

# A book about you

At the end of our course “Bildval och bildstrategier” (i.e choice of images and image strategies) a student group of text designers in their final year, are asked to create a

book about themselves. At an earlier stage of the course, they get a number of lectures on subjects related to images/choosing images.

Being almost fully trained information designers, they are used to solve various problems related to communication, but when confronted with more artistic, and less rigid type of assignment, other kinds of difficulties arise. At first, it is psychologically and pedagogically interesting for them to figure out **what they want to tell about themselves, and how to tell it**. This is not a common subject in our university level courses. At this stage, their work method does not differ a lot from other information design related projects. As text designers, they are used to writing, but lack (the same level of) competence regarding images. Still, **some of them experiment rather freely and successfully** manage to create images/illustrations.

When the students evaluate the course, they tend to point out that it was difficult to figure out what was right or wrong. This is one of the main objectives of the course, i.e to make the students understand that they must, **in creative tasks, trust their own capability** and to make design decisions on their own.

During the recent years, some of our students have successfully used this book/booklet as part of their C.V, later on when applying for jobs.

WHAT  
HOW  
EXPERIMENT  
Creative tasks  
+ CAPABILITY  
= RESULT

#### 1. Art history!

**Aim:** make students aware of different techniques.

**Contents:** lectures and visit to an art museum.

#### 2. Words and images!

**Aim:** learn how words and images can work together – or not.

**Content:** guest lecturer Robert Nyberg, satirical cartoonist + assignments.

#### 3. Communicate with an illustrator!

**Aim:** learn how to get the image you want.

**Contents:** guest lecturer, Lisa Öst, editor at one of sweden’s main publishers of teaching media + assignments.

#### 4. Design

**Aim:** learn how to format your book!

**Contents:** a workshop with Hans Henningsson, expert on typography and form.

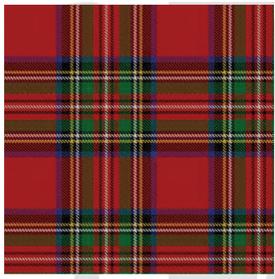
#### 5. The book

**Aim:** learn more about paper, covers, book design.

**Contents:** lecture and assignment.



MÄLARDALEN UNIVERSITY  
SWEDEN



pattern that belongs  
pattern of a time  
pattern association



*"maximum meaning, minimum means"*  
**pattern performing information**  
Abram Games

culture

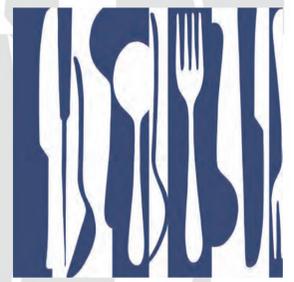
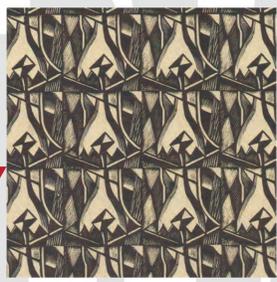
history

people

heritage

geography

manufacture



relationships

referencing

narrative

colour

brand

motifs

Kate Farley



# Preference is not Performance

## Objective versus subjective measures of Berlin schematic map usability

Maxwell J. Roberts\*, Elizabeth J. Newton\*, Hannah Gray\*, Jennifer Lesnik\*, & Maria Canals\*

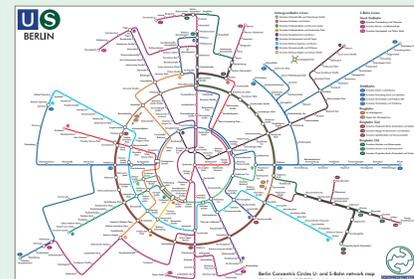
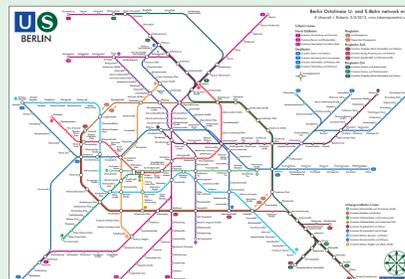
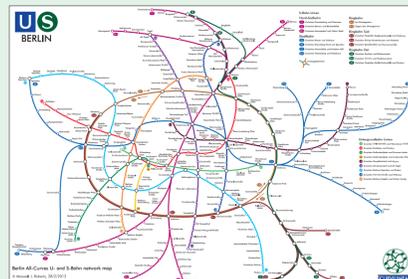
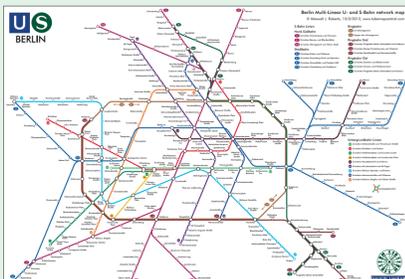
\*Department of Psychology, University of Essex, UK \*Department of Psychology, London South Bank University, UK

