

Designing an Interactive Non-Linear Documentary

Contributed by Public Participation: Suburbs of Istanbul

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ABSTRACT

Suburbs of Istanbul is a web-based interactive documentary project that examines the identity of suburban neighborhoods in Istanbul through the participation of its residents via online submission of their visual and written stories. Public participation also led the design process and helped prototype the interfaces of this non-linear documentary. This project aims to contribute to the field of interactive documentary and non-linear storytelling by integrating participatory design techniques in the prototyping process of documentary interfaces. Involving public both as content providers and as active decision makers in design process lead to a more genuine outcome with a human-centered approach. This project also intends to create an interactive experience to provide a greater insight into rapidly changing lifestyles of Turkish people, to provide a global context to the stories presented, and to generate widespread awareness of issues surrounding suburban lifestyles across the world.

Author Keywords

Human-centered design; Interactive documentary; Participatory design; Non-linear storytelling; i-Docs.

CSS Concepts

•Human-centered computing~Interaction design~Interaction design process and methods~Interface design prototyping •Human-centered computing~Interaction design~Interaction design process and methods~Participatory design

INTRODUCTION

Suburbs of Istanbul, is a web-based community participatory interactive documentary that investigates the identity of “suburban” Istanbul through the eyes and voices of those living in the city. To that end, *Suburbs of Istanbul* combines video portraits, photography, soundscapes, data visualiza-

tions, and community-generated content to bring these stories to life through an interactive online experience. The project provides an online platform where suburban residents of Istanbul share their stories and experiences around their new “suburban identity.”

The project is intended to reflect real life stories in an intimate and personal style directly from the residents’ point of view instead of the producers’ perspective. In most online participatory documentaries, it is common to find user-generated content, integration of personal comments, open databases, etc. However, only a few of them involve collaborators in the design process of the documentary. This interactive participatory documentary project, *Suburbs of Istanbul*, is intended to further the discussions surrounding the active participation in the decision making of design process via participatory design technique. The interfaces of the documentary were prototyped together with participants discussing and evaluating user needs, thus this documentary project embraces an organically growing human-centered approach rather than an already staged and planned artistic one.

In this paper, following the background, we explain the methodology used in the project: Multiple community workshops organized for both content generation and for identifying a suitable design for the entire audience experience. Then, we summarize the interface prototypes of each page in the documentary together with the lessons learnt from the design workshops.

BACKGROUND

Urban Transformation in Istanbul

Migration, be it internal or external, often leads to suburban sprawl around major cities over the long term, as the newcomers and their children establish themselves in their newly adopted society. Depending on a number of socioeconomic and political factors in the city and country in question, this sprawl may take a variety of forms, ranging from cookie-cutter large houses in cul-de-sacs in suburban Washington DC to high rise apartment buildings on the outskirts of Beijing. As we tackle the issue of sprawl, we also need to contemplate the long-term solutions to education, integration and housing for the newly arrived, their offspring and future generations.

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Suburbs of Istanbul grows out of a yearning for understanding life in such a suburban sprawl and a desire to provoke a healthy debate on what choices we make over the next few decades globally. The city of choice is Istanbul; the only bi-continental city in the world, the battered recipient of decades of migration, a city at the crossroads of East and West, Asia and Europe, pious and modern. A city that has “overflowed” its boundaries many times over, suburbs of yesteryear now considered “urban,” ever-expanding in every direction with a seemingly insatiable appetite for more housing to accommodate the rich, the newly rich, and the aspiring rich.

Long-admired for its singular status as a Muslim majority country that has embraced democracy and has enjoyed mostly sustainable economic growth, Turkey, much like her European counterparts, has changed drastically over the past few decades [13]. Migration, both internal and external, has been both a driver and a consequence of these changes.

