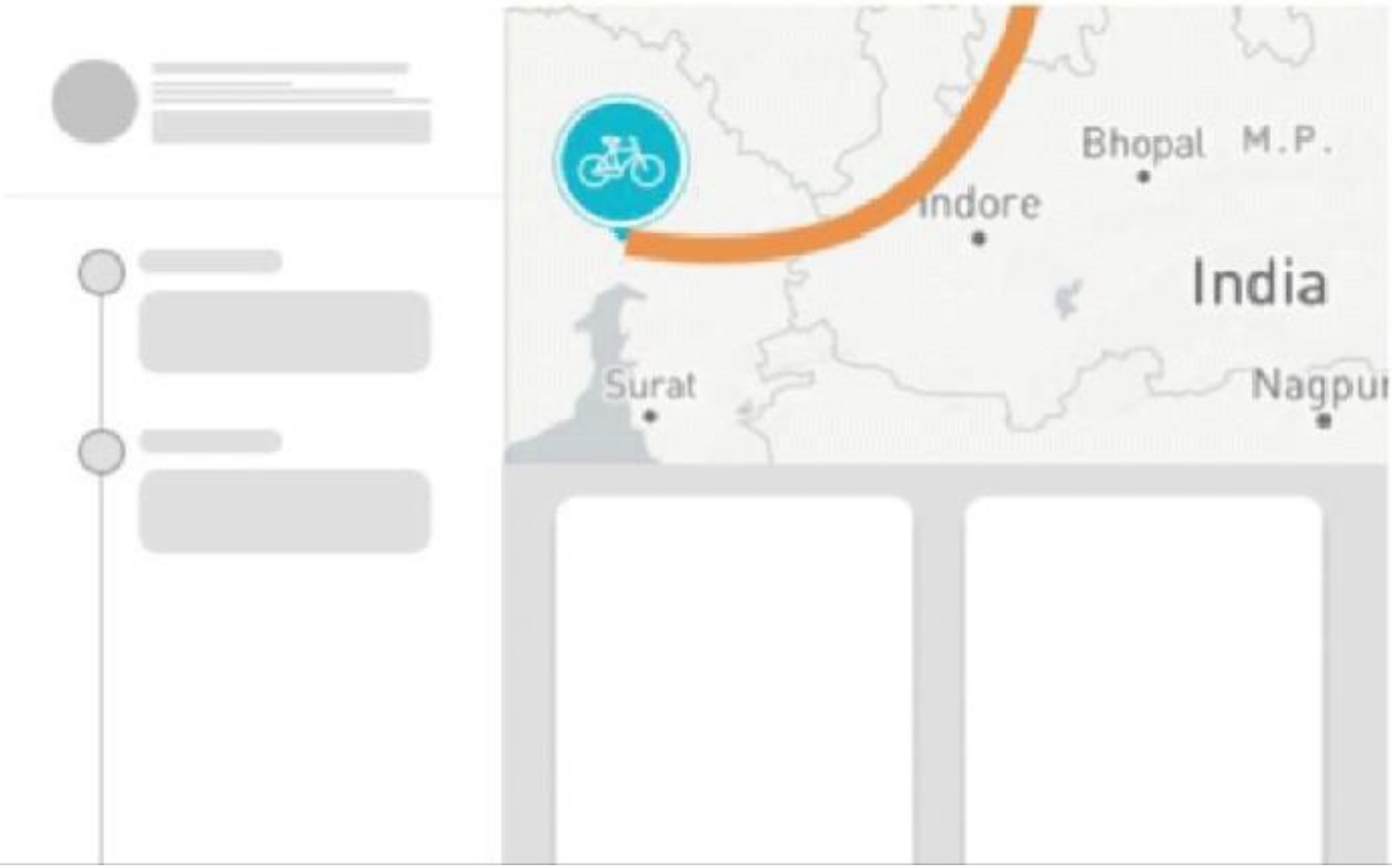
Idea 2

Idea 3

Idea 4

Idea 5

Evaluation



Ideation

Walking Migrant

Idea 1

Idea 2

Idea 3

Idea 4

Idea 5

Evaluation

Ideation

Reach Home

Idea 1

Idea 2

Idea 3

Idea 4

Idea 5

Evaluation

Idea 1
Idea 2
Idea 3
Idea 4
Idea 5
Evaluation

Comparison

Idea 4

Walking Migrant

Encoding

No connect with the overall timeline

Focus

Lacks Binding features

Idea 5

Reach Home

Encoding

Too many unknown parameters

Fatigue, stress, hunger are not encoded.