### Introduction

- Schematic rail maps are intended to simplify the complexities of reality, giving a clear overview of the trajectories of individual lines, their relatedness and their connectivity.
- Roberts *et al.* (2013) compared the official Paris Metro map (traditional octolinear) with a novel curvilinear design. The curvilinear design was 50% faster for journey planning, but preferred by only 50% of people.
- In general, objective measures and subjective evaluations are almost always uncorrelated: people can prefer designs that are hard to use and reject designs that are easy to use.
- People have expectations, prejudices, opinions and aesthetic preferences concerning design which bias their usability evaluations (Roberts, 2014).
- Two usability studies are reported here which compare objective versus subjective measures for four unofficial Berlin maps matched for size and design priorities – the simplest possible line trajectories.
- Octolinear:** traditional Henry Beck style; how people expect a good map to be formatted, but these design rules do not suit all cities well.  
**Multilinear:** multiple angles permit the straightest line trajectories, but at the expense of the overall coherence of the design.  
**Curvilinear:** the harsh disruptive corners of linear designs are smoothed away to form gentle curves that afford effortless flow.  
**Concentric:** the line trajectories have poor simplicity, but this is the most coherent design of all. It generates massive interest on the internet.

### Method

- Experiment 1: 72 people tested with multilinear, curvilinear, and octolinear designs, all people attempted to plan journeys using all three maps.
- Experiment 2: 40 people tested with concentric and octolinear designs, all people attempted to plan journeys using both.
- Journey planning task:
  - People attempted to plan a series of journeys for every map. Each journey was between two highlighted stations.
  - Six complex journeys planned per map, two interchanges required to complete each journey, or to avoid a roundabout journey.
  - Two measures of performance: mean time to plan each journey, and mean estimated time required to undertake each journey – based on a simple station and interchange count.
- Rating task (1):
  - A series of statements about various aspects of the designs were, rated on a 5-point scale (*strongly agree* to *strongly disagree*).
  - Total of ratings gave aggregate questionnaire scores, higher aggregates indicate a more favorable rating for each map.
- Rating task (2):
  - Each map was directly rated for perceived usability with three options (*easy to use*, *neutral*, *hard to use*).
  - Each map was directly rated for perceived attractiveness with three options (*attractive*, *neutral*, *unattractive*).



### Results

	Multilinear	Curvilinear	Octolinear	Concentric
<b>OBJECTIVE MEASURES</b>				
Mean journey planning time (seconds, high scores = poor performance)				
Experiment 1	31.2 (12.0)	31.5 (15.2)	30.5 (14.6)	
Experiment 2			25.2 (7.6)	30.9 (9.6)
Estimated journey duration (minutes, high scores = poor performance)				
Experiment 1	64.5 (6.7)	62.9 (5.7)	64.5 (6.7)	
Experiment 2			62.5 (6.6)	62.4 (5.9)
<b>SUBJECTIVE RATINGS</b>				
Mean aggregate questionnaire rating (range 11 to 55; high scores = more favourable)				
Experiment 1	34.4 (9.3)	39.0 (9.7)	41.1 (8.6)	
Experiment 2			44.4 (7.2)	33.7 (10.4)
Mean direct usability rating (range 0 to 100; high scores = more favourable)				
Experiment 1	54.2 (38.2)	66.7 (40.2)	75.0 (30.3)	
Experiment 2			85.9 (25.5)	41.0 (39.5)
Mean direct attractiveness rating (range 0 to 100; high scores = more favourable)				
Experiment 1	36.1 (34.8)	73.6 (40.0)	66.7 (31.0)	
Experiment 2			65.4 (28.5)	64.1 (42.8)

- Objective measures:
  - No differences in estimated duration of journeys planned.
  - Multilinear, curvilinear, octolinear designs equal journey planning times, concentric map far slower than octolinear.
- Subjective measures:
  - Multilinear and concentric maps always received the worst usability ratings. The curvilinear map was rated more highly, the octolinear map was always rated the most usable design.
  - Curvilinear received a high attractiveness rating, concentric and octolinear equal, multilinear the least attractive by far.