The story of Istanbul is the story of Turkey; of boom and bust economies, of rather reluctantly integrating migrants from the countryside and refugees from lands of other languages and cultures, of suburban sprawl increasing, urban identity facing changes beyond control, and of challenges and triumphs of major proportions. *Suburbs of Istanbul* aims to explore the human stories of this reality and go beyond the macro-scale academic studies of numbers and figures.

Interactive online documentaries

Thanks to digital platforms, new approaches give an innovative way to traditional documentary field in terms of distribution of stories, navigation models and content production. Accessibility of stories has increased over the past 20 years, with the help of Internet without any limitation of time and place. Traditional documentary, whereas, has limited options for distributing its stories.

Regarding navigation models, traditional linear documentary is one-way communication in which information flows from producer to viewers, more like a monologue [9]. It is a passive medium in which all viewers follow the same linear storyline without changing or directing it. Digital platforms brought about the concept of interactive documentary, which allows viewers to choose different paths within the same content and provides a user-tailored screening [12]. This new form of media offers an engaging experience for communicating its message to a large and diverse audience. As Martin Dornberg and Daniel Fetzner suggest [6], interactive documentary practice can help both the participant and the viewer to interrogate the two-way relationship between self and other. In interactive web-based documentaries, varying degrees and modes of interactivity play significant role in transferring messages and emotions; thus they are changing the way of communication. As an example for emphasizing the emotions, in the documentary *89 Steps* [1], the number of steps (89 steps) that the 65-year-old lady climbs to reach her apartment everyday is emphasized by making viewers click and hold the mouse until she reaches her apartment. Her tiredness when climbing up the steps is experienced by view-

ers' fingers holding the mouse clicked. At this point, our intention is not only to inform, but also to make worldwide audience internalize the stories and feel the deepest emotions of the residents of Istanbul through powerful interactive experiences.

The participatory approach of Web 2.0 [17] and widespread use of social media [3] have also been giving new directions to documentaries in terms of content production in the last ten years. Gaudenzi states that a non-linear documentary can be created in three different ways in terms of interactivity and participation. It can be semi-closed in which users can only discover but not change or add content, it can be semi-open which allows users to contribute with content but not change the documentary flow and finally, it can be completely open that user and interactive documentary are in a continuous change and adaptation to each other [10]. To give an example, *Welcome to Pine Point* [21], which is about the disappearance of a mine town called Pine Point in 1980s, can be considered as semi-close type. In this interactive documentary, users can only browse and discover stories; thus, they can act only as viewers. Whereas in *Immigrant Nation* [20], which is an example of semi-open type, users can add content of their own production but not change the documentary structure. In this kind of collaborative documentaries, audience become prosumers, who want to produce and contribute instead of solely consuming [23]. Adding their own content creates also new conversations about the role of prosumers as co-producers, co-creators or co-authors of the final product. Moreover, allowing content contributions makes the documentary more organic and dynamic which is not possible with linear documentary [11]. For completely open documentary, there is not any exact example as of yet which fits the definition, but *Man with a Movie Camera: The Global Remake* [2], which is a participatory video shot rather than a documentary, can be given as one of the closest attempts. In this project, users are invited to upload remakes of the scenes of Vertov's 1929 film “Man With A Movie Camera”. As long as the contributions are received, new versions of the film are built organically everyday. Lack of examples for completely open documentary type shows that directors prefer to keep the power of ownership and decision-making of the artistic perspective of the final products.

Suburbs of Istanbul is intended to be a crowd-produced documentary as anyone can contribute. Not every contribution will be integrated to the project, but as long as we continue to receive content, the project will grow accordingly. At this point, we need to decide on which contributions to integrate, how to design navigation through submitted content, how to create a coherent flow and the duration of welcoming submissions. We believe that the participatory nature of non-linear storytelling fits the subject matter of this project as it echoes the diverse opinions of subjects from differing socio-economic, ethnic and religious backgrounds and embraces the multiple perspectives that this project hopes to reveal.

