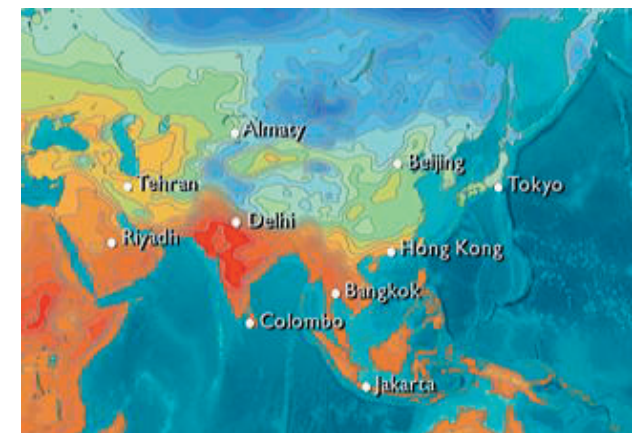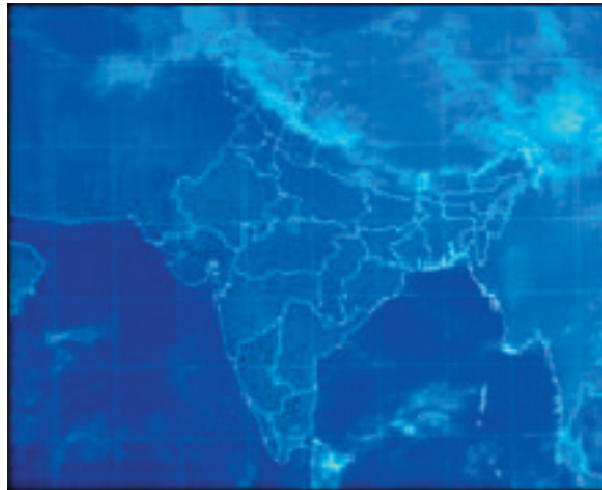# Study of Information Graphics
in Television in India

Visual Communication

Special Project

Study of Information Graphics in Television in India

Submitted in the partial fulfilment of the
requirements for the Master of Design degree in
Visual Communication

by
Shalaka Dighe
02625013

Guide: Prof. G. V. Sreekumar

IDC
IIT Bombay

March, 2004

approval sheet

Visual Communication

Special Project entitled

Study of Information Graphics in Television in India
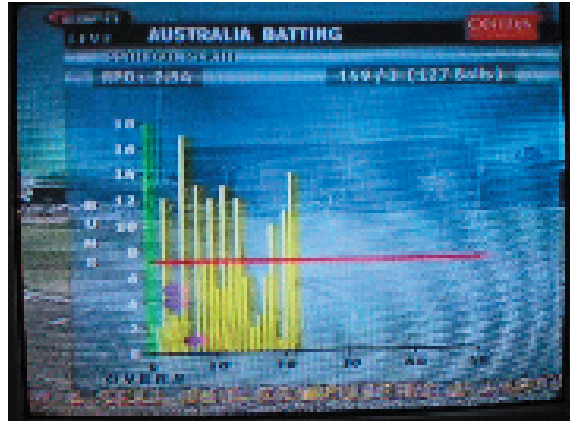
By

Shalaka Dighe
02625013

is approved in the partial fulfilment of the requirements
for the Master of Design degree in Visual Communication,
March 2004.

Guide _____

Chairman _____

Internal examiner _____

contents

acknowledgements

I started off my project with a very wide perspective. I planned to study information graphics in the Indian print media, especially in Marathi. Sadly, I found that they rarely existed, and whatever were found were either terribly done or outsourced from English media. My guide **Prof. G. V. Sreekumar** suggested me to look upon a more dynamic media in the television and gave me a completely different insight into pursuing this study. Visiting television studios didn„t help-some either deleted the graphics because of lack of space, or some wouldn„t give me their graphics because of policies. Prof. Sreekumar, as always, simplified matters for me by suggesting that I could simply record on television.

I am also grateful to my mother, **Mrs. S. N. Karkhanis,** Asst. News Editor, All India Radio, Mumbai, for inspiration and great help in getting an access to the inside of the channel offices. **Mr. Vijay Bhingarde** of the Graphics department at Sahyadri was of great assistance too.