### Conclusions

- There is a clear dissociation between the objective measures and the subjective ratings of usability.
- The low ratings of the multilinear map are unjustified, the low ratings of the concentric map are completely justified:
  - People evaluate maps on the basis of salient features in relation to their expectations about good design.
  - Sometimes these salient features are by coincidence related to factors that determine usability, sometimes not.
- Aesthetic appreciation seems to be related to usability judgement, but is also independent of this:
  - The curvilinear map is rated as more attractive than usable, the octolinear map is rated as more usable than attractive.
  - The concentric map is rated as much more attractive than the multilinear, but seems to receive the lowest usability ratings.
- Both types of evaluation methodology are necessary:
  - Objective measures to ensure that usable designs are selected.
  - Subjective measures to ensure that acceptable designs are selected.

### References

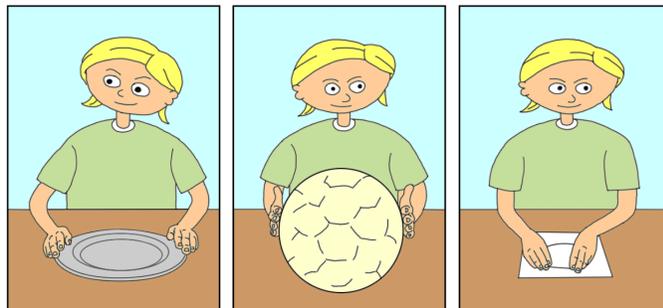
- Roberts, M.J. (2014). What's your theory of effective schematic map design? Schematic Mapping Workshop 2014, University of Essex, April.
- Roberts, M.J., Newton, E.J., Lagattolla, F.D., Hughes, S., & Hasler, M.C. (2013). Objective versus subjective measures of Paris Metro map usability: Investigating traditional octolinear versus all-curves schematic maps. *International Journal of Human Computer Studies*, 71, 363-386.

# WORKING WITH TACTILE IMAGES ON A PLATFORM FOR DIFFERENT CHANNELS

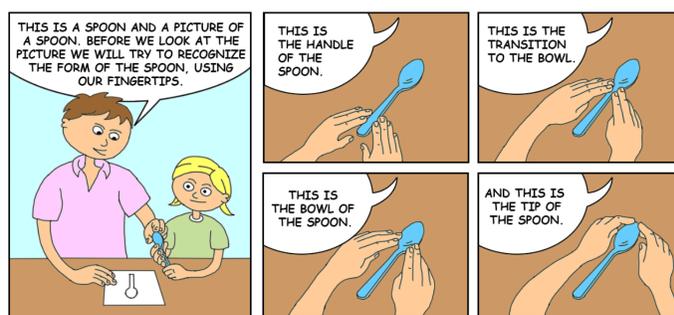
The main purpose of the platform in question is to facilitate and improve the possibility to support children with blindness or visual impairment in their learning to read and understand tactile images. With a functional strategy for reading tactile images, maps and graphics it's easier for these children to participate in school work on

conditions similar to those of sighted children. Below, you find some parts, mostly pictures, from Tactile images. Essential for the pictures has been that they should not be gender specific and that they should show, very clearly, the importance of using both hands when reading tactile images.

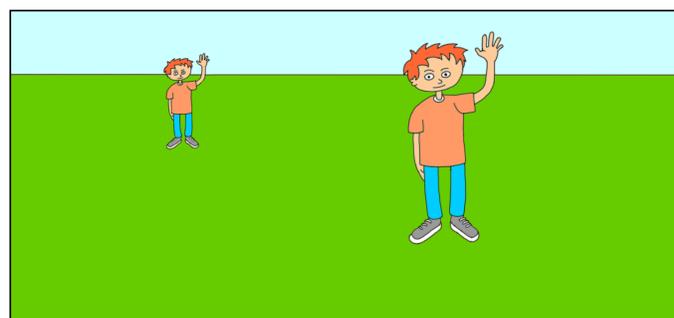
This picture illustrates the difficulty of showing different shapes and forms. In a tactile image both the plate and the ball are represented by a circle.



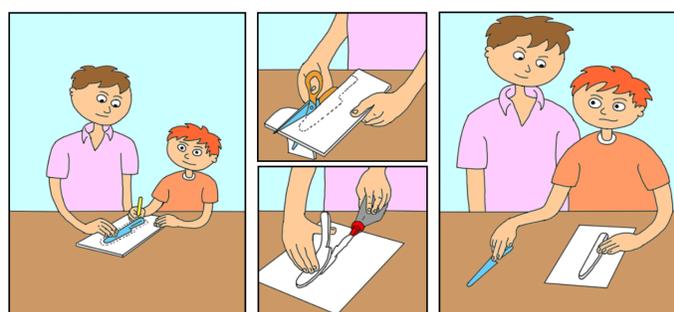
This shows the importance of using both hands.



This shows the difficulty of illustrating the proportions of size and distance.



This shows how to make your own tactile image.



