## Art Mapping in Paris

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#### Abstract

In this work, we describe a proposed technology demonstrator for Art Maps, a collaborative research project exploring the relation between artworks and the location that they depict, through the support of a cloud-based crowdsourcing platform with web and mobile interfaces. The Art Maps demonstration entails two types of hands-on experiences for the conference attendees: an in-CHI-experience and an optional bespoke outdoor activity to experience Paris through Art Maps.

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## General Terms

See list of the limited ACM 16 terms in the instructions and additional information:
http://www.sheridanprinting.com/sigchi/generalterms.htm Optional section to be included in your final version.

## Introduction

Art Maps is a collaborative project involving a multidisciplinary team from Horizon Digital Economy Research (University of Nottingham), Tate (Tate Learning, Tate Online and Tate Research) and the Centre of Intermedia at the University of Exeter. The project explores the relation between artworks, the location that they depict, and the use of mobile technology.

Approximately one third of the Tate Galleries collection, comprising almost 70,000 artworks, has been indexed with information about locations, typically the site represented in the work. For some artworks this information is quite specific (e.g. exact latitude and longitude of the landmark/sight depicted in the work), but in many cases it is quite general, referring only to a city, region or major geographical feature (e.g. latitude and longitude of the city, but not of what is depicted in the work). So, for instance, many artworks representing different landmarks in Paris have all the same geographic coordinates, because they have been just indexed as 'Paris'. The Art Maps project aims to improve the quality of the geographical data relating to these works, with members of the public contributing information (e.g. more precise geographic coordinates), as well as to gain new insights into how people use mobile technology to generate novel location-based interactions with their environment through art, and with art through their personal histories (e.g. why they know that location, and what they know about).
To address those aims, a cloud-based crowdsourcing platform with web and mobile interfaces has been developed that uses a process of semi-structured blogging to capture location information as well as users' experience. Tate artworks (indexed with specific and non-specific geographic information) are displayed on the Art Maps map, and users are encouraged to browse the Tate collection or search for a familiar location (e.g. hometown, holiday destination), then to look at the artworks and, if they


Figure 1. Search of 'New York' in the Art Maps application
recognize the landmarks depicted, to refine the artworks' location (Fig. 1). The users can also blog and share personal content (e.g. photos, comments, audio) related to the artworks, the location, etc. (e.g. a photo representing how is the area today). Those user-generated-contents can be captured by the Art Maps platform and geographical information extracted whilst starting a conversation between users.

## Background

In 2012, two public engagement events took place at Tate Britain in London. While wandering in the area between Tate Britain and Tate Modern, participants were prompted by the Tate facilitators (e.g. through phone texts, agreed tasks) to browse the Tate collection and the Art Maps map, as well as to use their mobile phones to document, edit, record and create en route content, to refine artworks' location, and to share online their art-driven journeys.

The participants of both events underlined that the experience supported new ways of 'interacting' with a familiar area, as well as generated novel online and offline conversations on art, local history, and personal memories.

The promising results of the two events suggest a value for involving digital audiences and designing ubiquitous activities, which can be experienced by individuals, schools, families wherever they are. They also support that the Art Maps platform can be used as 'pure' crowdsourcing system, as well as public engagement tool.

## The Art Maps system

The mission of the Art Maps platform is to support two activities in a way that requires minimal management by a system administrator. These two activities are:

- Support for crowd-sourcing geographic information (latitude and longitude) about an 'object'. The 'object' is a place-holder for any object, physical, digital or imaginary, that the crowd-sourcing administrator wishes to gather geographic information about. In the case of the Tate Galleries instance of Art Maps, 'objects' are artworks and artists.
- Support for tracking user interaction with the system and activities undertaken by the users through blogging. Users are encouraged to use their own blogs to write about their activities, the core system provides a centralized place to keep track of all of these blogs.

The core Art Maps platform is a cloud-hosted service (Microsoft Azure) backed by an SQL Azure cloud database. In keeping with the minimalistic design philosophy this service provides very little more than storage with an application programming interface (API) for programmatic access to stored data. The core platform is intended as a light-weight add-on for existing platforms to enable them to support the above activities.


Figure 2. Blog post by a participant inspired by a Tate artwork

In order to track distributed Art Maps related activities, standard protocols related to blogging, such as RSS feeds and Pingbacks and Trackbacks, are implemented This method of notification requires little to no action on the part of bloggers to interact with the Art Maps platform.
An example user-interface is provided in the form of a WordPress plugin. WordPress itself is used to provide standard web features such as publishing and userauthentication. The plugin provides a way for WordPress to communicate with the Art Maps platform core as well as an example mapping interface. The plugin is not intended as a one-application-fits-all-use-
cases piece of software but as an example and base platform for developers to build on.

## Details of the deployment scenario

The demonstration, within CHI Interactivity 2013, entails two types of hands-on experiences for the attendees: an in-CHI-experience and an optional bespoke outdoor activity to experience Paris through Art Maps.

In-CHI-experience: The demonstrator will consist of a large communal display (TV screen) that will display a map with a real-time feed of conference attendees interactions with the Art Maps demonstrator. Conference participants will be called to use the Art Maps mobile and/or web interface, searching a location on the map or a Tate artwork through keywords (e.g. boat, Monet, Seine, red). For instance, they will be invited to look for a familiar location on the Art Maps map (e.g. hometown, holiday destination, the city where they work, etc.), to select an artwork and then to pinpoint it in the Art Map displayed (Fig. 1), thus contributing specific geographical information on that artwork. They will be also invited to share personal comments on the location and on the artworks.

Outdoor-activity (optional): On the basis of the engagement design that we experimented during the two public engagement events at Tate Britain, we will design a bespoke experience to creatively visit Paris, and relate physical sites and those represented in the artworks. Over 200 artworks of the Tate collection represent Paris somehow (e.g. Place de la Concorde by Joseph Mallord William Turner). We will select some of these artworks, representing well-known sites (e.g. Notre Dame) and design a location-based journey. Conference attendees will download the Art Maps application (for i-phones) or use the web one on their mobiles/tablets, and will be prompted to explore Paris in relation to the selected artworks. For instance, they will be asked to look for (by keyword or location) the work of Paule Vézelay 'Le Pont Neuf, Paris', while they
are visiting the area of the Louvre/Ile de la Cite', and to try to refine the location of the artwork on the Art Maps interface.

## Conclusion

Art Maps project calls for contributions not simply to enrich geographical data, but also to explore alternative ways of using digital resources, at least in art and humanities. In fact, a priority of digitisation agendas (e.g. JISC Rapid Digitisation and Enriching Digital Resources programmes, EU portal Europeana) is to create new forms of public engagement through digital assets. In the research library and archive sector, it is reported that at least $£ 130$ million of UK public money has been spent in digitisation in a decade [1]. Despite the significant expenditure, it is hard to find 'evidence of use' of the digitised resources [2], and research shows that about $1 / 3$ of the digital resources in the humanities are not accessed [3]. Art Maps represents an attempt to create new ways to explore the Tate digital collections, as well as to discover new artworks and new artists, and thus to surface the many works from the collection that are not viewed online as often as they deserve to be.
However, the Art Maps platform can support for crowd sourcing geographic information and collecting usergenerated content about any 'object'; it is open source and can be repurposed by other organisations. Hence, the Art Maps demonstration at CHI 2013 can offer the attendees a hands-on experience, as well as an opportunity to explore the platform for future alternative developments.

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