Also, my **neighbours** have been a great sport in answering my questionnaire. I must thank all my classmates, and especially juniors for letting me finally lay hands on the video camera. Last but not the least, I cannot forget the support of my family- **Aai, Mayank and Kaustubh** who have been tolerant about my watching news channels perpetually and not making noises while I recorded.

project guideline

The idea behind the project was of studying the information graphics as they appear on the television channels. They mainly consist of **business and stock updates, weather reports, and cricket graphics.** Occasionally, some graphical or animated **reconstruction of events** is also shown, to explain the happenings so that the viewers understand them better than verbal description.

The guidelines given to me were to get an **overview** of these under two categories- **weather reports and cricket graphics**. These were more

predictable and related to a broader category of people than the business updates. Also, animated or graphical reconstruction of events is not yet a common practice in many channels and would have narrowed the scope of my study.

The study then was to continue with an in-depth analysis of one of these categories- the more ‡Indian· weather reports. This study would encompass a **comparative analysis**, study of various **devices used**, the **understandability of content**, and my **feedback as a designer.**

information graphics

Information graphics are **visual representation of any information, statistical data, or reconstruction of an event**. The graphical display of information is among the most obvious and important forms of visual communications. The organization of realistic data into a field that is **recognizable at a glance** yet can be studied and probed over a period of time can prove to be a useful tool that offers tremendous value to both audience and designer.

Graphics can describe information in a better way by **visual mapping**. Visual aid to information can **compress huge information** into smaller and more comprehensible **information rich capsules.**
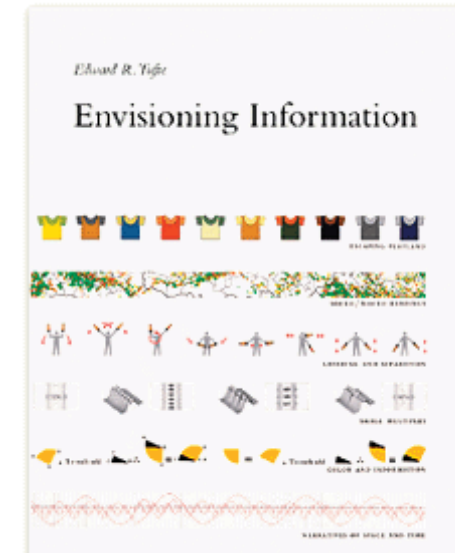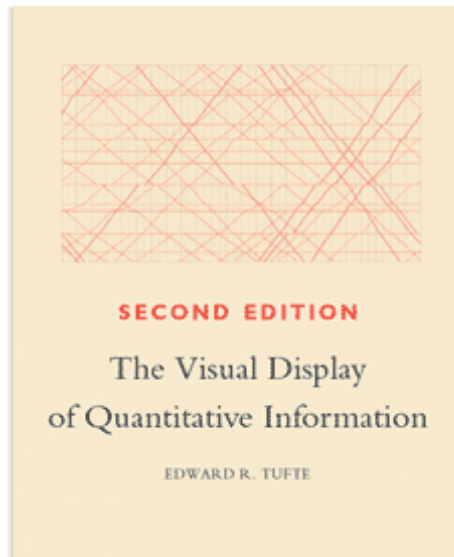

We are aware of the presence and importance of graphic representations throughout the history of the man. **Diagrams, maps, charts** and many kind of **symbols** take part in our daily life. All visual media has explored various aspects and advantages of Infographics, and the Television media is no exception. The **dynamism** of TV media offers **more scope** to the designer and broadens the horizons of possibilities. Graphical representations benefit from the **fourth dimension of 'time'**, and can help create better

the visual language

Information graphics are made for transmitting some information, which is interpreted by others. So, it is reasonable to think about the existence of a language behind those graphics. Graphic representations can be regarded as **expressions of visual languages**. Like any language, a particular visual language involves a particular **visual vocabulary** and a particular **visual grammar**. Certain common notational habits, such as the drawing of lines between entities that have some kind of relationship, the arrangement of entities on a time line, or the use of different colours in order to indicate categories of some kind, are shared by many of these visual languages. We can categorize this grammar into three basic aspects:
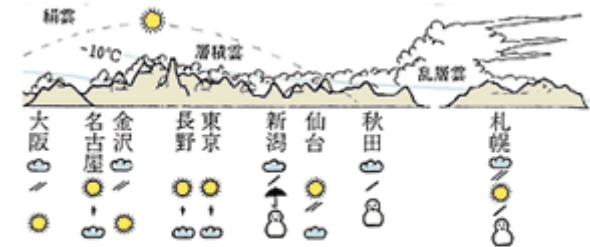
Components are the basic parts or ‡building blocks· that the visual representation is composed of, such as words, shapes, images, etc. They are like the basic characters or alphabets of the visual language.