Last but not least, we also present participants the opportunity to get involved in the design process of the documentary in addition to submitting content so that their voices in shaping the documentary interfaces can be acknowledged. Once the initial design is completed together with collaborators, recently received submissions will be included in the already existing design. Thus, recently added submissions will only contribute to the content without making transformational changes in the design structure. According to Sandra Gaudenzi, *Suburbs of Istanbul* falls somewhere between semi-open and completely open documentary genre as the project embraces a certain level of freedom both for the content and design participant to shape the structure of the documentary. We would argue that this new level of agency will make additional contributions to the already existing literature of interactive documentary field. Increasing level of engagement and decision making on the design interface by the participants will make them co-designers. Although user generated content is common in the field of interactive documentary, co-designing the documentary interface itself by means of participatory design techniques makes this project less typical.

METHODOLOGY

During the study, we integrated public into several creative stages of the project such as collecting user generated content for the project as well as making design decisions for interactive interfaces and for non-linear storytelling structure. To this end, first we organized several public workshops at various venues for content collection in order to introduce the project and encourage volunteers to participate by providing photographs, videos and self-interviews as we consider the project as a living documentary. Then, we organized a second set of public workshops for gathering design decisions by using participatory design methods and prototyped interfaces of the interactive non-linear documentary together with collaborators.

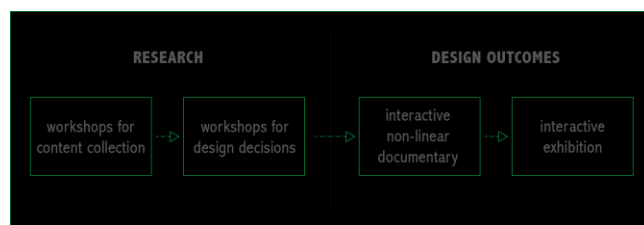


Figure 1. Schema of the research

1- Workshops for Content Collection: Content Workshops

We intended to encourage each participant to not only consume media but also be an active participant and contribute to the narrative by having an opportunity to submit their photos, journals and videos related to their past and present lives for consideration in the project. While the project is not reliant upon story contributions, many of the stories within the project are coming from community members, therefore the content is mainly driven by the participants. Our role is contextualizing the submissions as a starting point and establish-

ing a direction based on the initial contributions. We have been weeding out the unrelated and inappropriate content; conducting further interviews with the participants in response to their submissions; editing after consulting with each participant to ensure the authenticity of the submitted raw materials; organizing a second set of workshops for interface prototyping based on the content collected and making sure that every component works harmoniously. This way of working - leading in a direction based on the initial contributions - allows us to use a more democratic collaboration method with the subjects.

In 2018, we organized six public workshops, each with a duration of four hours, with the aim of introducing the *Suburbs of Istanbul* project and finding enthusiastic volunteers for contributions towards forming the content of the documentary. The workshops were held in different locations of the city to reach participants from a variety of neighborhoods. We divided each workshop into three sections: In the first section, we explained the project in detail supported by successful examples of interactive non-linear documentaries such as *Hollow Documentary* [16], *Ben Istanbul Hikayeleri* [5], *89 Steps: A Chapter of the Living Los Sures Project* [1], *A Polish Journey* [14], *Immigrant Nation* [20], *Prison Valley* [8], *Highrise: Out My Window* [4], *Reinvention Stories* [19] and *Whiteness Project: Inside the White Caucasian Box* [7]. Second section includes basic information about how to take effective footage without the requirement of professional equipment, basic lighting principles and composition. We also provided some tips on conducting successful interviews, as they need to conduct mini-interviews with citizens for their footage. Interview questions, which we determined before the workshops, focused on the profiles of interviewees, their place of living and their opinions about urban gentrification. We provided the interview questions to be asked due to being able to gather consistent and more focused content. The volunteers applied what they had learned during the first 3 hours by practicing hands-on shooting opportunities towards improving their new skills at the end of the workshops.

