Madeira Story Generator: Prospecting serendipitous storytelling in public spaces

Valentina Nisi [a], Clinton Jorge [b], Nuno Nunes [a,*], Julian Hanna [b]

[a] Madeira-ITI, University of Madeira, Funchal, Portugal
[b] Madeira-ITI, Funchal, Portugal

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ABSTRACT

In the light of the increasing adoption of participatory culture means by general consumers, this paper describes the design process, evaluations and discussion on four studies on public interactive storytelling system addressing findings and limitations in regards of its participatory nature. Previous bodies of work within interactive artworks and public displays cite difficulty in attracting passersby attention. Through an iterative design process and refinements to the storytelling concept, we advanced our experience of the mechanics of digital storytelling' and passersby engagement within each space studied. This paper aims to share our research highlights, encountered difficulties and how the applied evaluation methods stood up to the task within public spaces that aren't as easily accessible for research, such as airport terminals. Our findings further seek to go beyond a traditional technology-centered approach while examining the relationship between individual, object, and public spaces.

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1. Introduction

As, our culture absorbs and responds to the explosion of new media technologies consumers are enabled to archive, annotate, appropriate, and recirculate media content in powerful new ways. This shift is named by Jenkins participatory culture [43]. However, focusing only on expanding access to new technologies is not enough, we also need to foster the skills and cultural knowledge necessary to deploy those tools toward our own needs, from desires, and enjoyment [43]. Jenkins suggests that creative activity is shifting from the production of texts or the regulation of meanings toward the development of a dynamic environment where room for interpretation and improvisation is built into the media. Moreover the media landscape is being reshaped by the bottom-up energy of media created by amateurs and hobbyists. Jenkins [44] calls this shift toward a more inclusive production process cultural convergence, fostering a new participatory folk culture by giving average people the tools to archive, annotate, appropriate and recirculate content. This increasingly participatory culture is supported or fueled by the widespread proliferation of networked personal devices and Internet connections in the home and in public spaces [45].

However, public spaces are notoriously complex ecosystems. Designing experiences in public space to suit a wide variety of audiences can be a very challenging process. When designing for public spaces, location plays a crucial role. For example, transportation terminals may provoke feelings of reminiscence and nostalgia – arriving in a new country, starting a new experience or an adventure, or watching loved ones arrive or depart. In these busy or crowded public spaces designers are faced with several challenges, such as attracting passersby glance towards public displays or installations and enticing interaction. Researchers have defined this negative reaction to public displays as display blindness [30], i.e., when people have a preconceived expectation of uninteresting content and hence ignore the display, and display avoidance [22], where passersby notice the display but then quickly look away, actively avoiding the display. Nevertheless, as digital displays become pervasive, and the underlying technology becomes ubiquitous, these displays present both opportunities and challenges as a new communication media and tool for reflection in public and semi-public spaces. Over the past few decades many artists and researchers have experimented with public displays in order to probe and explore new channels for artistic expression, in particular the sharing and co creation of text and experiences, often in the form of stories [4,43].

Stories and storytelling are pervasive and ubiquitous. Storytelling is a creative process through which people share and reflect on life experiences, solve problems, or teach lessons

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* Corresponding author.
  E-mail address: njn@uma.pt (N. Nunes).

[19,39]. Stories were considered central to society long before humans could read and write and are a fundamental component of human experience. They perform a critical function in society, allowing for dialog between people, culture, and time (c.f. [24]). Storytelling began as an oral technique, developed and matured as a written art form and in recent decades worked its way into the complexity of digital media and devices. Moreover, as our lives become increasingly mediated by technology and governed by hectic deadlines and routines, causing increased stress and anxiety [8] some of us respond by seeking wonder [34] to escape the limits of everyday reality. Fictional stories represent one way of achieving this escape by immersing ourselves in imaginary worlds [33].

Public spaces have played an important role in the history and traditions of storytelling. In the past, storytellers would perform their craft in public spaces in order to capture wandering audiences to listen to their stories (some still do). In sixteenth-century Italy, for example, the Commedia dell'Arte delivered its improvised performances based on stock stories and character types in the form of street theater, with the performers playing outdoors on temporary stages erected for the occasion [37]. Still today many Irish storytellers following the seancha (or "shanachie") tradition move from village to village to tell their stories to a public audience, performing in public houses and village squares to whatever crowd they can gather [42].

