Temporary Printed Visuals in the IITB Campus

Sanket Gonte & Shivani Nayak
IDC School of Design, IIT Bombay.

 Supervisor
Dr. Jayesh S. Pillai
IDC School of Design, IIT Bombay.

Abstract

The printed visuals like posters, banners, billboards are a frequently used medium for communicating messages and advertisements. The visuals are printed on various materials like PVC-coated polyester sheets called flex, cloths, acrylics, card boards, metal sheets, papers, etc. Even in this era of social media and internet, the printed visuals are considered to be a powerful medium to reach maximum number of people. IIT Bombay, one of the prestigious technical institutes in India holds various festivals, talks, conferences and many events for its students and people outside the campus, this results in poor management of printed visuals in the campus.

The aim is to study the use of temporary printed visuals and understand its effect on the environment of the campus, the consequent problems and come up with plausible guidelines and solutions.

Keywords

printed visuals, institute directional signages, institute events, sustainability, campus waste management, reduce, reuse, upcycle.

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1. Introduction

Indian Institute of Technology Bombay (IITB), located in Powai, lets people avail the benefit of being in the busy financial capital of India, at the same time, enjoy its natural beauty.[1]

Every year, technical and sociocultural events take place in the campus which receive massive response from all over the country. The mediums of communication for the new events happening in the campus are IITB webmail, social media like Facebook, YouTube and Instagram, flyers, posters and banners. Over 5,000 banners, posters, flyers, advertisements and signage (hereafter collectively referred to as printed visuals) are designed and printed by the concerned organizing body members i.e., the students of IITB for the promotion of every event. The purpose of the printed visuals is to provide information regarding events which includes date, time, title, venue, directions, etc. as required. The printed visuals are displayed throughout the campus.

After the events are over, many printed visuals often remain unattended and lie haphazardly all over the campus. Most of the visuals are printed on material called flex. Flex as a material, is highly recommended in

the print shops as it satisfies the criteria of low cost, one time use and easy availability. This material does not offer much of an advantage as they are subjected to poor quality prints, vandalism, toxic chemical emission, and they cannot be recycled or reprinted.

The objective was to understand the usage and life-cycle of these printed visuals in IIT Bombay and reduce the usage of flex so that they may be insightfully reused or appropriately disposed to maintain a healthy and sustainable environment in the campus.

2. Background

To understand the rationale behind the use of printed visuals on varying scale during different events in IITB and their effects on the campus, interviews with a few members of some event organising bodies and an online survey among the students of the institute were conducted. Additionally, various articles on sustainability, efficient waste management, plastic ban, effect of printed visuals (flex material) on environment, different initiatives and policies undertaken by organisations, communities and countries for sustenance of environment were reviewed.

2.1 Primary Research

2.1.1 Interviews and discussions

IITB holds three big festivals annually viz., Techfest, Mood Indigo, E-Summit and small scale events like Abhyuday, departmental, music, dance, drama and fashion events (e.g. Kaleidoscope). Temporary printed visuals are used during the events and put across the campus. These visuals are designed by the design manager and reviewed by their team members. The discussions were held with design managers of Techfest, E-Summit and Abhyuday. They worked on different areas ranging from designing visuals (posters, banners, flyers) to creating ambience (i.e., the campus is decorated according to the theme of an event) of an event.

Techfest and Mood Indigo were held in December 2018 one after the other. These festivals are open for everyone inside and outside the campus, which leads to larger crowd and subsequently, larger number of visuals are put up to inform and direct them. For Techfest, over 5000 copies of visuals which includes banners and posters of different sizes, flyers and directional signage were printed. Whereas, Abhyuday has quite a miniscule budget compared to Mood Indigo and Techfest, which is mostly used for the printed visuals, that are less in number. There were instances when event organisers felt helpless and demoralised as quite a few printed visuals were vandalised (misplaced, torn or thrown haphazardly) during the events.

There is a rule laid out by the administration that prohibits the use of flex material which is rarely followed. All 3 design managers concurred that until and unless a stringent rule is implemented, they would not be able to switch to relatively expensive, recyclable alternatives. Flex material is much cheaper than other materials which are recyclable or biodegradable, making it an ethically questionable, yet a feasible choice. MDF (Medium Density Fibreboard), Sun board with vinyl stickers are some examples of alternatives. Flex costs ₹10 per sq.ft. whereas the other material costs at least ₹30 per sq. ft.

Use of flex is considered as a primary resource to create an ambience of the events. According to design manager of Techfest, maximum part of the budget was spent on printed visuals as there was an unspoken competition between different events teams to make their event more successful than the other events.