**Text** Lena Stenberg lecturer Information Design - Text **Illustrations** Peter Johansson, lecturer Information Design - Informative illustration  
**Project manager MDH** Yvonne Eriksson, Professor Information Design **Project manager MTM** Björn Westling, Research and Development



# Visualising Value Chains

The aim of this project is to develop language-free graphic outputs to define methodologies and tools to support workers in fashion and textile supply chains who are working in the context of socially focused micro enterprises in the developing world.



An identified problem in the field of social and economic empowerment of workers and textile producers in the developing world is the challenge posed by linguistic complexity in regional hubs in training for capacity enhancement and trading growth. This project addresses this issue, through the development of a set of visual tools for use by trainers in field situations (typically with small, localised groups of producers) aiming to engage with global textile supply chains. Training programmes are often internationally developed and a key advantage of visual communication tools used in workshops to engage participants whose literacy skills are limited, or who do not share a common language is the opportunity to create income through international trade networks.

This poster introduces the design of this prototype tool kit in the form of a game with double-sided cards that allow participants to build their own value chain from raw material through to the final fashion garment. The original idea for the project is based around a collaboration pooling the skills, interests and professional networks of a visual communicator and a sustainable fashion/business expert, using the principles of transformation drawn from Isotype.

Dr Sue Perks and Mo Tomaney University for the Creative Arts

The aim of this project is to develop language-free graphic outputs to define

methodologies and tools to support workers in fashion and textile supply chains who are working in the context of socially focused micro enterprises in the developing world.

## The Value Chain Game

Work in progress showing the development of a set of visual tools for use by trainers in field situations



**1. Retail & sales tax**  
*Reverse imagery to show*  
Money  
Personal shopping  
Government cut



**2. Components created in-house to add value**  
*Reverse imagery to show*  
Buttons  
Decoration  
Bead  
Agricultural product  
Other  
Packing into salable units  
Plastic bags



**3. Social margin**  
(i.e. with NGOs the part added to the profit margin that goes into a social funding pot or profit sharing scheme)  
*Reverse imagery to show*  
Monetary %



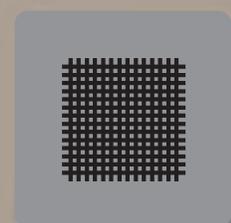
**4. Bought-in components**  
(Items with their own supply chain - so if the trainer wants to create a full transparency they can include this)  
*Reverse imagery to show*  
Zip  
Button  
Decoration  
Beads



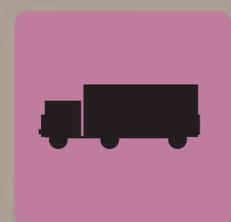
**5. Manufacturing costs**  
*Reverse imagery to show*  
Sewing  
Finishing  
Washing  
Dying (post manufacture)  
Sewing  
Finishing  
Washing



**6. Embellishment of cloth**  
(could be subcontracted or produced in house)  
*Reverse imagery to show*  
Print  
Embroidery  
Beading  
Cut work  
Engineered pieces  
Patchwork



**7. Cloth**  
(either bought in or woven in house from yarn or raw materials)  
*Reverse imagery to show*  
Woven  
Hand loom woven  
Factory knitted (e.g. cotton jersey)  
Hand knit



**8. Shipping & packing & export/import taxes**  
*Reverse imagery to show*  
Boats  
Planes  
Trucks  
Containers  
Tax/money  
Hang tags and bar codes  
Packing into salable units  
Plastic bags



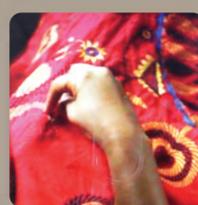
**9. Where the raw fibres come from**  
*Reverse imagery to show*  
Factory  
Animal  
Silk farm  
Cotton  
Linen  
Bamboo



**10. Yarn**  
*Reverse imagery to show*  
Hand spinning  
Factory spin  
Home worker



**11. Management/agency/in country logistics/training**  
(i.e. the work that the NGO does, or, in a commercial setting, the business overheads for the factory)  
*Reverse imagery to show*  
Trucks  
Workshops  
Office

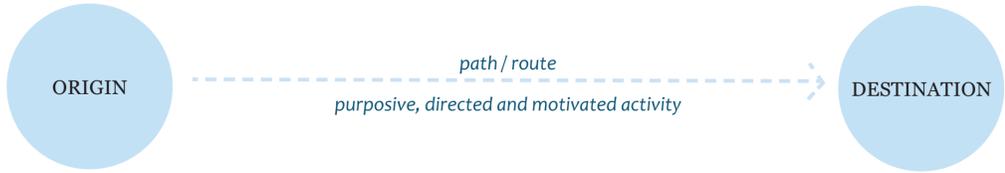


The visuals (*right*) show preliminary designs for a game consisting of a set of colour-coded cards with symbols to the front and sample colour imagery on the reverse (*left*). Their aim is to enable textile workers (with trainers in a workshop situation) to understand more about the process and operations which go into the creation of a garment from raw materials to finished retail-ready fashion. The symbols used represent eleven identified stages of the value chain - each will have up to twenty variants showing specific processes or stages, to encourage workshop participants to 'build' the value chain and understand the worth of their skills within the process. We are currently considering whether the treatment of the imagery should be photographic or illustrative - which will depend on feedback from project partners.