The participants, recruited through public calls such as social media announcements and word of mouth, were students, homemakers, small business owners (restaurant, cafe, kiosk, bakery) and service workers, almost all of them were going through state-mandated gentrification in their neighborhoods. Participants were given 3 weeks to submit their footage: 32 out of 90 workshop participants provided us the necessary content by the end of this deadline via either WeTransfer or Google Drive. The submitted materials ranged from interviews conducted with family members, neighbors, friends and local shop owners to footage of domestic and public spaces from their neighborhoods as well as photographs from family albums. These 32 individuals with their expansive submissions gave us the green light to pursue the editing stage.

2- Workshops for Design Decisions: Design Workshops

It is important to involve users, in this case interactive documentary viewers, in the design process in order to provide meaningful and relevant experiences to a wider audience. For this stage, we organized two workshops in order to brainstorm about the structure of the documentary by using participatory design techniques. Participatory design is a technique used in design process to develop human-centered, problem solving oriented, innovative ideas. Participatory design is indeed a research, involving users in the design process [22].

We targeted three main groups with this documentary: academics, state and local governments and general public. Our intention was to provide a record of the human perspective of the gentrification process that is beyond statistics and economics. Hopefully this project will lead to beneficial future work for academics and professionals as well as a genuine representation of those who experience the gentrification process first hand. We had 7 participants in the first workshop and 16 in the second one, total of 23 volunteers, adequate sample group for our target groups: 4 academics in digital humanities, 4 sociologists, 7 urban planning specialists in state and local governments and 8 participants represent general public. We recruited such participants as academics, sociologists and professionals with special invitations, and general public via social media announcements and email communications. For general public, we intended to have participants different from the first workshops to avoid biased opinions as well as cultivate a fresh perspective. Last but not least, none of the participants had any design background and none of them were introduced to any design tools. This allowed us focus on only the user needs in flow structure and navigation rather than the design suggestions.

Each workshop lasted about four hours. In the beginning, we explained the project and showed successful examples of interactive non-linear documentaries as we did in the content workshops before. Then, we shared already submitted photographs, videos, interviews and journals to give an idea about the documentary content. Considering our target groups, we divided the participants into three groups based on their professional backgrounds and interests in each workshop and assigned the related user scenario to each group: researcher, discoverer and contributor. Researcher scenario embraced exploration, as academics and state and local governments were interested in detailed information and further insights about residents' opinions. Due to their overall interest in the documentary, general public was paired with the discoverer scenario. Finally, we investigated the behaviors and needs of contributors to facilitate their participation process and to increase their motivation in participating.

This division allowed for identifying and generating various navigation ideas based on diverse user experiences. Some groups prepared very basic hand-drawn sketches and some used their computers for visualizing ideas. After working on proposals based on user scenarios and already identified user experiences, each group was asked to make a presentation of

their proposal to the other groups for further brainstorming. This stage of presenting ideas and brainstorming led us to frame the discussions among the participants. Workshop results and lessons learnt are explained together with the interface prototypes below.

INTERFACE PROTOTYPES OF THE INTERACTIVE NON-LINEAR DOCUMENTARY

Involving users to actively participate in the decision making process of prototyping the documentary besides contributing to the project with their own stories leads to a more human-centered interactive storytelling experience. Interactivity in documentary provides a more intuitive and free navigation compared to linear flow, as audience have the chance to spend more time on the content of their choice. It offers chances of skipping and selecting the content in a limited number of pre-determined possibilities for viewers. Therefore, the interaction model used in this documentary is considered as active-adaptive in which conscious user input directs the navigation [9]. Moreover, interactivity communicates the messages and emotions attached effectively by directly involving the audience in the flow of the documentary.

The way of message communication and navigation model of the documentary interfaces were prototyped based on the results of content and design workshops. The structure and flow of documentary are explained together with the outcomes of design workshops. Overall wireframe of the interface flow is shown in Figure 2.