To avoid a hefty fine of ₹5000 by the administration, event teams tried to remove as many visuals as possible by the end of an event.

2.1.2 Observations

The event organisers believed that more the number of banners, better the visibility, better the promotion; more flexes were put up in the vicinity of the venue where the actual events took place. They stayed indifferent towards the sustainability of the campus as they cannot afford to print on eco-friendly material. The event managers were well-versed with the guidelines of putting posters across the campus. Each team had its own guidelines with regard to poster placements in the campus. The bigger events of the institute

were sponsored by brands like Bisleri, Manforce and KTM, last of which brought their own printed visuals. Tree trunks and branches were used to tie posters and banners across the roads. Few checkpoints were bombarded with information, posters were vandalised as they had no protection. Poster stands were not able to withstand the wind or stray animals in the campus. Other than that, lots of remnants of flex material from one of the events were being dumped into the dustbins kept across roads till they overflowed. Waste from the dustbin is picked up regularly by the Municipal Corporation and taken to the landfill in Mulund. Wet waste is used by the biogas plant in the campus. Public Health Office (PHO) oversees the waste management in the campus and no segregation beyond wet waste and dry waste is done by them. Being a campus with widespread area and multiple entrances, many temporary directional signage are tied on tree trunks during talks, conferences and events and left unsupervised later which often mislead people.

2.1.3 Survey

After interviewing students who were involved in organisation of different events, it was essential to get insight from the lens of audience. In order to do that, an online questionnaire was circulated among a random set of students of IITB.

More than 85% students were familiar with the two events viz., Mood Indigo and Techfest, which are and have been very popular among students, whether they are from IIT or other institutes. Additionally, these events are promoted heavily through online as well as offline platforms. While events addressing social issues like Abhyuday Annual Social Festival are relatively lesser known i.e., 51.1%. Nature of the event, lack of glamour or entertainment, lack of funding to promote the event on a bigger scale could be the reasons for the same. 80% students agreed that they came to know about the aforementioned events by the means of posters and banners put up in the campus. While, exactly 68.9% students got to know about them through social media (Facebook, Twitter, Instagram etc.) and their friends. Though the event organisers send out detailed emails about the events through IITB webmail (the official mode of communication among all IITB personnel), about 44.4% students read them and got to know about the events. These statistics show that the printed visuals are the much more effective than other alternatives.

There were some events which were denied permission to put up flexes, for example, The First Ambedkar Memorial Lecture organised by APPSC (Ambedkar-Periyar-Phule Study Circle). A few A4 size posters were put up around the campus. Also, APPSC members went to all hostels during meal times one day before the event and marched through the mess and canteen areas while holding the flex informing about the event. Still, 68.9% students did not know about the event (survey was conducted 1 week after the event). In order to understand the idea behind positioning of printed visuals around the campus and where would they be needed more or where they would be more visible, it was important to know the most common places in the campus which students pass during their daily traverses. Gulmohar (64.1%), Main Building/Convocation Hall (56.4%), Brews & Bites (53.8%) are the places which most of the students pass on their usual routes. Overall, a little over 50% of the students travel the path in between Main Gate and New SAC on a daily basis. A few important insights from the survey are given below.

Were the directional signage put up during the events helpful?
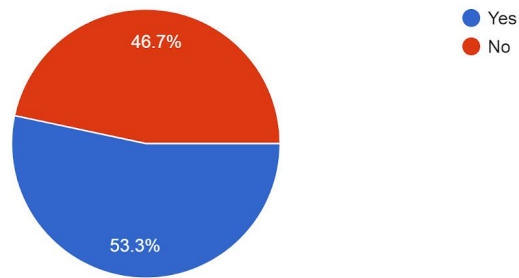45 responses

- Yes
- No

46.7%

53.3%

Fig.1   46.7% students think the temporary directional signage put up during Techfest were not helpful.

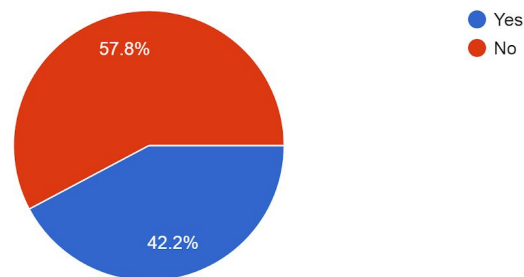## Do you think use of posters and banners for events in the campus could be avoided?
45 responses

- Yes
- No

57.8%

42.2%

Fig.2   42.2% students think use of posters and banners for events could be avoided.

