

Developing Virtual Social Communities

Lessons Drawn from Two Indian Social Communities

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Abstract — This paper presents two case studies of how the Bohra community and the East Indian community in Mumbai, India make use of social tools that include their own customized community online portals, Facebook and YouTube to create and manage social content for their respective communities. The aim is to contrast and identify learning points with regard to the usefulness and effectiveness of social tools for community engagement, and to infer design and development factors for building social innovations for communities in the future. The findings suggest that five areas are of particular importance: (1) Content and knowledge creation, (2) Preservation of cultural identity, (3) Design for social structures, (4) Engendering community trust, and (5) Adapting appropriate integrated-hybrid models.

Keywords – social tools; community; Bohra; East Indian; Mumbai; online portal; social innovation; community engagement; knowledge; cultural identity; trust

I. INTRODUCTION

This paper presents a baseline study of a research project by the COSMIC (Center of Social Media Innovations for Communities) at NTU (Nanyang Technological University, Singapore) which focuses on developing social media tools and innovations for developing communities, specifically for India's middle of the pyramid population. As part of this endeavour, this preparatory study employed a series of field interviews on a sample of community respondents to explore how two contrasting communities in Mumbai, namely, the India-Dawoodi Bohra and the East Indians, adopts certain social tools in preserving their community identity and maintaining their everyday social practices as exemplary cases whereby learning points can be drawn for building social tools for communities in the future. Semi-structured interviews with key informants and community gatekeepers are used, with each interview lasting between one to two

hours. Each interview is also transcribed and content analysed using a line-by-line coding approach, to understand how community portals are used.

Before proceeding, it is necessary to clarify our concept of analysis. We use the term 'social media' as a rather loose construct in the paper. This is intentional as the term has been widely defined and used in more western and developed societies. Kaplan and Haenlein [6] created a classification schema for social media, and in the process, distinguished the different social functions resulting in various outcomes such as Wikipedia, social networking sites like Facebook and LinkedIn, and gaming worlds. We acknowledge that these applications are characteristic of the contemporary Web (2.0), yet we would like to maintain the distinction between the definition and application of social media. In fact, Kaplan and Haenlein's article [6], titled 'Users of the world, unite!' was extremely provocative to us. The many examples of social media today are applications that are intricately associated with the technological presence and environment of the Web. But such applications and technological environments are not omnipresent in the 'world' as described in their article's title. In societies where such technological environments are absent, does it mean that it is impossible for social media applications to emerge? We would like to suggest that this is not the case. And in order for us to predict the technological forms of social media in such societies (like India), it is necessary for us to consider not just the technologies in use, but also the cultural practices that are closely entwined in such technologies. This is the objective of our paper.

The paper will first go through the findings of our study with regards to the community members' use of social tools in each of the 2 case studies, the Dawoodi Bohra and the East Indians from Mumbai, India. The 2 cases will then be compared to discuss valuable learning points. As a

concluding note, we will reflect on relevant implications for design and future research.

II. CASE OF THE DAWOODI BOHRA IN MUMBAI

The Dawoodi Bohra is a Muslim community that originated from India. Their community leader is *Syedna Mohammed Burhanuddin (TUS)*. Although there are around one million Bohras worldwide (Hong Kong, Singapore, Thailand, Malaysia, Canada, USA, and Middle East), most of them reside in Mumbai, Gujarat and Central India [7]. Overseas Dawoodi Bohras are settled in large ports and cities and are chiefly engaged in commercial and business occupations [3]. The Bohras typically perform and adhere to their religious rituals, social and cultural traditions with much zeal, regardless of their locations. With the advent of ICT, the Bohras have made use of community portals [2] with the main purpose of staying connected with their community and to carry out unique functions and purposes served by the community. The portals have standard functions such as log in, news, photo upload, archive, and directory services (see Appendix A for the screenshot of the portal). However, in order to access the site, each user has to use his or her own e-jamaat number on e-jamaat card which is essentially an identification card for the Bohra only. Once a child is born in the community, the child's parents would have to apply for the e-jamaat card for the child. The card number is a unique identifier for each individual from cradle to grave. This smart identification system does not only make these community sites serve as closed systems that are accessible only to its members but also forms the pillar in the organised management hierarchy in the community. As a result of such exclusivity, all of the information and content created among the members are discussed within the system's boundaries and not publicly available elsewhere. The following sections report on the findings on a series of 13 semi-structured Bohra interviewees conducted in Mumbai, India in January 2012. These interviews were conducted to understand how the Bohras use their community portal and e-jamaat card system. The interviewees consist of Bohras who have either used or not used the portals before (and if not used, we sought to understand the reasons why they were not using them).