Visual Attributes are the visually perceivable characteristics of components, such as colour, shape, size, etc. They have semiotic connotations and are like words in the language.

Composition Principles are the systematic ways in which several components are combined with each other into a meaningful composition. Careful use of this syntax of the visual language can create the most relevant information graphics.
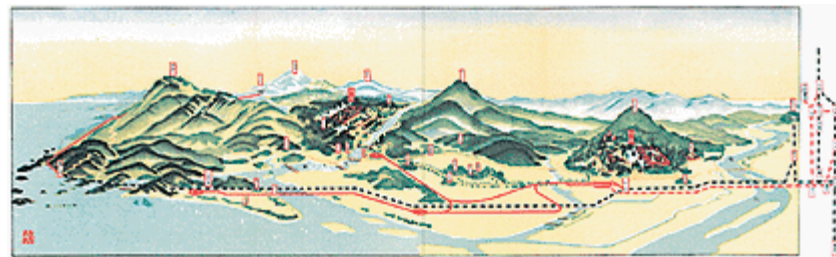
the television media

The television media in India shows infographics primarily in news channels and can be broadly categorized into the following:

1 **Stock market reviews**

2 **Cricket graphics**

3 **Weather reports**

4 **Reconstruction of an event**

The **stock market reviews** are **targeted at a select segment** of the society, and make more sense to the people involved in the profession.

Reconstructing events by means of animation is still a **rare phenomenon** in the Indian television industry.

Cricket graphics are, although understandable by most Indians, are **not** really **an indian design**. Studying them would not have fulfilled the purpose of this study.

the choice of study
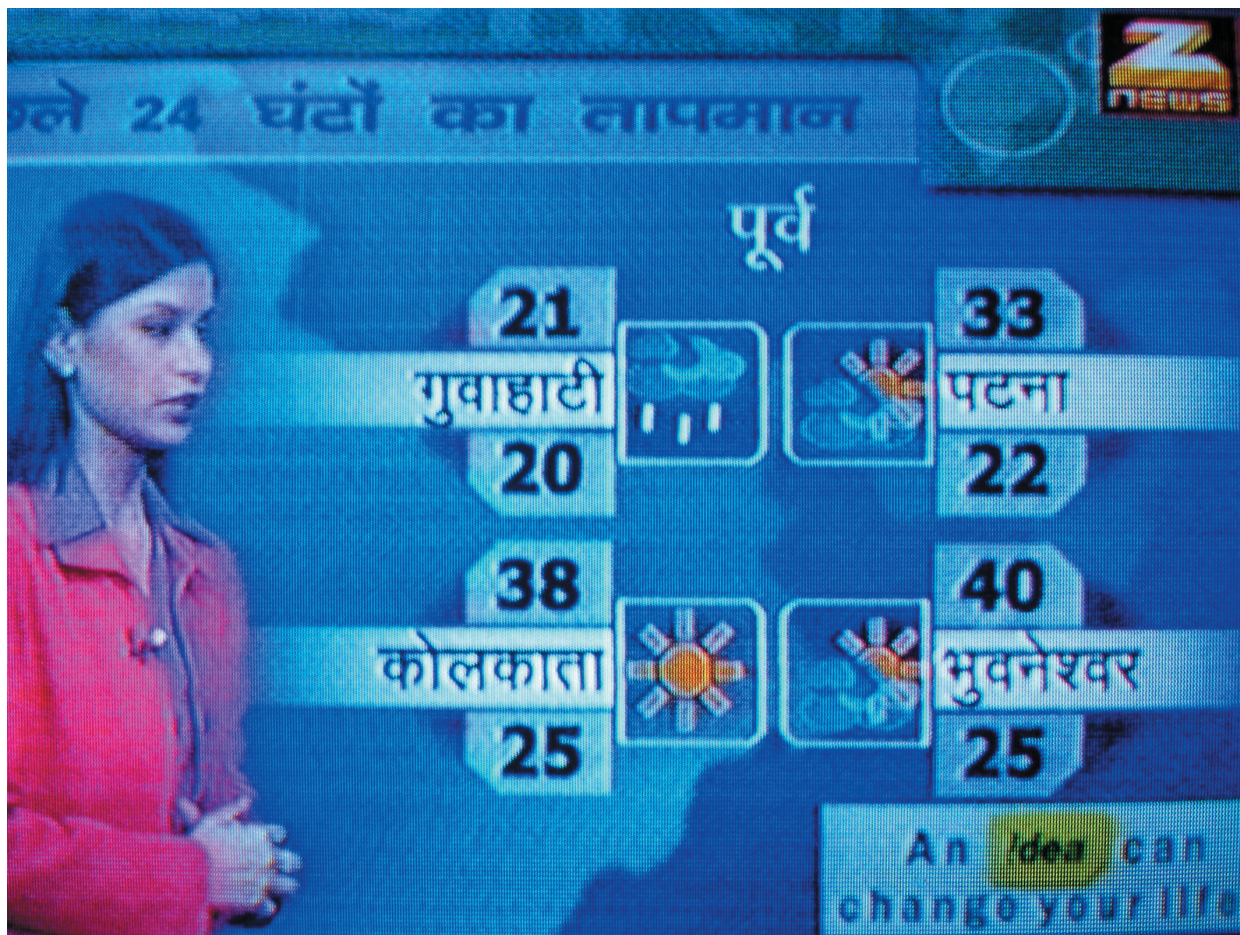
For the purpose of this study, I decided to concentrate on the **weather reports** because of the following reasons:

1 Many Indian news channels create weather reports in-house. This gives me a perspective into the amount of **permeation and use of infographics in a media** in a country where use of infographics is still in its infancy.

2 There is a considerable **variety** in the way all channels present the weather information and it would be interesting exercise to compare them.

3 There is a **consistency in the occurrence** of weather reports- they are broadcast at particular times every day. This would facilitate the study.

weather reports

Weather reports in Indian television mainly consist of the following information:

1 Maximum and minimum temperatures

2 Cloudy or sunny weather

3 Humidity

4 Satellite imagery

5 Broad forecast

6 Pollution report
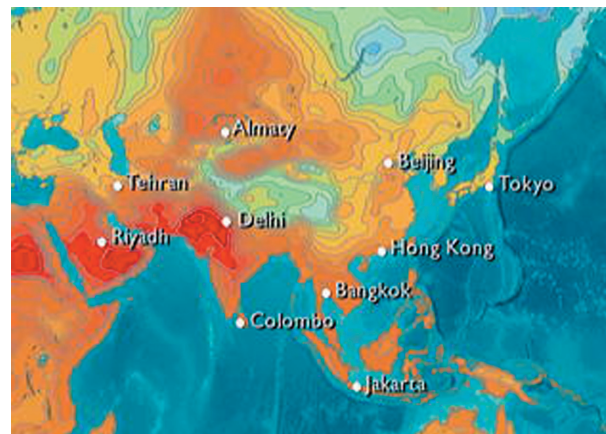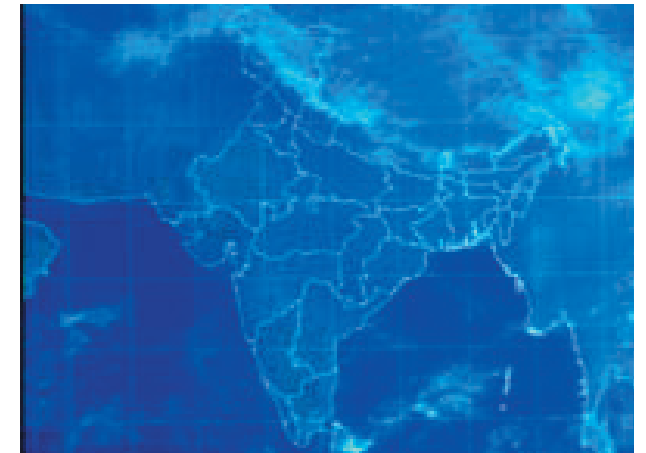
the elements

The **components** used in these reports are

1 Maps (2D or 3D, to locate cities,)

2 Icons (animated or still, to represent climate - sunny, cloudy etc.)

3 Bar charts (animated or still, to compare temperatures, pollution levels etc.)

4 Text matter (animated or still)
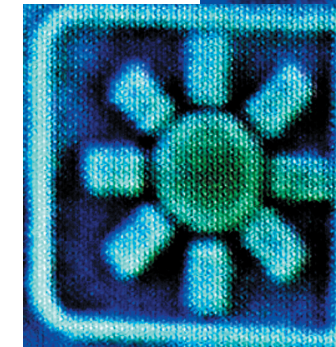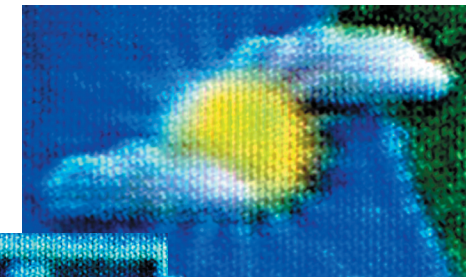
the challenge

With the advent of innumerable news channels in India, it was tough to choose a few for my study. I decided to go for **Hindi channels** and pick those which represent **variety**. The channels I opted for are-

Aaj Tak

NDTV India/ NDTV 24X7

Zee News

I decided to study some benchmark channels so that I can compare my study with them

BBC world