Do you think these posters and banners hinder the aesthetics and decorum of the IITB campus?
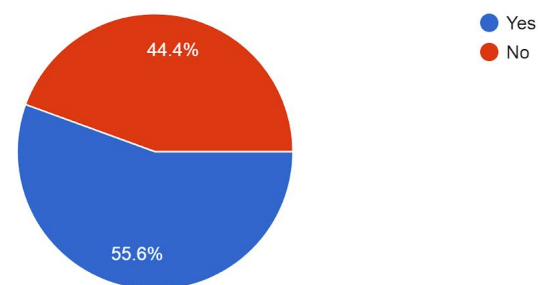45 responses

- Yes
- No

44.4%

55.6%

Fig.3   About 55.6% students think usage of posters and flexes does hinder with the beauty and decorum of the campus. 60% of design students concur with this opinion.

2.1.4 Summary of Insights

Absence of a stringent law against the use of flex, allowed the use of cheaper, non-recyclable flex material over its expensive and recyclable alternatives. It was more of a practical resort than a fair choice. The event organisers hustled through the last stage of work (testing prints, printing final visuals, putting them on frames and at different checkpoints, putting up directional signage) and tried to meet the deadlines as the events approached. This led to mismanaged events and made it difficult for event coordinators to control the crowd. Once the posters were out across the roads of the campus, there were no methods to protect them from vandalism. As posters and banners were considered to be the primary resource for creating ambience, they did not want to avoid them completely as they felt that would diminish the charm of the festival. Also, posters and banners help people become aware about event more than the social media. The flex were often dumped in SAC and a few of them were taken by residents of the campus for reuse, primarily as a shelter and protection from rain and sunlight.

2.2 Secondary Research

India generates 62 million tonnes of waste every year, of which less than 60% is collected and around 15% processed. Given the huge consumption of plastic in everyday lives, a complete ban on plastic might not be possible. However, the individual usage of plastics, which comprises almost 40 percent of the total plastic production, can easily be done away with and this small step can prove to be more useful. Prominent examples of efficient waste management in India and abroad, initiatives and policies employed to control non-biodegradable waste which consists of different kinds of plastics including flex were studied.[2]

2.2.1 Flex Ban in Bengaluru

In Bengaluru, a High Court (HC) division bench has set in motion a flurry of activity on reforming outdoor advertising in the city. A series of court orders in August 2018 directed the Bruhat Bengaluru Mahanagara Palike (Bengaluru Municipal Corporation, BBMP) to "remove all illegal hoardings, flexes and banners, as well as prevent their recurrence to ensure Bengaluru becomes a flex-free, poster-free, plastic-free city". After the deadline given by the HC, the BBMP came into action and removed nearly 40,000 flexes and illegal hoardings, and in its submission to the HC, the BBMP has stated that it has removed around 94,000 unauthorised flexes and hoardings in the city within the last four years.[3]

But as a substitute new material has been introduced by advertisers for flex. And BBMP has approved this fabric for hoardings. Advertisers say that the new material that has been proposed as a substitute for flex is good for outdoor advertising as it's water and sun proof. The material is not cotton but a synthetic fabric. This could be either polyester or nylon.[4] This kind of fabric is known for its durability. Cloth banner is increasingly substituted with the flex banners. Bright and rich colour can be printed in cloth banners. We have option of using khadi and polyester. It is equally good in both indoor and outdoor. These are washable unlike the others which can not be cleaned beyond dry clothes.[5]

2.2.2 Initiation of Advanced Locality Management (ALM) in Mumbai

In 1997, MCGM (Municipal Corporation of Greater Mumbai or Brihanmumbai Municipal Corporation i.e., BMC) started ALM concept to involve citizens. Advanced Locality Management was a partnership between MCGM & Citizens for sustainable eco-friendly Waste Management Program for the neighbourhood buildings. The main objective was to set up a system for dealing with the problem of solid waste management in an environmental friendly manner. This initiative was to clean sweep of Mumbai garbage heaps, overflowing dustbins and stinking waste.

