



Press Release

For Immediate Release

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The Philadelphia Department of Records and Azavea Release White Paper on Augmented Reality Technology Research Along with AR App for Historical Photos

Android and iPhone Apps Provide Access to 500 Augmented Reality Enabled Photos from Popular Geographic Photo Search Website *PhillyHistory.org*. White Paper Details Research on AR App Development.

Philadelphia, PA, May 17, 2011 - The Philadelphia Department of Records (DOR) and Azavea announced the publication of a free white paper that summarizes their research on the use of mobile augmented reality techniques for enhancing digital access to historical and cultural resources. This paper accompanies the release of a prototype augmented reality application for *PhillyHistory.org* (www.phillyhistory.org), the online database of historic photograph and map collections from the City Archives, the Water Department, the Office of the City Representative, the Free Library, and the Library Company of Philadelphia, originally built by Azavea. The app is available at no cost for both [iPhone](#) and [Android](#) smart phones.

In spring 2010, the Philadelphia Department of Records was awarded an [NEH Digital Humanities Start-Up Grant](#) to develop innovative techniques for leveraging the sensors in contemporary smart phones to expand public access to historical data in novel ways. "Augmented reality" refers to a new type of software that can augment people's experience of the physical world by overlaying additional digital information. The new Augmented Reality by *PhillyHistory.org* application provides point-and-view access to 500 historic photographs of selected sites around Philadelphia. Users are able to automatically access and view the historic photographs by simply pointing the camera of a smart phone at the contemporary site and selecting an available image. The historic photos then appear as an overlay on the current urban landscape, enabling viewers to compare the past to the present. This prototype application focuses on 3D display of images from several neighborhoods across the city while also providing simplified access to nearly 90,000 images from the *PhillyHistory* database. In addition to photos in the Center City area, images from other neighborhoods have also been incorporated in order to evaluate issues such as tree cover, building height, and other sources for location error that may affect the accuracy of the augmented reality display. To assist with evaluation of the software and provide more in-depth text for select photos, the project team worked with an advisory committee that included the co-editors of The Encyclopedia of Greater Philadelphia and Dr. Amy Hillier, professor at the University of Pennsylvania.

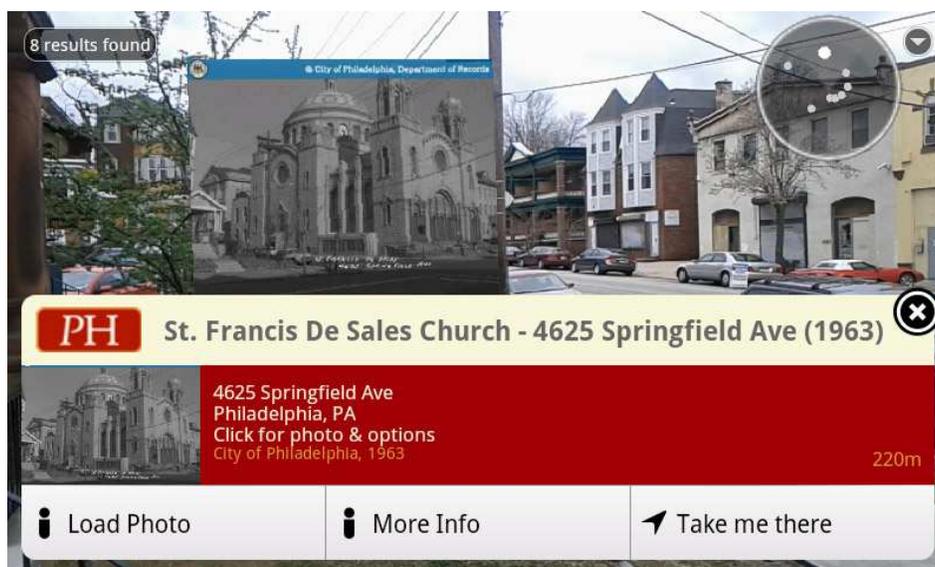
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While augmented reality applications are growing in number and popularity around the world, very little has been written about the technical feasibility of different approaches. How can mobile augmented reality technology be used to enhance asset collections? Is the technology sufficiently advanced to make this type of application possible? Can historic images really be represented as overlays (i.e. 3-D objects pinned in space)? Is the screen size of a mobile device too small to properly display an image and text? Are smart phone networks fast enough to load all this information? With support from the NEH Digital Humanities Start-Up Grant, the DOR and Azavea's software engineering team were tasked with exploring these questions and publishing a white paper to present the findings of this research. The white paper is free to download at <http://www.azavea.com/augmented-reality>

"When we started *PhillyHistory.org* 5 years ago, we only had 90 photos. We could hardly imagine that today we would have almost 100,000 historic photos and maps available to the public. Now with the augmented reality capabilities added to the system, *PhillyHistory.org* makes creative use of the latest technology to bridge the past and the present, as well as give residents and visitors a new means of learning about Philadelphia." – Joan Decker, Commissioner, Philadelphia Department of Records

While the \$50,000 research grant has yielded a more complete application than originally anticipated, the project team encountered a number of limitations with the current state of the technology. The Department of Records and Azavea expect to seek additional funding in order to develop solutions for these limitations as well as bring the technology to a broader array of devices including tablets.



About Azavea

Azavea is an award-winning geospatial analysis (GIS) software development firm specializing in the creation of location-based web and mobile software as well as geospatial analysis services. Azavea is a [certified B Corporation](#) that applies geographic data and technology to promote the emergence of more [dynamic, vibrant,](#)



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[and sustainable communities](#). Each of Azavea's projects, products and pro bono engagements showcases this commitment. For more information, visit <http://www.azavea.com>.

If you would like more information about Azavea or to schedule an interview with Robert Cheetham, Azavea's CEO and President, or Joan Decker, Department of Records' Commissioner please contact Abby Fretz at (215) 701-7503 or e-mail afretz@azavea.com

About the Philadelphia Department of Records

The Home Rule Charter of 1952 established the [Department of Records](#) to ensure that Philadelphia's municipal records are appropriately controlled and managed. The Department sets records management standards and procedures for all departments, boards, commissions and agencies, and it manages key central recordkeeping operations and services such as the City Archives, the Records Storage Center, the Recorder of Deeds and the Central Reprographics Services. www.phila.gov/Records/

Any views, findings, conclusions, or recommendations expressed in this project do not necessarily reflect those of the National Endowment for the Humanities.

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