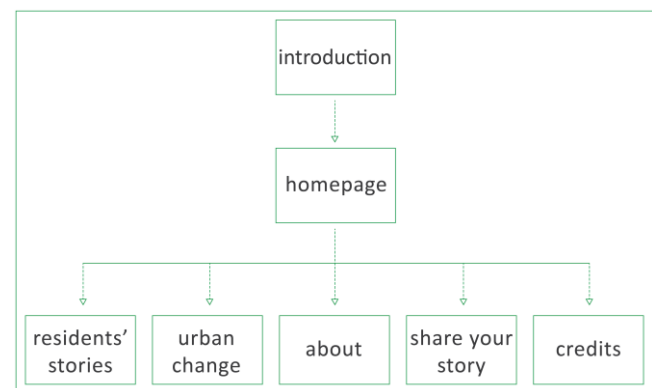


Figure 2. Wireframe of Interface Flow

The documentary starts with an introduction (Figure 3) that includes general information about urban gentrification in Istanbul: how the neighborhoods are transformed, how the urban fabric is changing, and how the residents are affected. This introduction part includes both infographics and videos in order to emphasize the transformation within the city as well as reveals the positive and negative effects on residents' daily lives. This part of the documentary proceeds with the mouse scroll; thus, it gives the chance to stop, move back and forward based on the pace of each viewer.

This prototyping with an interactive navigation results from the contributions of the design workshop participants, as there was a consensus between all user groups for the need to

have control over content when viewing the videos. Also all the workshop participants were interested in proceeding faster with the content of their choice rather than going through the information that was irrelevant to them.



Figure 3. Introduction Page

Homepage (Figure 4) consists of the urban fabric; providing a visual representation of the current status of the city with the buildings and residents presented together on the same platform. This section also includes a menu display such as *about*, *share your story* and *credits* pages and a language selection bar including Turkish and English. In short, the homepage basically provides access to the pages of *residents' stories*, pages related to *urban change*, *about*, *share your story* and *credits* pages, and language selection. Based on the feedback received from the workshop participants, the homepage is prototyped in a simple way with limited functions in order to keep the user interest level high without overwhelming and confusing them.



Figure 4. Homepage

The first page of residents' stories (Figure 5), reveals all residents together, indicated by graphical representations aligned with their satisfaction of the neighborhood transformation process. The reason why interviewed residents are placed according to their satisfaction level is to provide an overall

idea about sociological aspects of urban transformation since especially the researcher group members in workshops stated that knowing this information is significant for taking steps in their future studies. When the mouse is over the graphical representations, the names of the interviewed residents appear. This design decision is based on the feedback received during the design workshops: to allow the audience internalize residents' situation.

When the graphical representation is clicked, interviews and the footage of the diverse neighborhoods and various domestic spaces occur (Figure 6). Based on the topics and subjects presented during the interviews, cluster of neighborhoods, topics or headlines that the interviewees mention

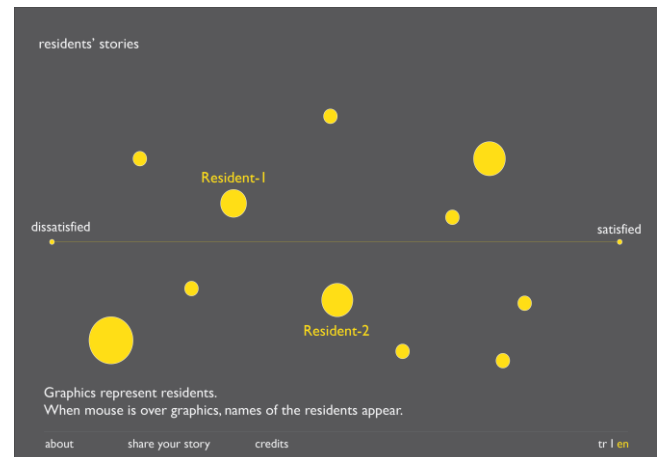


Figure 5. Residents' Stories (First page)

also appear on the site. These are all clickable; leading the audience to the other residents' ideas on the topic mentioned or allowing them to witness the transformation of the neighborhoods. This visualization not only emphasizes the headlines of the interviews but also offers fluent transition between pages.