# WayFinding: Information Design for Public Spaces

Pooja Vasu | M. Des Student, Graphic Design, National Institute of Design, India

Wayfinding has always been a crucial part while navigating through a certain given space. It not only helps us to get familiarized with the immediate environment but also directs us how to navigate through it. A successful design solution should alter the action of the target audience in the desired way. Wayfinding is one such branch of design which has an immediate reaction to the given information. It is a direct effect of motor coordination. Information given at any point is expected to be precise.



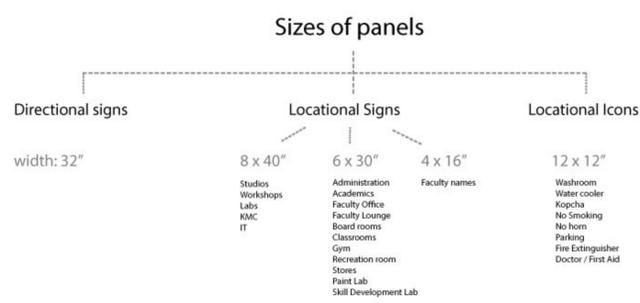
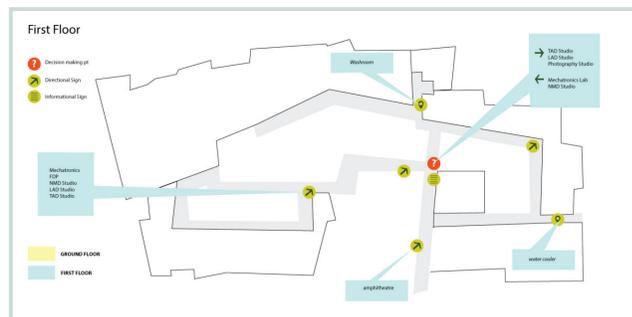
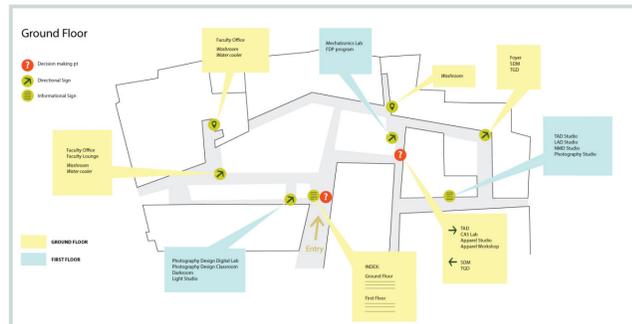
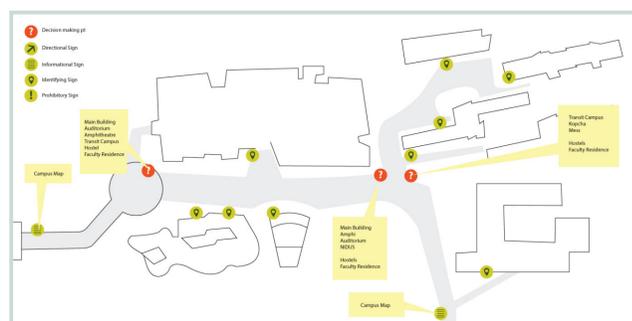
## PG Campus Signage System

Academic project done during the 2nd year Masters at NID.

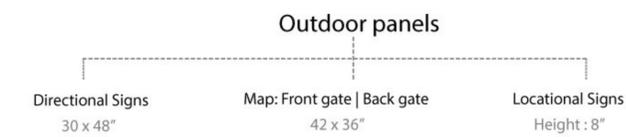
Post Graduate Campus is situated in the city of Gandhinagar, in Gujarat, spread over 11,362 sq mts. The campus being relatively new, the structure might still be subjected to many changes according to the institute requirement. The main area focused was on directional signages in the campus.