In this paper we present the iterative design process and findings generated by the Madeira Story Generator (MStoryG), an artistically inspired interactive storytelling installation. MStoryG builds on Bolter and Grusin's concept of Remediations, looking at how every new medium diverges from, yet also reproduces, older media, whereas old media refashion themselves to answer the challenges of new media [46]. Deployed at four distinct public and semi-public spaces over the course of a year, MStoryG employed an obsolete Solari Udine mechanical split-letter-flap display – previously used to display flight information at an international airport – as a storytelling narrator, while further allowing passersby to subvert this once authoritative "entity". We iterated the installation refining its design as an interactive storytelling device aiming to understand audience engagement and enjoyment challenges. In Section 5 we present the iterative process In Section 5 we present with a focus on the largest deployment of MStoryG, at the arrivals terminal (passenger baggage retrieval area) of an international airport. This paper focuses mostly on this deployment since it was the final of three themed studies. A final experiment was conducted in a fourth location, the entrance of our research institute, where MStoryG is currently being employed as a multipurpose public communication board. Through public experiments, our on-going research has allowed us to explore and identify several challenges regarding interactive art and participatory content, as well as general challenges with public displays. Finally, we present our observations and findings as well as our experience in designing, deploying and evaluating a public storytelling installation that evokes ambiguity and reminiscence as a trigger for engagement. Derived from our studies we distilled a series of insights and guidelines for the benefit of future researchers in the field.

2. Related work

In this section we present previous relevant research grouped under three main fields of study: interactive digital storytelling, public spaces and interactive public displays as well as audience participation in interactive artworks. We review the literature highlighting challenges and achievements as well as identifying the research foundation for MStoryG in our digital-age storytelling and participatory culture. Finally, we introduce previous research focusing on airport visitor experience [3] and the growing ubiquity of art installations within airport terminals.

2.1. Grounding digital-age storytelling

Storytelling has come a long way since its early oral, handwritten and even print forms. With the ubiquity of the Internet and the rise of blogs, podcasts and social media it has become increasingly possible for storytellers to reach a broad, diverse audience. An increasing number of Internet-based projects and web sites elicit content from members of the public. Typically these sites provide a focus for the recording and sharing of memories about a particular topic [37]. For example, the BBC's People's War[1] encourages site users to recall their experiences during the Second World War, while Moving Here[2] was designed to record and shed light on 200 years of migration to England. Moreover, the project: 24 Hour Museum's City Heritage Guides collects story contributions from various communities of UK cities, relevant to their locality. StoryPlace [46], on the other hand, started as a desktop-based story sharing system between elderly and their younger relatives and ended up using location-specific technologies as pretexts to involve a larger crowd of story contributors, where professional writers came to take on most of the storytelling role.

More recently projects such as Tim Burton's remediation of the surrealist *Cadavre Exquis* and The Novel Iowa City Project [23,5], for example, employed the Twitter social network for community-based writing projects, to crowdsource story segments from public contributors in order to collectively author a story. Social media, such as Twitter or internet-based sharing systems, are well suited to take on the challenges of participatory storytelling, and the above mentioned projects show us how. We looked at these projects to get inspiration on how to entice audiences to participate to the sharing challenge of crowdsourcing story content [24] or providing a focused theme [47]. More over some project also highlighted the importance to mediate the user generated content [47].

Over the past few decades many artists and researchers have studied or made use of public displays in order to explore new modes of creating and sharing stories. For example, the artist Candy Chang invites communities to voice their hopes and ideas on shared public canvases. Her projects range from Post-it size public notes to huge community blackboards that entice passersby to fill in the blank in the sentence: "Before I die I want to ..." [7,13]. Chang represents a recent example of how artists invite broad public audiences to participate in storytelling and other creative activities and thus become authors themselves.

To cite another example, the artist Jenny Holzer has repurposed multiple public displays in her career in order to convey thought-provoking and often ambiguous messages. Holzers' work invites curiosity and seeks to generate discussion through the manipulation of familiar public displays and their content. Her "Truisms" (e.g. "MONEY CREATES TASTE" or "PROTECT ME FROM WHAT I WANT") have been broadcast on several such displays, including the Spectacolor electronic signboard in Times Square (1982) and the Dallas Cowboys Stadium video board (2012). In the exhibition Terminal 5 (2004), Holzeras messages appeared on an LED departures screen in the disused TWA Flight Center at New York's JFK [41]. While highly successful as art pieces, and inspirational for our work, neither of the above projects by Chang and Holtzer [41], have been subject to an evaluation process in order to generate insights and learned lessons for future research in the field. We took this at heart and set to design and analyze users reaction to our public storytelling display, in order to be able to share our findings with our research community.

Storytelling innovation depends both on the medium and the content [18], as well as what context-specific cues (e.g. cues