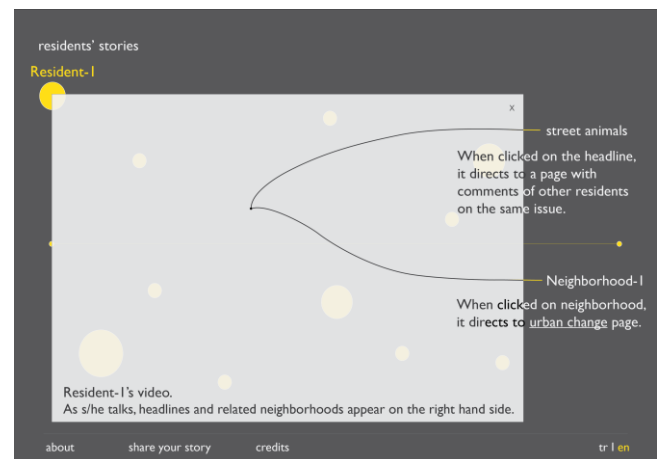


Figure 6. Residents' Stories (Second page)

When clicked on a topic, it directs the user to the page where various residents state differing opinions on the same issue. (Figure 7). Additionally, when clicked on a resident's footage

on a specific issue on this page, it automatically starts from the beginning of the video thus providing viewers flexibility of continuing with the topic of their interest. Feedback received at the design workshops revealed participants' preference towards having access to various comments on the same issue successively. Both researcher and discoverer groups agreed on the necessity of this feature. Departing from this, we prototyped this transitive design option in a way so that the users stay focused on a specific subject with more fluent navigation. As a result, users will have the chance to learn more about the topics or neighborhoods that they are interested in without getting distracted with so many different comments.

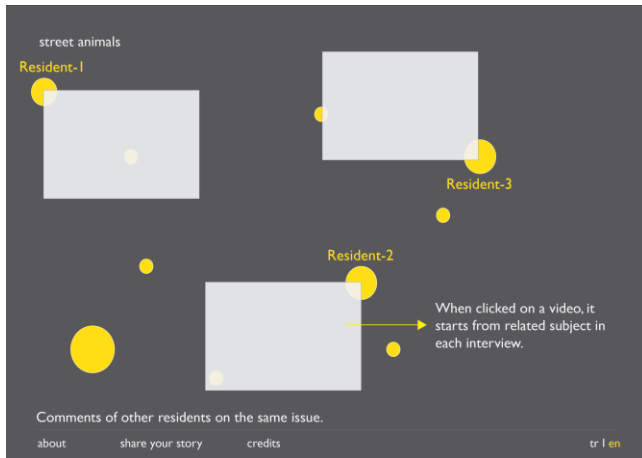


Figure 7. Residents' Stories (Third page)

A map of the city emphasizing the neighborhoods that are currently in transformation is available for the audience when clicked on the buildings on the homepage (Figure 8). In this page, two filtering options are provided for neighborhood selection: according to location and name.



Figure 8. Urban Change (First page)

When clicked on a neighborhood either its location or its name, that specific neighborhood's location on the map together with its residents is revealed (Figure 9). At this page two options are offered; clicking on a resident or on the

neighborhood. When a resident is clicked, it directs to residents' stories page. If neighborhood is selected, a timeline of photographs representing that particular location displays various eras from past to present (Figure 10).

As the cursor moves, photographs change accompanied by a continuous construction noise in order to emphasize the urban transformation also from the sonic perspective, as soundscapes are integral part of daily urban life [24]. Audio support enhances the internalization of the situation of being exposed to continuous urban transformation by augmenting disturbance from a sonic perspective. In design workshops, participants stated that they would prefer to experience how the city has been transforming by witnessing the rapidly changing urban fabric with *before* and *after* visuals.