Community prayer sessions make up one of the main pulses of the Bohra community. Because of its importance - both as a ritual and symbol of the community's identity, leaders of the community have initiated the use of *Ejamaat.com* to facilitate individual registrations for such prayer sessions. When a community member wants to register for a prayer session, he has to log on to the *Ejamaat.com* site and register. The system returns a pass and barcode for printing. At the prayer session, the local head priest checks the barcode to know if a person is registered or not. Furthermore, every e-jamaat number is associated with a mobile phone number. As long as a community member registers his phone number with his e-jamaat number, he will automatically receive event alerts via SMS. As such, community members who do not register their mobile phone numbers, including children (who are not old enough to use mobile phones), are excluded from such a service from the

Bohra local head. These SMSes are managed by an appointed person who assists the local priest in the community management system. He is the one who has access to the database of his local community households' e-jamaat numbers, addresses, family members, business, and other information. He is also in charge of uploading photos of functions or news about *Syedna* (the community leader) on the portal. Community members who wish to upload photos cannot do it directly on the portal. Instead, they will need to send them to him who acts as a gatekeeper and moderator to determine if these photos should be uploaded. Successful uploads are acknowledged by him through SMS. As such, the content in the portal and the determination of what information is being pushed to the members' mobile phones are strictly and solely controlled by the local leader who closely follows *Syedna's* instructions. This form of centralized authority implies that the local head is a very trusted follower who acts as formal advisor (on careers, business, etc.) for everything, especially when community members are unable to obtain the desired information from their friends or families.

In addition to the local head, there are committees that manage other aspects in Bohra community. *Faisal Hussani* is the community travelling department which acts as a travel agent for the Bohras. Health camp and cooking camp are organised on a frequent basis to educate the Bohras of health issues, and traditional Bohra recipes with accompanied demonstrations. *Kardan Hasana - Committee of the Trust Fund* is in charge of processing loan requests from community families who want to borrow money for business or education or any other purposes. The *Thehsun Nikah Committee (TNC)* handles the database of boys and girls at marriageable age to match them if requests from parents are received.

Such a structural set up helps to explain why certain portal functions are used while others are not used at all and how social content on the Bohra sites are created. Although usual portal functions such as forum, news, photo/video/archive, and so on, are all available on all Bohra sites, the interview respondents reported using only the registration function (be it registering for praying or functions/events). Users do not see a need in using the forum to ask questions or advices, even for cooking tips. Neither do they use the portals for business advertising despite the fact that Bohra is a business community. They are used to the traditional model of family business through generations so that the need to engage customers outside their existing networks is not present. However, 10 respondents who are in some business or another, expressed the need to find other Bohra businessmen or businesswomen around worldwide, which are currently not met by the available business channels in the community such as community magazines (*Badre Munir* and *Nasim Sehar*) and *Bohrani expo* (held yearly in World Trade Center in Mumbai). As a result of the lack of practical needs, there is no social interaction on these portals. Putting it simply, the sites are used for pragmatic, rather than social reasons. "We

are not socially interconnected to others because the platform allows connection to the community governances but not with other Bohras", said one of the respondents. The so-called new media (Web 2.0) is used in a traditional, one-way communication manner.

However, in terms of sharing photos, the shortcoming does not lie in the lack of usefulness of the portals but on the affordances of these tools. As mentioned, users cannot upload photos for sharing directly but need to have these screened and approved through the local head. As a result, public social media platforms such as Facebook and Flickr are used by the community members to share photos instead. Facebook is also used to search for long lost friends who are not on the existing Bohra networks/sites. Some respondents also use their mobile phones' Bluetooth capability to share photos. Apparently, Facebook is heuristic and simple enough for the community to use it at the personal level.