Main Building  
Amphi  
Auditorium  
NIDUS  
Hostels  
Faculty Residence

## METHODOLOGY



Based on the study of the campus layout and analysis done with respect to information dissemination at various touchpoints, the following is the proposed Information Architecture

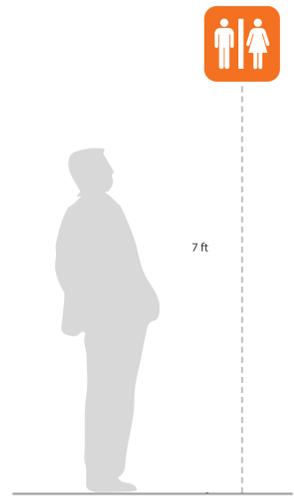


## ICONS PROPOSED DESIGNS



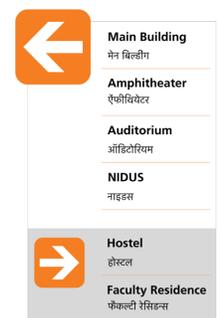
As a part of this Signage system, various icons have been designed.

2 types of Icons were created:  
NAVIGATIONAL | LOCATIONAL



## SIGNAGES

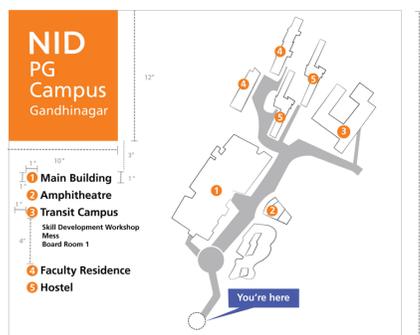
Directional Signages to guide you through the campus



OUTDOOR



INDOOR



CAMPUS MAP

Maps are the most commonly used representational form which indicate the absolute and relative location of places, features and spatial relations. This map is to help the visitors to orient themselves in the immediate campus environment

# 162 YEARS ON, WHY DO 7 MILLION COMMUTE WITHOUT A RAIL MAP?

Prof. Mandar Rane, IDC, IIT Bombay  
Hriday Gami, DoD, IIT Guwahati  
Jaikishan Patel, IDC, IIT Bombay

**PEOPLE ARGUE WITH ME SAYING, "IN MUMBAI WE RELY ON ASKING AROUND FOR INFORMATION RATHER THAN REFERRING TO A MAP." INDEED IT'S TRUE, BECAUSE WE NEVER GAVE THEM ONE.**

Did nobody design a map in all these years? The first design school in India, National Institute of Design, (NID) was established in 1961 followed by Industrial Design Centre (IDC) in 1969. Since then, these schools and others have built a tremendous repository of relevant designs for the public domain such as maps and signage. Unfortunately, very few of these designs have been implemented, almost none in Mumbai. This is primarily because of two reasons.

Firstly, in a crowded city like Mumbai, people take information for granted, often sourcing it from fellow commuters, which has now become their second-nature. The lack of awareness over the need and function of public information systems has never been questioned and seemed justified. The very same people when exposed to well designed systems (when they visit first world countries) recognize them as indispensable. Secondly, efforts to convince the bureaucratic hierarchy to implement worthy design projects that solve a latent need have been futile, primarily because of the way in which the government and its bodies are designed as bodies of approval, rather than initiative. We sparked a new controversy by designing a map.

The Mumbai suburban rail network flagged off its first train in 1853. It now runs 2,342 trains daily that carry about 7.5 Million commuters on an average. It is a heavily coded system that continually expands and densifies. We share here, how we tackled the core issues while designing the map, followed by our strategies for its implementation.



**PEOPLE SAID THAT THE MAP APPEARS TOO COMPLEX TO THE FIRST-TIME USER. WE ANSWERED...**

Don Norman, in his book *Living with Complexity*, mentions about Al Gore's office desk, which seems chaotic and messy to a visitor but organised and ordered for Al. Once the desk's underlying structure of organisation is revealed, its complexity fades away. If we draw an analogy to the mess on Al Gore's desk towards the arrangement of elements in a map; the map for the first time user would obviously appear complex. But once the user understands how information is organised in the map, its complexity will fade. "Complexity can be tamed through three things: intelligent organization, excellent modularization and structure as well as training of the (user)."- Donald Norman

The dictionary can appear to be very complex if the users don't know the use of alphabetical order and the method for searching for a word. Once revealed, this complexity dissolves. Therefore, people need to be taught the method of reading the map using the index and the grid.

**IT'S HIGH TIME WE MADE A SYMBOL FOR COLOR BLIND-FRIENDLY PRODUCTS AND ENVIRONMENTS...**



We propose a universal symbol for identifying colorblind friendly products, such as equipment, mobile applications and websites, as well as environments, such as airports, train stations, libraries and factories. This will encourage professionals and design schools across the world to design inclusive public information systems and help in establishing a standard for color universal design.