Sahyadri (Marathi)

The study provided many hindrances since their broadcast timings are highly **unpredictable**. They no longer appear at the end of every news programme as was traditionally done. After watching news channels for a few days, I could chart some **pattern** in their **broadcast timings** and was finally able to record some.

Also, weather report seem to be treated by the news presenter like they are an **essential unpleasantness** and that no one is interested in them. They are **rarely announced** in advance, and before you know it, can adjust your recording, half the content is already over!

areas of study

Having collected the recordings of the weather reports for each channel under consideration, I studied the following aspects of the graphics for each channel:

1. Study of various devices

- colours
- icons
- typography
- maps- 2D and 3D
- 3D simulation

- visual representation of natural elements
    a. clouds
    b. sun
    c. rain
- locations in India

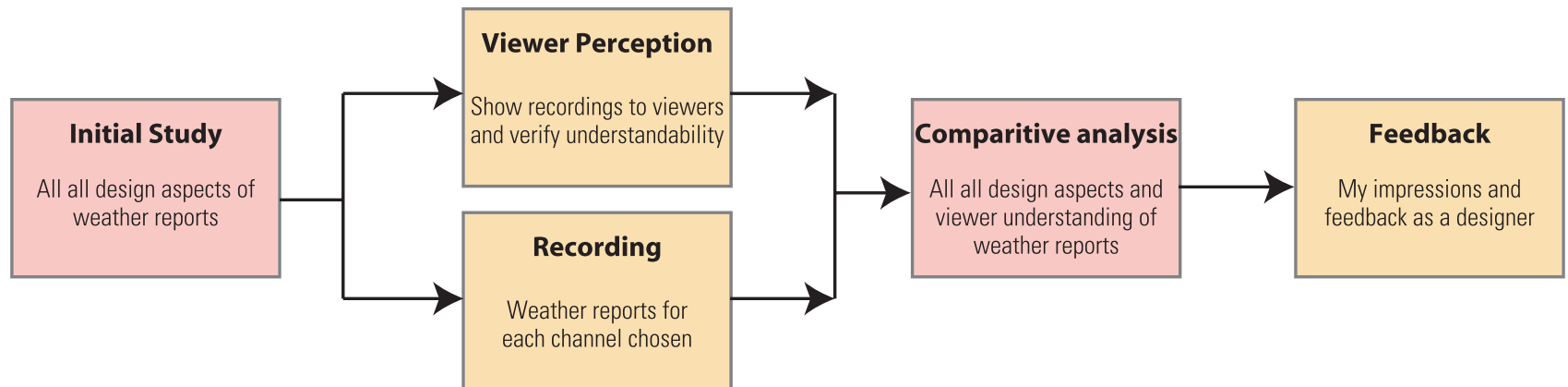- information on max./min. temperature

2. Comparative analysis

3. Viewer understanding.

4. My feedback.

methodology

The methodology to be followed was to **initially study** all the aspects of the weather report individually on each channel, **record** them and show to common people and get an insight into their understanding. The selected reports were to be **compared** with each other, to the government news channels and to an international channel. The final step would be to include my own **feedback** as a designer.