Such a conscious usage by the community reflects, to a certain extent, however bonded, well-organised a community is and however well-controlled the communal technological platforms are, interactions at the sub community level is technologically determined. Having said that, a certain level of trust must be present for the members to adopt Facebook as a photo sharing platform over their existing community portal. Some respondents pointed out that even if they are allowed to upload photos on the communal portals, they would still prefer to share their photos (of community functions) on their Facebook accounts.

Although social interactions are not happening via the portals, the Bohras have other platforms of gathering and meetings. There are religious gatherings that last up to ten days. One example is Moharram when everyone is dressed in Bohra style so you can tell and meet new members of Bohra community. In fact, there are up to 8 such long duration events in the year.

As a result of the Bohras' adopting the portals as a bank of information passive viewing rather than collaborative/interactive platforms, respondents unanimously reported that they just visited their community sites for topics like education in community, news about the leader's lectures and travels, and photos of events. Sites like Malumaat.com are created to become the only trusted source of official community information to keep everyone updated worldwide. Almost all respondents feel this is sufficient and there is no need to have other platforms or supplemental information on this website either.

Along with the portals, other traditional print media such as flyers and pamphlets, books and magazines are dominant in the Bohra community. Flyers are given by local head or casually passed by their Bohra neighbours. Magazines are published once every month which are available for subscription. Content in these are mainly messages by the leader. Larger and more important events will appear on TV and printed newspapers. There is a book-

Saifa covering all Bohra festivals and traditions, available in the most updated edition. Another book-*Busahebaa Saheefa* includes all typical rituals such as what to do when a child is born, sex education, gift in proposing, etc. A problem with these traditional media is the same information is being circulated over the years. Some respondents from our study expressed the need to know if new tradition or knowledge of the community exists since they have been uniformly taught the same thing over time. This poses a challenge to the evolution of community knowledge – how will new information be generated and how new is "new"?

The Bohra online sites were launched around 12-13 years ago (around the same time of the explosion of Web 2.0). However, interestingly enough, 3 respondents have never actually used these sites mainly due to the lack of computer literacy. Many of them pointed out that it is inconvenient to visit these sites since frequent power cuts in Mumbai does not allow them to have computers on all the time and few people own phones that have Internet access. These observations are reinforced through the interviewees' reflections on SMS and the mobile phones: *"Every day morning we have to check our SMS to see if anything is there."*; *"SMS is the fastest and best rather than going and sitting on a laptop or a computer and then opening the site and see what is going on."*

The trend of favouring SMS as the means for community engagement negates the effectiveness and potential of Web 2.0, resulting in an early detection of the digital divide. The older respondents above 50 fifty years old expressed doubts and hesitance in using Facebook: *"Facebook is all youngster"* was noted by one respondent. These elder folks rely on their children for information updated on the portal or the most recent news that are not circulated via SMS. A quick and simple analysis of 63 Twitter feeds about Bohra on Twitter on a random 24 hour period also supports this observation of the digital divide. Most of the tweets belong to the younger generation, with the oldest being middle age.

III. CASE OF THE EAST INDIANS - MUMBAI

The East Indians are Christians baptised by missionaries from Portugal in the 16th century [1] and have unique daily practices ingrained in music, prayers, and food. In stark contrast to the Bohra community, the East Indians have adopted and embraced open platforms like YouTube and Facebook much more widely in addition to their official websites.

At a first glance, East Indian websites [5] are not as advanced as the Bohra sites with professional design looks. The sites include a simple blog, a short history of the community origins, categories like Language, Folklore, Religion, Prayer request, Job opportunities, and others (see Appendix B for the screenshot of the website). The main difference in the East Indian sites as compared to the Bohras' is that information is publicly available and the sites allow participation without any constraints. In other words,

the community does not adhere to any strict rules in sharing information within and among other communities. Even though one has to register with the site administrator using their personal email, they can log in easily once the administrator approves. Such an openness is due to the fact that the East Indians are becoming more and more dispersed and their identity are fading away even among their own community members.

A total of 12 semi-structured interviews of East Indian respondents were conducted in Mumbai, India in February and March, 2012 with the same objectives to understand what are the technological platforms adopted by the East Indians for communal purposes and preserving community cultural heritage. Interviews lasted on average 1 hour and 30 minutes. Each interview was translated and transcribed in English for content analysis as before.