Figure 9. Urban Change (Second page)

Thus, we prototyped this interface where audience can observe the urban change by moving the timeline cursor. In addition to visual transformation, we decided to include the sonic dimension of this process for a holistic experience; since several buildings are being demolished and new ones are being built which produces a continuous construction soundscape that is embedded into urban life. Therefore, this holistic experience truly captures the human experience.

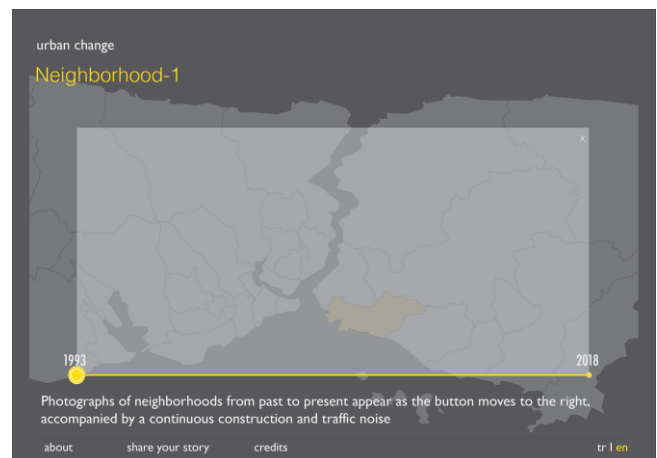


Figure 10. Urban Change (Third page)

The *about* page introduces the project. The *Share your story* page includes recommendations and guidelines on content creation: how to record and submit content, how to conduct interviews, which questions should be asked as well as recommended duration and the format of video files, and also welcomes new contributions from new participants through a submission interface. In the workshops, groups focused on the contributor scenario underlined the need for specific information about requested footage. They also stated that learning tips on shooting and conducting interviews would be beneficial in content production as they are not professionals. And finally, the *credits* page includes the names of all contributors.

Lessons learnt from design workshops can be summarized as follows: users prefer simple, on point, direct interactions and avoid overwhelming interfaces; users want to have control over navigation allowing them to spend more time on the issues that they are interested in and skipping those that they do not really pay attention; users may have different navigation choices due to varying interests, and they also want to reach the content that they are interested in as easily and quickly as possible. Therefore, interface prototyping is designed with the main aim of keeping users' interests at a maximum level for an extended period of time.

DISCUSSION

In this interactive non-linear documentary, which focuses on human aspects of urban transformation in Istanbul, our intention is to present the opinions and stories from residents' perspectives directly by reducing the subjective intervention of the producers to a minimum. Moreover, we intend to convey messages and emotions effectively to a wider audience with effective navigation and interactive design features by analyzing and understanding user needs better. For the reasons aforementioned, we organized several workshops to involve public actively in both the content creation and the interface prototyping processes. While our intention is to create this documentary from the perspectives of the residents in terms of content, there is still some guidance and interjections from the authors as interview questions and video shooting techniques are introduced to them at the workshops. Furthermore, still the submissions are edited (post-production) and curated by the authors. Similarly, navigation structure is prototyped based on participants' suggestions, however final decision on the graphics and the visual design of the documentary are concluded by the authors. Thus, this project will result in a participatory interactive documentary with maximum public contribution and minimum author interference acknowledging these minor interruptions.

Regarding the content, gathering videos from public has been successful so far: diverse resident profiles including students, homemakers, small business owners, service workers, physicians, educators, etc from a varying range of middle and upper-middle class neighborhoods. Technical parameters and interview styles also differ from contributor to contributor, which enriches the documentary. Our editing is done in a

way to remain authentic to the submitted footage by getting feedback along the way from the creators of the videos before publishing. The content projects the variety of opinions as well as differing socioeconomic, religious and educational backgrounds of the residents whose lives are directly affected by the urban transformation. Since content has the priority, all the submitted videos that are related to urban transformation, regardless of the aesthetics and formal qualities are included. Furthermore, the project will remain open to contributions after launching. Recently submitted videos will be first evaluated according to the relevance and appropriateness and then will be edited for inclusion.