The MRM is an attempt at a colorblind friendly map but is yet to become a complete solution. The color palette for the map is carefully chosen to aid the colorblind by avoiding the use of commonly misunderstood colors.

**CAN A NUMBERED CHEQUERED GRID WORK BETTER THAN THE CONVENTIONAL ALPHANUMERIC GRID? WE TESTED...**



In the map, the conventional alphanumeric grid is replaced with a numbered box grid because of two reasons. Firstly, map reading is not so common in India and commuters are not accustomed to using a two axis X-Y grid. Secondly, a numbered grid functions well when the number of divisions is small, in this case only 22. During testing we found that people are able to understand the numbers-only grid and use it better than the alphanumeric based on their past experience.

**FROM PAPER TO PLATFORM. OUR STRATEGIES FOR MAKING THE MAP REACH THE PEOPLE.**

**1 MAKE THE MAP PART OF INFRASTRUCTURE AND ITS INSTALLATION A POLICY.** We can find a precedence of this at Metro stations in India where maps and signage are installed at designated places during the planning stage. Our problem was adding maps to existing stations, some of which are more than a century old and are all different in layout. Making installation of maps mandatory is possible only through policy level decisions made by the authorities and inked in the rule book.

**2 INJECT THE MAP INTO THE SYSTEM BY INCREASING ENCOUNTERS. MAKE PEOPLE FEEL THE NEED FOR ONE.** Generate and disseminate material that conveys the thought behind the absence, need and design of the map through as many communication channels as possible. As part of this strategy, the MRM Thought Books were made to sensitize

the railway authorities towards the lack of basic public information systems. They are also a means to raise awareness amongst design students and professionals regarding the importance of pushing sensible design towards implementation.

For young students we installed maps and charts at schools, colleges and a science centre such that the map becomes a point of reference and they learn to read it through repeated encounters. We used Facebook as an effective medium to generate debate among design students at each iteration and parallelly developed products such as MRM notebooks and MRM charts to leak the map into the public imagination. The most effective medium to give people access to the map has been the free mobile application available for Android and iOS.

Download at: [www.mrmapp.in](http://www.mrmapp.in)

# My Mumbai My Local



MRM | Mumbai Rail Map

Three steps to find your station...

eg. to find the station Dadar in the map:



## LOCAL TRAIN

A-Z	Station Names	BOX No.	Line & Station Code	A-Z	Station Names	BOX No.	Line & Station Code
A	Airoli	11	WR	M	Mumbai Central	17	WR
A	Ambernath	12	WR	M	Mahim	13	WR
A	Ambernath	8	WR	M	Maldive	9	WR
A	Andheri	7	WR	M	Mankhurd	14	WR
A	Andheri	9	WR	M	Mansarovar	15	WR
A	Apta	16	WR	M	Marine Lines	17	WR
A	Asangaon	4	WR	M	Masjid	18	WR
A	Atgaon	4	WR	M	Matheran	12	WR
B	Badlapur	12	WR	M	Matunga	14	WR
B	Badlapur	13	WR	M	Matunga	13	WR
B	Belapur CBD	15	WR	M	Mira Rd.	5	WR
B	Bhandup	10	WR	M	Miraj	10	WR
B	Bhayandar	5	WR	M	Mumbai Central	17	WR
B	Bhivpuri Rd.	12	WR	M	Mumbai Central	17	WR
B	Bhivpuri Rd.	9	WR	M	Mumbai Central	17	WR
B	Boisar	1	WR	M	Mumbai Central	17	WR
B	Borivali	9	WR	M	Mumbai Central	17	WR
B	Byculla	18	WR	M	Mumbai Central	17	WR
C	Charni Rd.	17	WR	M	Mumbai Central	17	WR
C	Chembur	14	WR	M	Mumbai Central	17	WR
C	Chinchpokli	18	WR	M	Mumbai Central	17	WR
C	Chunabhatti	14	WR	M	Mumbai Central	17	WR
C	Churchgate	21	WR	M	Mumbai Central	17	WR
C	Cotton Green	18	WR	M	Mumbai Central	17	WR
C	CST VT	18	WR	M	Mumbai Central	17	WR
C	CST VT	18	WR	M	Mumbai Central	17	WR
C	Currey Rd.	18	WR	M	Mumbai Central	17	WR
D	Dadar	13	WR	M	Mumbai Central	17	WR
D	Dahanu Rd.	1	WR	M	Mumbai Central	17	WR
D	Dahisar	5	WR	M	Mumbai Central	17	WR
D	Datvali	11	WR	M	Mumbai Central	17	WR
D	Divia	11	WR	M	Mumbai Central	17	WR
D	Dockyard Rd.	18	WR	M	Mumbai Central	17	WR
D	Dolavi	16	WR	M	Mumbai Central	17	WR
D	Dombivli	7	WR	M	Mumbai Central	17	WR
E	Elphinstone Rd.	13	WR	M	Mumbai Central	17	WR
G	Ghansoli	11	WR	M	Mumbai Central	17	WR
G	Ghatkopar	14	WR	M	Mumbai Central	17	WR
G	Goregaon	9	WR	M	Mumbai Central	17	WR
G	Govandi	14	WR	M	Mumbai Central	17	WR
G	Grant Rd.	17	WR	M	Mumbai Central	17	WR
G	GTB Nagar	14	WR	M	Mumbai Central	17	WR
H	Hamrapur	20	WR	M	Mumbai Central	17	WR
J	Jogeshwari	9	WR	M	Mumbai Central	17	WR
J	Juchandra	6	WR	M	Mumbai Central	17	WR
J	Juinagar	15	WR	M	Mumbai Central	17	WR
K	Kalva	11	WR	M	Mumbai Central	17	WR
K	Kalyan	7	WR	M	Mumbai Central	17	WR
K	Kamboli	11	WR	M	Mumbai Central	17	WR
K	Kandivli	9	WR	M	Mumbai Central	17	WR
K	Kanjur Marg	10	WR	M	Mumbai Central	17	WR
K	Karjat	12	WR	M	Mumbai Central	17	WR
K	Kasara	4	WR	M	Mumbai Central	17	WR
K	Kelavi	16	WR	M	Mumbai Central	17	WR
K	Kelve Rd.	1	WR	M	Mumbai Central	17	WR
K	Khadavali	7	WR	M	Mumbai Central	17	WR
K	Khandeshwar	16	WR	M	Mumbai Central	17	WR
K	Khar Rd.	13	WR	M	Mumbai Central	17	WR
K	Khairi	6	WR	M	Mumbai Central	17	WR
K	Kharghar	15	WR	M	Mumbai Central	17	WR
K	Khopoli	16	WR	M	Mumbai Central	17	WR
K	Kopar	7	WR	M	Mumbai Central	17	WR
K	Kopar Khairane	11	WR	M	Mumbai Central	17	WR
K	Kurla	14	WR	M	Mumbai Central	17	WR
L	Lower Parel	17	WR	M	Mumbai Central	17	WR
L	Lowjee	16	WR	M	Mumbai Central	17	WR
M	Mahalaxmi	17	WR	M	Mumbai Central	17	WR
M	Mahim	13	WR	M	Mumbai Central	17	WR
M	Maldive	9	WR	M	Mumbai Central	17	WR
M	Mankhurd	14	WR	M	Mumbai Central	17	WR
M	Mansarovar	15	WR	M	Mumbai Central	17	WR
M	Marine Lines	17	WR	M	Mumbai Central	17	WR
M	Masjid	18	WR	M	Mumbai Central	17	WR
M	Matheran	12	WR	M	Mumbai Central	17	WR
M	Matunga	14	WR	M	Mumbai Central	17	WR
M	Matunga	13	WR	M	Mumbai Central	17	WR
M	Mira Rd.	5	WR	M	Mumbai Central	17	WR
M	Miraj	10	WR	M	Mumbai Central	17	WR
M	Mulund	10	WR	M	Mumbai Central	17	WR
M	Versova	9	WR	M	Mumbai Central	17	WR
M	Mumbai Central	17	WR	M	Mumbai Central	17	WR

### MONO RAIL

A-Z	Station Names	BOX No.
B	Bhakti Park	18
B	Bharat Petroleum	14
B	Chembur	14
B	Fertilizer Township	14
B	Mysore Colony	14
B	VNP & RC Marg Jn.	14
B	Wadala Depot	14

### METRO RAIL

A-Z	Station Names	BOX No.
A	Airport Road	10
A	Andheri	9
A	Asalpha Road	10
A	Azad Nagar	9
A	Chakala	9
A	D.N. Nagar	9
A	Ghatkopar	10
A	Jagruni Nagar	10
A	Mand Naka	10
A	Saki Naka	10
A	Versova	10
A	WEH	9



### RAILWAY LINES

- Western Line (WR)**  
Churchgate-Dahanu Rd.
- Central Line (CR)**  
CST-Kasara / Khopoli
- Harbour Line (HR)**  
CST-Panvel / Andheri
- Trans Harbour Line**  
Thane-Panvel / Vashi
- Mono Rail (line 1)**
- Mumbai Metro (line 1)**
- Indian Railways**

### KEY TO ICONS

- Terminal + Interchange
- Terminal Station
- Terminal Station Codes
- Time

- Ladies Class
- First Class
- Physically Challenged

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