In this community, the impetus to create social content is mainly to create awareness amongst those outside the community and highlight East Indian issues and concerns to various government agencies due to their lack of visibility in popular media. Concurrently, the East Indians of Mumbai have adopted Facebook and YouTube much more widely on a communal level, as compared to the Bohras. The volume of user-generated content is greater and new community practices were observed.

A content analysis of the East Indian Facebook page [4] (where the author is a member) provides an insight in new activities in these platforms, such as organising singing competitions, gathering requests, recipes sharing, and others. The Facebook community pages are updated as many as 20 times daily in terms of current news, daily prayers, religious videos, ringtones of East Indian songs, singing competition announcements, and so on. Participants are mainly administrators followed by the newer generation of migrants living in modern localities with the know-how and access to the platform. All of these updates are simultaneously reflected in real time on Twitter under the ID #eastindians. YouTube is used to upload singing competition videos only. Videos are tagged with proper singer names and song titles. The number of views (145 views on average for a video) and comments (2 comments on average) reflects a considerable amount of user participation.

The concept of boundary objects holds much relevance here, to understand the community's use of multiple applications in Facebook, Twitter and YouTube. The content posting feature in Facebook, for example, presents itself as a boundary object for different members of the community. The concept of boundary objects was first introduced by Starr [8] to describe symbolic objects functioning as an interface between communities. Such objects may be shared and used in common as they are understandable to the users, but participants need not understand how the others use it, nor are they required to comprehend how others interpret these boundary objects. Boundary objects are thus useful in presenting points of

negotiation and mediation between community members, but are yet flexible enough to be adequately understood by people living and working in different contexts, to allow for collective work and content to be shared. In the case of the East Indians, they provide a common interface for members of the community to gather with the collective purpose of producing and sharing content. In other words, boundary objects can also be seen as a set of knowledge on its own, with the techniques of community interaction embedded within these objects.

Singing is a unique identity and much loved culture of this community. Frequent competitions of up to 3 times per month are not unusual. Beyond the Internet, they are regularly conducted at different timings in different villages in Mumbai. However, the participation from youngsters and teenagers in this activity is noticeably low. Most participants are middle aged or older. This alludes to a generation gap in the community. Through our field studies, we found out that, in fact, the young are not interested in the community culture. What we observed on the East Indian sites proves that not only a generation gap exists but also a decreasing rate of participation among members. Blogs on the sites seem to encourage passive readers and not contributors. Even short responses, if they exist, will definitely help to strengthen the community identity to a certain extent. However, the low participation could also be due to the fact that the 'active' elders in the community rely on their children who are more tech savvy.

The East Indian community engagement activities are still very physical and locality based. The activities are locally based on individual villages whilst in the Bohra case, festivals and functions can be held in different localities but they are unanimously happening at the same time in Mumbai. The Bohras worldwide are updated with photos and news on the portals. The absence of capturing such festivals and online sharing of such memories in the East Indian community shows that they still prefer face-to-face gatherings, keeping subsets of the community engaged rather than the community as a whole. Such community fragmentation and spatial divide can be detrimental to sustaining the community identity and heritage in the long run.

Similarly to the Bohra, the East Indians still rely heavily on traditional print media. Every village has a community magazine. These magazines are mainly used for matrimonial advertisements, job opportunities and other such marketing needs. Magazine seems to reach more people due to its tangible nature. Discussions about the articles in the magazine also take place during church events or social gatherings as suggested by respondents in the study.

IV. LEARNING POINTS AND DISCUSSION

The case studies showcased two distinct communities with different structures, having different information needs,

and adopting and using different combination of social tools for their engagement (Table 1).

TABLE 1 - COMPARISON OF THE MAIN CHARACTERISTICS OF THE TWO COMMUNITIES

Bohra	East Indians
Customised main portals: Ejamaat.com, Malumaat.com, Zeninfosys.com Others: Ajnoudin.com (1-2 lines daily prayers mainly used by Bohras in US); Moumennin.com (Business information, including advertisements); Vatansidhpur.com (General information for Sidhpur (Amatulla Saifee) community)	Open global social media systems: Facebook and YouTube. Others: Community association website
Community activities are not locally based (Registration for gatherings from almost everywhere)	Community activities are very locally based (E.g. Singing competitions, Local church meetings, individual village themed festivals (Food fests, cultural fests))
Digital divide: Mobile phone (elderly) vs Facebook (young/teens)	- Generation divide - Different levels of technology adoptions between the old and young generation - Spatial divide and community fragmentation
Trust in technologies: -Through practical use of customised portal, and -Adoption of Facebook (photo sharing, people/friend search) and Bluetooth (photo sharing)	Trust in technologies: Through adoption of Facebook and YouTube (photo and video sharing)