It promised spanking clean streets, residential societies and localities, but due to lack of sustainability and motivation, it is seen that more that 65% of the registered ALMs are inactive. The BMC has deregistered 131 of the city's ALM after it warned them for being inactive and inefficient in solid waste management. Currently, 38 ALMs are functioning in Bandra (West).[6]

2.2.3 Flex upcycling initiative by Goonj

Goonj, an NGO in India, uses the underutilized and excess urban household material as a tool for rural development across 23 states in the country. It thus aims to bring an equitable relationship of strength, sustenance and dignity between the cities and villages.[7] Durability and cost-effectiveness of flex makes it the preferred material for display. Like plastic, flex too is harmful for the environment, since it is not biodegradable. However, adopting the flex for alternative uses will go a long way in reducing its harmful effect on the environment. Back in 2013, a large roll of flex was used to cover the leaky roof of the school, Achrumal Saraswati Shishu Mandir School, situated in the interiors of Gangori in Uttarkashi, Uttarakhand. The flex lasted for an entire year, and saved the school from incessant worry about repairs and the impact of monsoons. Flex pieces have also been sent to various villages in Uttron and Nald, in Uttarakhand on various occasions. During the Uttarakhand floods, flex was used to cover the tin-roofs of shanties and on the floor of flood relief centres to prevent against moisture and cold. In some centres, the flex continues to be used to ease the severe cold characteristic of the region and to make cleaning easier. Soon, flex began to find its way into many daily products like handbags, wallets, pouches to protect sanitary pads for women of far off villages to store their cloth pads. It has definitely made products more durable and strong.[8]

2.2.3 The Swedish Recycling Revolution

Swedes recycle nearly 100 per cent of their household waste — that's if included energy recovery, when waste is turned into energy through burning. And to have something to burn, Sweden even imports waste from other countries. Weine Wiqvist, CEO of the Swedish Waste Management and Recycling Association, still thinks Swedes can do more, considering that about half of all household waste is burnt, that is, turned into energy. He explains that reusing materials or products means using less energy to create a product, than burning one and making another from scratch.

Meanwhile, Swedish households keep separating their newspapers, plastic, metal, glass, electric appliances, light bulbs and batteries. Many municipalities also encourage consumers to separate food waste. And all of this is reused, recycled or composted. Newspapers are turned into paper mass, bottles are reused or melted into new items, plastic containers become plastic raw material; food is composted and becomes soil or biogas through a complex chemical process. Rubbish trucks are often run on recycled electricity or biogas. Wasted water is purified to the extent of being potable. Special rubbish trucks go around cities and pick up electronics and hazardous waste such as chemicals. Pharmacists accept leftover medicine. Swedes take their larger waste, such as a used TV or broken furniture, to recycling centres on the outskirts of the cities.[9]

2.2.4 Summary of Insights

From the roofs of makeshift shanties, to wallets and even pouches for sanitary napkins, finding alternative uses of flex is undoubtedly a step in the right direction to not only make full use of existing material, but to also save the environment while doing so.

Instead of burning the waste (biodegradable and non-biodegradable both) to produce energy, recycling and upcycling are considered better solutions to manage plastic waste.

Clear segregation of the waste in various categories like plastic or pet bottles, paper waste, wet waste, e-waste, metal waste helped Sweden to manage the waste better leading them towards zero waste. Well-designed visual indicators of these categories helped citizens to segregate their waste in the first stage itself. Citizens being one of the crucial stakeholders need to be more aware about the waste management as many initiatives by different organisations have tried to nudge them to change their usual negligent behaviour and made it possible to reduce the use of plastics in their daily life.

Application of strict rule, to ban flex was a positive step towards sustainability, but it did upset many printing vendors of Bengaluru as it raised concern over the employment of people involved. Intolerance towards unhygienic atmosphere around the living space has sensitised people to actively take initiative towards better waste management.

3. Visual Documentation

The printed visuals of different events happening in the span of seven weeks (from 24th December 2018 to 10th February 2019) were photographed. From table-tops to flyers, from posters to large flexes were photo-documented. The area of focus was to document the journey of the printed visuals before the events to after the events. Positioning of printed visuals, their types, methods of installation, their visibility were a few of the many factors being considered in Photodocumentation. Instances of flexes being reused and remaining unused were captured during extensive visits to different areas of the campus. Below are selected images with explanations, which led to important insights.

Fig.4   According to guidelines provided by the Institute, nobody should nail or stick any visuals over the trees. Therefore, students have tied A4 laminated sheets over the tree trunks.

Fig.5   Since there are no guidelines for constraint on number of posters to be stuck or put in a particular place, it often results in overcrowding and repetition of information.

Fig.6   Several flexes were printed to develop the ambience of the events and for guiding the visitors to the venue.

Fig.7   Some information irrelevant to the event mentioned on the flex is written on the flex itself spoiling the aesthetics of the visual.

