Emerging media practices with the Displr platform for place-based engagement

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Place-based communication

Place-based communication is about contextual messages delivered at specific locations where certain types of people congregate for particular purposes. In a world of digital overload and media fragmentation, digital place-based communication is emerging as a major trend because of its unique capability to promote social coordination, place-making and behaviour expectations in public venues. For individuals, it can constitute an opportunity to channel personal creativity and self-expression. For venues, such as stores, coffee houses, restaurants, schools, libraries, clinics or shopping centres, it constitutes an opportunity to reach their visitors in more meaningful ways and orchestrate events where the experience becomes part of their services.

A successful approach to place-based communication should explore the whole ecology of personal and public devices that characterises most public places, including static and interactive screens, laptops, tablets and smartphones. Large screen displays are essential because of their unique capability to expose their message in a contextually relevant way, break personal filter bubbles, act as focal points for shared experiences between co-located people and bridge the physical and digital layers of place. However, public displays are normally conceived as media delivery points for centrally created content and they work as closed systems that require a considerable and specific media planning effort. When done in-house, these projects often fail because of the significant expertise and effort that are needed to actually make them work. Even worst, they lack mobile interaction, which is also essential for place-based communication. Mobile interaction can greatly amplify the communication supported by displays and lead to a much more meaningful connection with place visitors. The mobile channel is thus essential because of its interactive capabilities and its direct connection to users. However, when used in isolation it lacks the ability to trigger engagement at the right moment. Without the place-based triggers that can be offered by public displays, people are not likely to invoke mobile applications and take the initiative to engage. Even if they did, it would be a largely individual experience that would not congregate people around a shared locative experience the same way a public display does.

When used in isolation, none of these channels is able to offer the richness that spans from cross-channel communication and each of them will be adding its own additional IT complexity and management effort. Also, dispersion across many partial solutions leads to a fragmented engagement space that dilutes the potential benefits of place-based communication. As a result, and despite its obvious potential, digital place-based communication remains beyond reach for most organizations. While social media and mobile are now mainstream and an integral part of communication strategies, place-based communication remains a complex and laborious undertaking that can only be accomplished with custom, expensive projects that are hard to understand, appropriate and sustain.

The Displr platform

Displr is a place-based communication platform that enables venues to reach their visitors more effectively by easily combining screen displays, social media and mobile engagement. Displr empowers any venue to create and manage a targeted, smart, cost-effective, interactive and cross-channel medium, without the need for external expertise or time consuming tasks.

In Displr, displays are created and managed as part of local media spaces, called spots. A Displr spot represents a symbolic location, or place, and is normally also a specific physical setting. The main role of a spot is to act as a shared context for people, screens, interactions, resources and applications, bringing them all together under a single shared media environment.

Once a spot is created, it is then possible to pair screen displays, which will automatically get their content from the media space defined for that spot. Unlike Digital Signage, this is not meant to be a professional content management tool with fine-grained control of visualisation and complex timelines. Instead, it is designed to be simple and yet empowering for users with only basic digital skills who do not want to spend much time micro-managing content. Users just need to add content elements to different priority levels and the system will then take care of delivering this media to the different channels, i.e. public displays and mobile.

Displr uses display applications and programmatic content to automate content selection and presentation. Displr apps are web-based applications that run in direct association with each display and encapsulate all the smart behaviour that is needed to access, present and interact with particular types of display media. The use of web technologies enables rich and adaptive content for public displays to be created using existing expertise on web development and common web development tools and technologies, such as HTML5. The specific set of content types that can be added to a Displr spot is directly connected with the set of applications subscribed by that spot and can easily be extended through the creation and publication of new apps.

With the Displr mobile app, any user can check-in to a Displr spot and enter a shared media space that spans across large public displays and personal mobile devices. Any content shown on the displays is immediately accessible on the mobile. This way, content is no longer locked inside the displays and users are no longer just passive viewers of the information shown on those displays. They can interact with any media on the display and share their own media. Because this content is actionable, users are able to conduct multiple types of social actions on the content exposed by the displays. Interaction becomes a feature by design that can always be assumed to be available for any media on any display, and not just on expensive display installations.

Displr is conceived to become a game changer with the capability to substantially change the way we understand place-based communication. A disruptive productisation approach enables Displr to offer, as a product, functionality that before could only be accomplished with custom services. A new Displr spot can easily be created through a systematized process, in many ways equivalent to the creation of a Facebook page, and which most place owners will be able to do by themselves. Still, each spot will be a unique representation of the local media space. This adds scalability to locative media and paves the path for the generalisation of place-based communication.

Another key disruptive property is the application of the principles of the sharing economy. The rational behind the sharing economy applies very strongly to large screen displays. On the one hand, displays may represent a significant investment for a small venue, but they are likely to be an asset that is not fully utilized all the time. Communication needs may be reduced or vary substantially and quite often venue owners have less relevant content to present than they have available display time. On the other hand, many of those venues can represent high-value communication opportunities for some other third-party. For example, a beverage brand will have a major interest in being present at cafés that are points of sale for its products. A University may want to reach prospective students when they are at their schools. By allowing display owners to share the communication value of their display with selected content sponsors and advertisers, Displr will be able to create a global marketplace for highly contextualised display time.