Focus

Lack of motivation

Ideation

Idea 1

Idea 2

Idea 3

Idea 4

Idea 5

Evaluation

Comparison

Idea 1

Plotting on Map

Encoding

State border status missing, other pieces of information do not gel together.

Missing data on other events

Focus

Too much unnecessary information

Idea 2

Sunburst on Donut

Encoding

Missing data on related events

Unavailability of data for such granularity

Idea 3

Story cards

Encoding

Missing Hardships faced by the migrants

Interactivity

Too much information at an instant

Final Design

Final Flow • All visualizations

Flow

Introduction

Small narrative to set up the context

Timeline Visualization

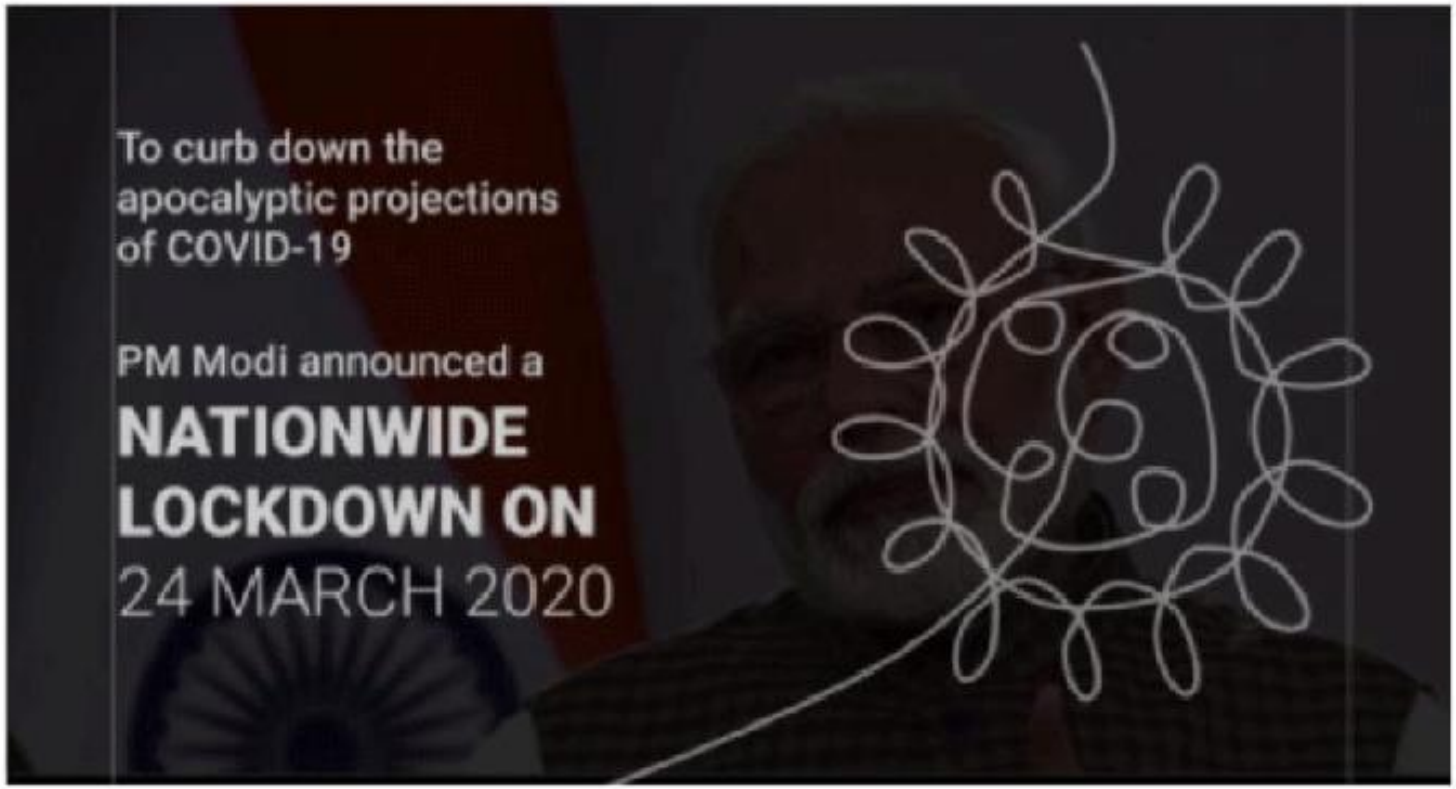
Main viz on home page with all info plotted