Regarding the interactivity, users prefer having control while navigating the content flow as observed in the design workshops. Presenting narrative data through an interactive interface makes audience engage with the real-life stories within the documentary. According to several filtering options applied in the prototype, users will have the opportunity to decide how to proceed within the documentary: either by choosing interviewed residents or by choosing neighborhoods in transformation (homepage) and in urban change page, either by selecting the location or the name of the neighborhood. This flexibility, offering options at certain stages, provides an effective engagement for the audience while following the content. Building a clear structure of information supports engagement and facilitates navigation through the content [18]. Also, transforming oral information into visual categories and linking them with other related sources provide a transitive and fluent navigation which enhances the experience at first hand and helps the audience stay focused. This way the audience is introduced to create paths according to their interests within the documentary. In order to provide a more immersive and realistic experience, the visual interfaces are supported with related audio. For example, the disturbance due to urban transformation is emphasized also from the sonic aspect in addition to visual one. This result can be supported as interactive experiences need to be evaluated from a holistic perspective and other dimensions deserve to be considered together with visual aspects in order to enhance engagement [15].

Involving participants into decision making of prototyping process and forming different user scenarios played a significant role in understanding the user needs better and in brainstorming for further enhancements. Although participatory filmmaking and exploring effective ways of communicating messages with participants (from producer's perspective) are not new topics, integrating participatory design technique into the design process of the documentary, and shaping the interfaces and the storytelling structure together with participants (from user's perspective) are still rare in interactive documentary field. Co-designing leads us towards a more human-centered interactive participatory non-linear documentary, which contributes to the existing discussions about the interactive documentary field. This project allows us to mainly explore how to produce an interactive documentary from a designer point of view and discuss the outcomes of

integrating participatory design technique into the production process of the documentary. We hope that our experience inspires those filmmakers, producers and researchers who are investigating forms of involving participants into structural design.

CONCLUSION

Suburbs of Istanbul is a new interactive documentary project, which presents narratives and experiences of Turkey's ethnically and economically diverse population who are moving to suburbs at a speedy pace due to government-mandated urban transformation. The real life stories of suburban residents of Istanbul are brought to life for the outside world to witness the storytelling experiences. Visitors to the website take small steps to explore various suburban neighborhoods and their surrounding landscapes. Viewers discover what happens in these environments, and hear the stories of individuals and families reflecting their past lives and the reasons why they choose to live in these suburban neighborhoods. Accessibility of the project through the web will generate a greater international audience.

This interactive participatory documentary proceeds in a non-linear fashion offering the audience freedom to navigate content on their own pace as well as embraces new techniques and strategies towards creating a more democratic use of documentary practices. As the creators of this project as well as the authors of this paper we are committed to involve public actively in each creative step of the documentary. The stories were collected directly from residents with the aim of projecting intimacy and authenticity. The interface prototypes were shaped by user preferences, which were identified at the participatory design workshops. Co-designing the documentary together with users makes this project rare in the field of interactive documentary, and leads to a human-centered documentary design.

Suburbs of Istanbul, will be launched in Summer 2020 and will continue to welcome submissions to enrich its content. This documentary lays a background also for designing spatial interactive experiences, which will be co-designed with users as well. Integrating VR/AR technologies for making visitors internalize the residents' situations or using locative media for experiencing urban fabric during transformation would be an interesting future study. Therefore, it provides a more immersive and engaging experience in generating widespread awareness of issues surrounding suburban lifestyles throughout Turkey and across the world, and in encouraging conversations and efforts to plan for the future.

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