Viewer Perception

Show recordings to viewers and verify understandability

Initial Study

All all design aspects of weather reports

Recording

Weather reports for each channel chosen

Comparitive analysis

All all design aspects and viewer understanding of weather reports

Feedback

My impressions and feedback as a designer

viewer questionaire

I chose **two people** (non designers) to show these recordings and **answer a few questions** afterwards. This helped me in understanding how communicative these information graphics are.

The questions:

1 (Given a map of India). Can you approximately **locate these cities** in it? Jaipur, Bhopal, Thiruvananthapuram, Agartala.

2 Can you tell **which cities are cloudy** today?

3 Which city in India was the **hottest** today?

4 Which **symbol** was used to indicate rain?

5 Can you identify **low pressure** zone?

Based on the above answers, **eight points** will be given. Their preferences on the **overall appeal** carry two points. Thus the rating will be given on a **ten point scale** to the weather reports of each channel.

ndtv india/ ndtv 24x7

(Both channels belong to the same network and the weather reports for both are translations)

Structure of report- Wind and pressure zones, zone wise presentation of weather data (N, E, S, W, C), narration of forecast, pollution report

Map- 2D

Simulation- Globe turns at intro, stops at India, wind flow simulated, low/ high pressure zones simulated (isobars), zooming in to different zones.

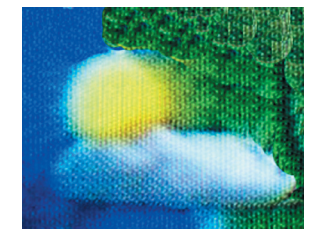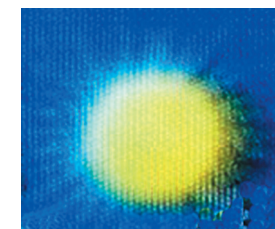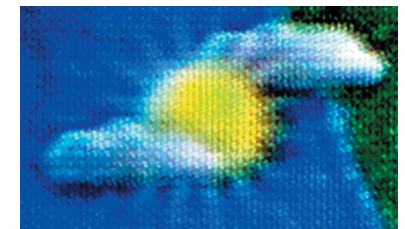**Colour Scheme**- Map as per terrain- green, brown, blue, white.

Contrast- Low contrast in colours within the map, high contrast with fonts for readability

Typography- Devnagri font for names of cities (not in NDTV24X7), Fonts white, smaller size for city names, slightly bigger for max./ min. temperatures.

Icons - Bright yellow sun for hot weather, grey cloud for cloudy weather, animated icon for rain falling from clouds.

Duration- 40 seconds
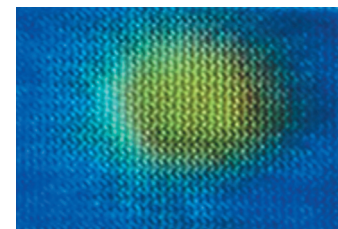
Degree of understanding- 7

aaj tak

Structure of report- Zone wise presentation of weather data (N, E, S, W, C), narration of forecast, chart of temperatures, humidity and weather for major cities.

Map- 3D, showing mountains, plains, desert, sea etc.

Colour Scheme- Map as per terrain- green, brown, blue, white for Himalayas.

Simulation- Map simulated as if doing aerial survey, camera gives floating effect, zooming in to different zones. Placards for cities, and temperatures, cities not pin-pointed, but approx. location shown. Placards enlarge when camera approaches location or when narrator describes, then fades into background. Camera finally zooms out to entire country showing top view as in 2D map.

Contrast- Low contrast in colours within the map, high contrast with fonts for readability

Typography- Devnagri font for names of cities Bold roman numerals in red box, Fonts white with drop shadow, smaller size for city names, slightly bigger for max./ min. temperatures.

Icons - Bright yellow sun for hot weather, grey cloud for cloudy weather, rain from clouds.