Arising from these findings, the discussion and learning points are centred on the following 5 areas:

A. Content and Knowledge Creation

The closed system adopted by the Bohra community ensures the old and existing knowledge is carefully maintained, preserved and passed down, thereby helping to protect their heritage and values. However, at the same time, the closed system inhibits the collaborative participation of individuals and subsequently, impedes the process of knowledge creation. The portals do not allow users (except the local leaders) to upload photos themselves, which can potentially become new knowledge. Even though such information might be considered peripheral secondary knowledge, such photos or any other inputs from the community members in future are valuable and critical for the process of creating content and knowledge for community sustainability.

One of the major challenges moving forward is to find and devise mechanisms to encourage the community to participate more actively in the information and knowledge

creation. For example, if blogs on the Bohras can be created by capturing speech and subsequently transcribed into text automatically, there could be more motivation, through alternative inputs channels, for the users to contribute content. In other words, multi modal tools to capture information should be considered as opposed to the persistent and use of text-only mechanisms that most social tools are now equipped with.

The East Indians, on the other hand, adopt an open system that can reach larger masses but they are at the stage of being susceptible of losing their identity. Besides, they tend to have community engagement activities in physical spaces. The challenge with such an open system model is to explore in what ways social media tools can be further enhanced or endowed with features to translate and transform the physical to the virtual yet maintaining good user experiences. Nevertheless, due to their natural endorsement of public social tools like Facebook and YouTube, the East Indian community has a good chance to embrace the evolving and new generations of the virtual environment.

B. Preservation of Cultural Identity

The Bohra apparently has a strong identity as a business community but in terms of interactions, may not exchange as much cultural content as the East Indian community. The East Indians' singing and traditional songs undoubtedly forms part of their unique cultural identity. The social media tools like Facebook and YouTube are facilitating to capture the intangibles of this identity to ultimately preserve the East Indian identity for time to come. Their use of media tools such as Twitter, Facebook and YouTube, also provides a new collection of knowledge about the cultural interactions and identity of the community. Towards this end, the concept of boundary objects may be used to understand the dynamics of the social infrastructure operating within the East Indian community.

C. Design for Community Social Structures

The Bohra community is so well-organised with explicit manpower allocation and structure that the community members do not feel a need to use the portals for functions other than registration. New practices of how a community can use a default set of social tools (portals in this case) are lacking due to their satisfaction of the status quo. For such a centralised and orderly community, its social structures have to be taken into account in the development of social innovations; otherwise, the solution proposed will be rendered useless and redundant by such a community.

D. Engendering Community Trust

Any social innovations to be developed in the future must be aligned with the existing community's preferred medium. For an exclusive community like the Bohra, the members trust their own customized web portals because they trust the community authority. Many of the Bohras

expressed hesitance and doubt in other platforms not recommended by the Bohra leader. In order for an innovative tool to be used by the Bohras, it has to win the trust of the community leader and gatekeepers to ensure mass adoption of the community later on.

In contrast, the East Indians adopted Facebook and YouTube due to the conveniences offered by such platforms, which means trust in technology is built inherently from affordances of the technology. Recognizing the element of trust before embarking on any particular platform/social tools increases the chances of success in adoption.

Almost all of the interviewees, regardless of which community they are from, highlighted the convenience of SMSes and mobile phones, which is the preferred medium for communication. This knowledge of the trust model and preferred channels of communication provides potential opportunities for new social tools.

E. Adapting Appropriate Integrated-Hybrid Models

Social media portals are designed to support many-to-many communication interactions but in the case of the Bohra portals, they were transformed back to a one-way centralised platform mainly to mass message the community with little or few opportunities to draw participation back from the members. In other words, the Bohras managed to adopt the multi participatory and socially enabled Web 2.0 tool to conform to their social structures. As a consequence, they failed to harness and exploit the potential of web tool. Moving forward, an adapting hybrid model that can integrate or mash together both these open and closed requirements may be feasible. Hence, a combinatory closed system of trusted web portals interfacing with open social tools like Facebook to encourage multi way communication could be beneficial to the community. The challenge is how the Bohras can still allow such technologies to have a space within their technological framework without threatening or disturbing their social structures. This might be more difficult to achieve as compared to the East Indians whose has the advantage of a strong cultural identity where current social tools can support.