These properties can make the Displr platform a huge opportunity for the Creative Industries, as it opens the path for a new communication medium. While locative media has been widely explored before, Displr offers a unique opportunity to explore locative cross-channel media in large scale. New applications can be created and be used across an open-ended set of Displr spots. City-wide initiatives may leverage on the local spot infrastructure to reach citizens in new ways. Marketing communication may be much more effective by being at points of purchase. There is thus a huge potential for exploring this new medium to create innovative communication concepts and Displr is fully open for any collaborations that may help to explore these exciting new possibilities.

A case study on emerging media sharing practices

To understand some of the new possibilities and implications of place-based communication, we have conducted a study on publication practices in place-based displays. A key implication of place-based displays is that a significant part of their content may be created at the display location and specifically for that display. We hypothesize that in a world where place-based displays would become the norm, rather than the exception, displays would be strongly situated and appropriated for much more locative, occasional, creative and mundane goals. Display content could then evolve towards the same levels of creativity and informality that are now common in other channels, such as social media.

To study this possibility, we analysed content and usage data from an anonymised dataset that includes the media creation activities of 35 displays in the Displr platform. Venue owners could post their own content in the form of text/image posts and they could repurpose existing content by integrating relevant external sources, such as Facebook, Instagram or Dropbox folders. The 35 displays covered by this study were mostly in schools, but there was also 1 library and 4 different locations at one University. The study covers a period of 10 months. However, since displays were being deployed throughout this period, the time range associated with each of them varies between those 10 months and just a few weeks.

There are multiple reasons why this dataset is a particularly valuable source for our research goals: 1) these are operational displays in daily use at the respective venues to serve specific communication goals. They were not deployed for research purposes and our research did not include any content creation or even any contact with the venues involved; 2) display owners were not driven towards any particular usage of their display and had full control over the publication process; 3) these displays were autonomously operated by many independent entities without any specific connection between them. The geographic dispersion is very high and most display owners were not even aware of each other.

The data itself is largely composed by the meta-data associated with 705 display posts created at the 35 displays and the screenshots of 573 (81%) of those posts. The meta-data includes the publication parameters of the display posts and an anonymous id of the respective venue. The screenshots represent the actual media created by the display owners as it was shown on the displays. They had no uniquely identifiable information that allowed us to associate the screenshots originating from the same display. To support the analysis of this qualitative part of our data, we applied a coding process based on a Grounded Theory approach. The study data also includes the external sources that were explicitly added to the displays.

The first dimension in our study was to understand how the displays were appropriated for local purposes. Based on content analysis, we have observed that themes that are more naturally situated, such as local activities, announcements and events, were indeed the most common, accounting for 57% of all the content posted on the displays.

The second dimension addresses the media publication practices and particularly the perception of the display owners on what would be appropriate content to go to the public display. Display owners could create their posts, with each post being composed by a text, an image or a combination of both. Image posting, most of the times with some text title, was the most popular. However, 6% of all posts were text only, which seems to go against all common rules on how to create proper display content. These display owners were not careless about their displays, but they seemed to have perceived significant value in the possibilities offered by more spontaneous communication.

Another dimension in this study was the time scope during which display media was relevant. The results seem to confirm the transitory nature of much of the content and particularly text-only posts. From a total of 34 of these text-only posts, 10 were published for a single day and 18 were published for only a few days.

The last dimension of our analysis considers situatedness embedded in the content. We coded the screenshots to describe how contextual information about authorship, location and time was represented in the content shown on the displays. More specifically, we were trying to register if the information was missing, if it was represented in an implicit way, or if it was explicitly included as part of the content. The results suggest that display owners were aware that they

would implicitly be perceived as authors and therefore only 133 (23%) of the posts had explicit information about the author. Similarly, location context was often implicit. Again, display owners seem to have assumed that including explicit location information would be redundant for their content, as this was created and shown at a single location. Most explicit locations were part of posts announcing events at other locations. Time was the only dimension where explicit information was more common that implicit information. A distinguishing property of time is that it does not require a change of location to lose context. As time goes by, any implicit form of time information will lose its meaning.

Regarding the explicit integration of external content sources, display owners integrated 178 sources. Even though there were no limitations to the number of sources, 90% of the displays integrated 6 external sources or less. From the total of 178 sources, 140 were unique, and 123 were only used once on a single display, which is also a good indication of situatedness. Regarding the nature of the sources, Facebook (52) was the most popular one, with display owners explicitly adding 52 unique sources to their displays. The other external sources were YouTube (33), RSS (26), Facebook Albums (21), Twitter (19), Instagram (17) and Dropbox (10). This confirms that external sources can play a key role in keeping the displays running with continuously updated content and highlights the value that open approaches can bring to richer uses of public displays.

Overall, these findings suggest that, with place-based displays, publication practices tend to be less formal and much more situated than what is now common in most display networks. This suggests that the possibility to appropriate the medium is highly valued and may prompt for more situated and spontaneous forms of communication. This might confirm the expectation that display systems may evolve towards becoming a medium that is open to new forms of self-expression, appropriation and Human connectedness. While previous work has already produced many specific instances of place-based displays, this work also shows how place-based displays can be created and managed in large scale to support many diverse and locative forms of digital creativity. We expect this contribution will ultimately lead to a scenario where the uniqueness of the media associated with each place will be shaped by the creativity and the work of many.