Stories

Triggered from timeline viz, elaborate narration of migrant story

Introduction

Introduction
Home Page
Story



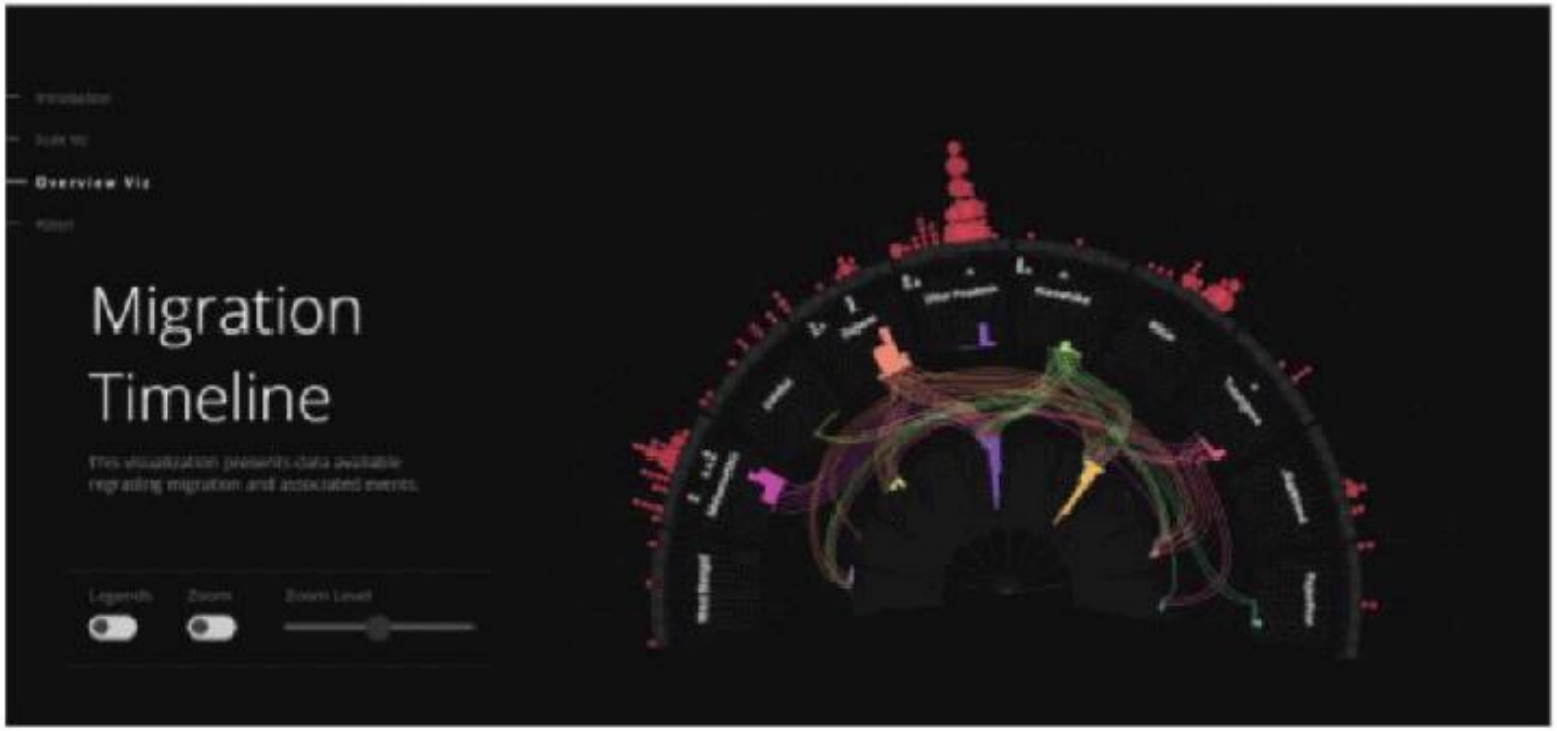
Final Design

Introduction

Home Page

Story

Home Page



Final Design

Story

Introduction

Home Page

Story

Rajan would drive from 5am to 11am. He would then rest during the day. At 6pm the family would be back on road till 11pm.

Evaluation Plan

Evaluation Plan

2 Types of Tests

Test 1: With live users
Objective: To understand and improve the experience

Test 2: Qualitative feedback using google forms
Objective: To elicit user understanding of the topic after website usage.