Fig.8   Stands of the visuals could not resist the breeze or cows and were not sturdy at the base. They were falling constantly, the design managers realised the issue and one of them said that they would not use standees in the future.
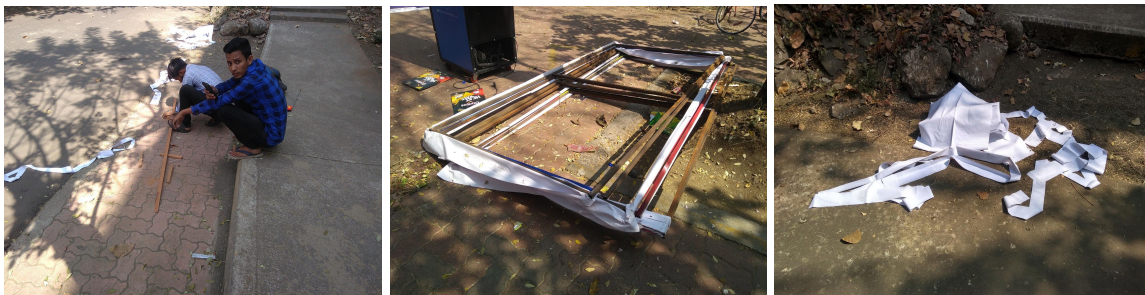

Fig.9   During the installation of printed flex itself, a lot of remnants are produced.

Fig.10   The visuals are often vandalised for unknown reasons.

Fig.11   The printed flex from various events and advertisements are being reused by the residents of IITB for shades, protection from sunlight and rain.

Fig.12   Many flexes lie around in the campus unused and eventually, they wore out rendering them useless.

Content generated as a part of visual documentation is used for creating a webpage for awareness. The link is given in 'Insights and Guidelines.'

4. Insights and Guidelines

- Absence of stringent rule gives students a leverage to use flex on large scale hindering the aesthetics and environment of the campus. Extravagance of events takes precedence over any environmental concern. When Bengaluru High Court issued ban on flex, the printing vendors were fined if they defied the orders. Use of eco-friendly material should be promoted as the fabric offers durability and better colour prints.

- Currently, waste in the campus is segregated in two categories — wet and dry waste but there is a necessity to segregate the waste further into categories like glass, plastics bottles, flex, etc. as every waste is processed differently. Segregation is very essential for the smooth management of campus waste. It helps in reducing, recycling and reusing the waste. Mixed waste poses problem in segregation and finds its way into landfills, which is a waste of scare land resource.

- It is important to have well-thought design of visuals and standardised systems for them. Visuals are generally subjected to vandalism as the flex can easily be torn, standees can fall and posters tied across the roads can swing away. These visuals carry important information about talks, events,

conferences and messages. There should be well-designed permanent signages and screens mounted at certain checkpoints- Gulmohar, Main building, SAC and junctions in the campus (it was recorded in the survey that maximum number of students pass through these areas).

- Being in campus, whether for a short or a long period, it is imperative for an individual to prioritize sustenance of the natural beauty and decorum of the campus and importance of ambience of events. The latter is a major contributor to non-biodegradable waste in the campus.

- There should be an active waste management body to inspect, create awareness and regulate the use of plastics and flex in the campus.

- Workshops on upcycling of flex should be organised in the campus and they should be open to all. Creative and sustainable use of flex and proper waste management by the residents would lead to cleaner and healthier campus.

- Social media pages should be emphasised more than printed flex. Event organising bodies should try to advertise more through their pages by updating them regularly. The message, "Reduce and Reuse flex" should be communicated well to all the residents of IITB campus through videos and social media pages. As a first step towards awareness, a webpage has been created by the authors of this paper.
  Webpage link: https://spark.adobe.com/page/ebKpSWkewGDJu/

5. Conclusion

Promotion of different events should be a well-designed balance of standardised printed visuals and social media campaigns, with strategic use of available resources. Flex based temporary printed visuals come at the cost of sustainability. Elimination of the plastic consumes time, money and a combined effort on the parts of many people involved in the process. An effective action plan is needed for reduction of flex usage and proper waste management in the campus at the earliest before it becomes a grave environmental problem. A sense of responsibility towards the well-being of the campus needs to be instilled among the individuals and institute bodies alike to ensure active participation and engagement in the process.

6. Acknowledgements

7. References

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Awareness Webpage :
https://spark.adobe.com/page/ebKpSWkewGDJu/

Additional Media Files :
Link to all photos segregated during photodocumentation is given below:
https://drive.google.com/open?id=1jYV5G7jRPvcbu8svruxSgx5FYwEwxTwI

Link to the survey carried out among students of IITB is given below:
https://drive.google.com/open?id=1LcTWQEnzMT61wLd11M52GJN-7EsDDGqZh8yJ6R0FXRY