Duration- 2 mins 15 secs & 42 secs brief report.
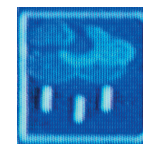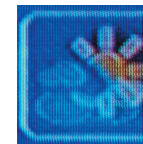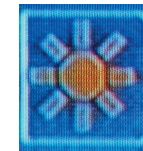
Degree of understanding- 7

zee news

Structure of report- Zone wise presentation of weather data (N, E, S, W,) Temp of 4 metros, narration of forecast, chart of temperatures, South east Asian temperatures.

Map- 2D, Shades of blue, only used as background.

Simulation- No simulation

Colour Scheme- Map- blue and dark blue in the background, white boxes of temp. in the foreground.

Contrast- Low contrast in colours within the map, high contrast with fonts for readability

Typography- Huge boxes of text in Devnagri font for names of cities, Bold roman numerals in white box, data of four cities covers the entire map at a time. City names not mapped with the location of the city.

Icons - Bright yellow sun for hot weather, grey cloud for cloudy weather, lightening for stormy, rain from clouds. Innovative abstraction.

Duration- 50 secs.

Degree of understanding- 6

bbc world

Structure of report- Continent wise presentation of world weather- temp, humidity, wind directions, pressure zones, chart of temperatures.

Map- 2D, Satellite images mapped.

Simulation- Simulation of winds, their direction with arrows, cloud movement, globe turning- camera panning and zooming on continents.

Colour Scheme- Map- green, brown, blue, white. B/w satellite images mapped at times.
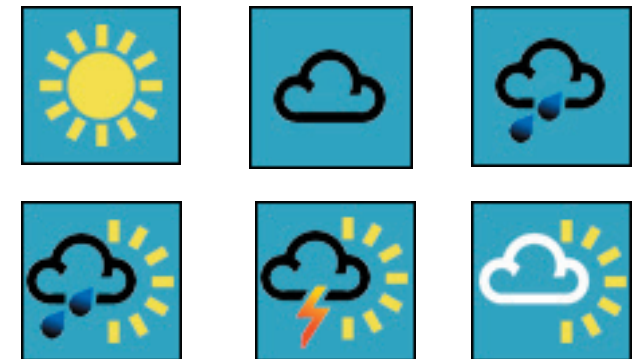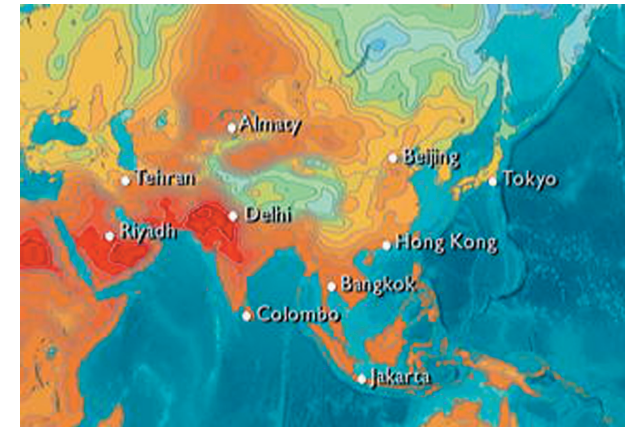
Contrast- High contrast in colours within the map, lower contrast with icons.

Typography- Small fonts for city names, temp encircled in shades of yellow for hot areas and of blue for cold areas. Only max. or min. temp. mentioned wherever applicable.

Icons - Myriad icons and their combinations used- yellow sunny weather, white cloud for cloudy weather, black clouds for rainy clouds.

Duration- 2 mins

sahyadri

DOORDARSHAN NEWS

Structure of report- Narration of report or forecast, table of temperature of 5 major cities in Maharashtra shown with map in background, and then of Panaji with map of Goa in background

Map- 2D

Simulation- No Simulation

Colour Scheme- Map- yellow for state, blue for sea, and grey for neighbouring state.

Contrast- High contrast in colours within the map and those of the text.

Typography- Devnagri display font (high contrast) for city names in yellow, no consistency between bulletins- typeface used varies, max./min. temp in Roman numerals in white. Temp indicated to a fraction of one decimal place.