V. CONCLUSION

The insights drawn from the study of these two contrasting communities convey a strong need to create a new generation of collaborative platforms for community members who collectively adopts a range of preferred technologies depending on their age groups and literacy levels. It is crucial to address the behavior of those that have

an active social life but have not yet extended that to become mobile.

Addressing such user needs will lead us to the design of a holistic solution that will both be contextual as well as global in nature in order to meet specific goals. A research driven iterative design process should be followed in this situation, incorporating user feedback at regular stages so as to evaluate initial concepts. In order to further refine the concepts, other forms of data collection, such as a quantitative survey, may be conducted with the targeted audience to collaborate and reinforce the qualitative findings. Finally, the proposed solution should be tested in contextual environment and detailed in order to be completely intuitive to the users of such a traditional yet pervasively online community.

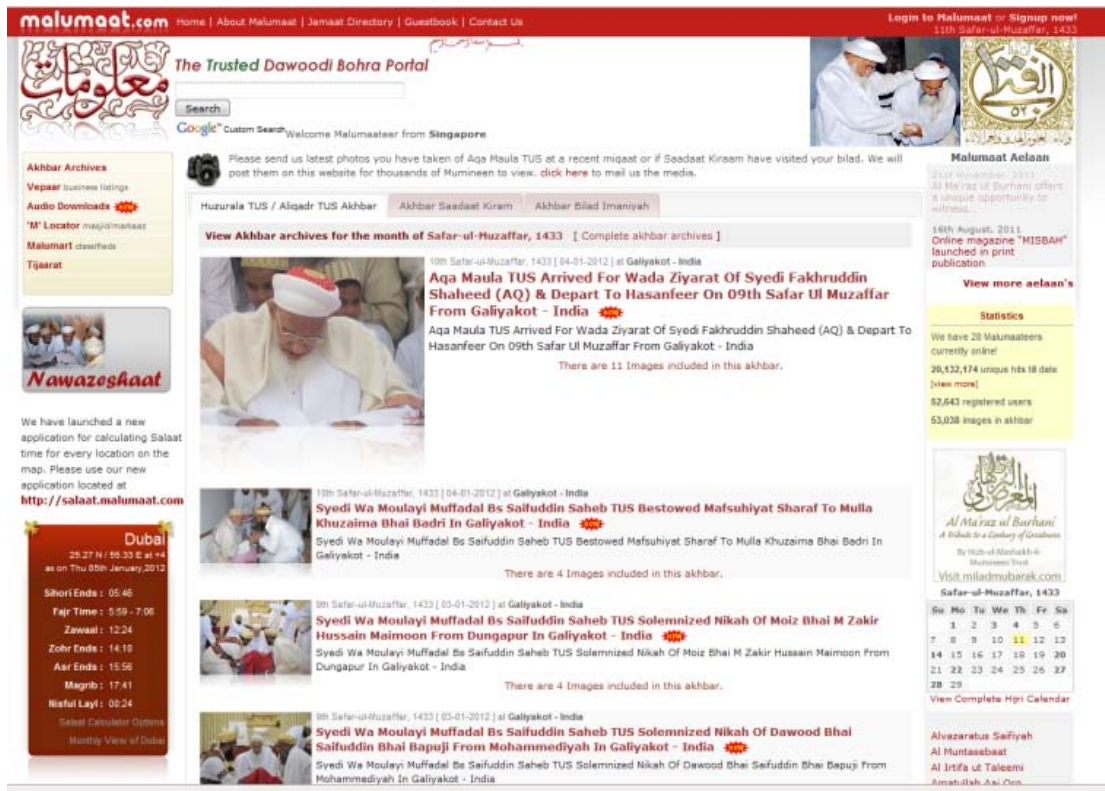
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Appendix A



Dawoodi Bohra Community Portal Home Page (<http://malumaat.com>)

Appendix B



East Indian Community Portal Home Page (<http://www.east-indians.com/>)