Icons - No icons

Duration- 40 secs

comparitive analysis

Design Aspects	NDTV India	Aaj tak	Zee News	BBC World	Sahyadri
Structure of report	Wind and pressure zones, zonewise presentation of weather data (N, E, S, W, C), narration of forecast, pollution report	Zonewise presentation of weather data (N, E, S, W, C), narration of forecast, chart of temperatures, humidity and weather for major cities.	Zonewise presentation of weather data (N, E, S, W,) Temp of 4 metros, narration of forecast, chart of temperatures, South east Asian temperatures.	Continent wise presentation of world weather- temp,humidity, wind directions, pressure zones, chart of temperatures.	Narration of report or forecast, table of temperature of 5 major cities in Maharashtra of Panaji with
Map	2D	3D, showing mountains, plains, desert, sea etc.	2D, Shades of blue, only used as background.	2D, Satellite images mapped.	2D
Simulation	Globe turns at intro, stops at India, wind flow simulated, low/ high pressure zones simulated (isobars), zooming in to different zones.	Map simulated as if doing arial survey, camera gives floating effect, zooming in to different zones. Placards for cities, and temperatures, cities not pin-pointed, but approx location shown. Placards enlarge when camera approaches location or when narrator describes, then fades into background. Camera finally zooms out to entire country showing top view as in 2D map	No simulation	Simulation of winds, their direction with arrows, cloud movement, globe turning-camera panning and zooming on continents.	No Simulation
Colour Scheme	Map as per terrain- green, brown, blue, white.	Map as per terrain- green, brown, blue, white for himalayas.	Map- blue and dark blue in the background, white boxes of temp. in the foreground	Map- green, brown, blue, white. B/w satellite images mapped at times.	Map- yellow for state, blue for sea, and grey for neighbouring state.

Design Aspects	NDTV India	Aaj tak	Zee News	BBC World	Sahyadri
Contrast	Low contrast in colours within the map, high contrast with fonts for readability	Low contrast in colours within the map, high contrast with fonts for readability	Low contrast in colours within the map, high contrast with fonts for readability	High contrast in colours within the map, lower contrast with icons.	High contrast in colours within the map and those of the text.
Typovv vvgraphy	Devnagri font for names of cities (not in NDTV24X7), Fonts white, smaller size for city names, slightly bigger for max./ min. temeratures.	Devnagri font for names of cities Bold roman numerals in red box, Fonts white with drop shadow, smaller size for city names, silghtly bigger for max./ min. temeratures.	Huge boxes of text in Devnagri font for names of cities, Bold roman numerals in white box, data of four cities covers the entire map at a time. City names not mapped with the location of the city.	Small fonts for city names, temp encircled in shades of yellow for hot areas and of blue for colder areas. Only max. or min. temp. mentioned wherever applicable.	Devnagari display font (high contrast) for city names in yellow, no consistancy between bulletins- typeface used vaires, max./ min. temp in Roman numerals in white. Temp indicated to a fraction of one decimal place.
Icons	Bright yellow sun for hot weather, grey cloud for cloudy weather, animated icon for rain falling from clouds.	Bright yellow sun for hot weather, grey cloud for cloudy weather, rain from clouds.	Bright yellow sun for hot weather, grey cloud for cloudy weather, lightening for stormy, rain from clouds. Innovative abstraction.	Myriad icons and their combinations used- yellow sunny weather, white cloud for cloudy weather, black clouds for rainy clouds.	No icons
Duration	40 seconds	2 mins 15 secs & 42 secs brief report.	50 secs.	2 mins	40 secs
Degree of understanding	7	7	6		

my feedback

In the three channels that I studied, I could find certain points of interest as a designer.

1 3D maps are trendy, but apt usage seemed missing. Vital information such as location mapping is compromised because of this.

2 Usage of icons is very limited. Introducing a broader variety of icons can affect the understandability to a great extent.

3 Maps seem to lack clarity. In order to make it appear more realistic birds eye view, political boundaries have been done away with. These boundaries are main guideline to identify locations in any map.

4 The only clue for hottest or coolest zones are the figures. These could be done away with and some kind of colour or contour maps could be introduced to identify hottest/ coolest areas.

5 Overall channels seem to have taken great effort in the direction of infographics and have come a long way as against traditional weather reports.

references

The Language of Graphics, Yuri Englehart

http://www.iua.upf.es/activitats/semirec/LanguageofGraphics/

Envisioning Information, Visual Display of Quantitative Information
Edward Tufte

http://www.ndtv.com

http://www.bbc.co.uk

http://www.aajtak.com

http://www.zeenews.com

http://www.ddmumbai.com