

Urban Research Machines

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User engagement has always played a key role in shaping an organization's future. Traditional forms of user engagement take the form of surveys, focus groups, town hall meetings, discussion, and participatory design forums. While the modern audience is provided with many such opportunities to submit ideas and participate in discussions, organizations can often predict the demography that is likely to participate in these activities even before they happen. This provides us with an opportunity to develop new ways of reaching out to the modern user. The modern user is a sophisticated and connected individual, for whom traditional models of outreach may no longer be the only relevant form of user engagement. We have seen significant changes in people's sensibilities and expectations because new tools of social media are helping to change the balance of participation and spectatorship among younger and more technologically savvy citizens. Urban Research Machines is a novel way to engage with this new connected "urban" audience. Located in population hubs around the city (and sometimes not located at all), these "machines" re-imagine user engagement in the context of the socially connected urban audience. They are designed to serve as "constantly on" participatory environments for users to share, view, and collectively build on each other's ideas. The interactions allow the urban audience "play" with information, and through such play share information, cooperate with one another, and to take collective action about the topic at hand. Unlike a focus group meeting, these machines do not have an engagement timeframe. Users can engage with them when they want, and where they want. This enables organizations to hear a collective voice aggregated over many weeks instead of singular voices in one sitting. Information is often presented in a simple, playful manner which allows users of all ages and technological capability to engage with information.

Here are two examples of Urban Research Machines:

Urban Forest, for the Chicago Loop Alliance, installed at Block37

Urban Forest 37 embeds the concept of a social family tree into two windows of a large urban shopping mall called Block37. The installation asks passers-by to answer one of two questions – Thin Crust or Deep Dish? Sox or Cubs? O'Hare or Midway? The questions were designed to change out every 72 hours. The interaction model is simple – as you walk down the street you tap on the question you associate with. The tap is visualized as a leaf on a digital tree that grows with every answer. As more people answer the tree grows larger and larger – and the visualization allows passers-by to see which question is getting more responses from people on the street. So if you are passionate about Deep Dish pizza and you see that Thin Crust is winning, you can choose to add to the Deep Dish side. The one step interaction model used (touch the question you want to answer) comes from embedded user research which suggested that passer-by's like to note their preferences without hassles of log in or connecting using other mediated interfaces. On the back end, the numbers of responses, the "forest" constructed over time representing the collective preferences of a city represented the demographic profile of the population which frequents State Street (and the Loop). Both Block37 and the Chicago Loop Alliance, the

sponsoring organizations, were interested in increasing foot traffic in that area. By understanding the demographic profile of the pedestrians on the street will allow both organizations to build experiences that can be catered to specific populations.



Urban Forest 37 used simple touch interaction to record social preferences of pedestrians. The responses were visualized in the form of a tree that grows with every response and in turn a forest that collected all past responses.

The City Listens, for the City of Chicago, installed at the Old Town School of Folk Music

In 2012, the City of Chicago's Department of Cultural Affairs and Special Events (DCASE) launched an initiative to develop a 2012 cultural plan for Chicago. The 2012 Chicago Cultural Plan provides insights on how to elevate the City as a global destination for creativity, innovation and excellence in the arts. The focus of the project is to further build on Chicago's vast cultural assets and vibrant community, established through the collaborative partnerships formed with the public and private sectors and civic community. Public engagement played a key role in shaping Chicago's cultural future. Public community meetings were held and an interactive website enabled Chicagoans to submit ideas and participate in a discussion about the city's cultural future. Over the course of the Spring/Summer (January-May) 2012, DCASE engaged three IIT Institute of Design student teams to conduct user research, design, and deploy interactive urban research machines in cultural hubs around selected neighborhoods. The installations are designed to monitor interaction and capture user information at these hubs. At the end of the project, these experiential, located, and portable prototypes helped the City of Chicago, Department of

Cultural Affairs and Special Events augment traditional forms of research by listening to the voice of a larger diversity of Chicagoans as they move through their everyday lives. The City Listens project was located at the historic Old Town School of Folk Music in the Lincoln Square neighborhood of Chicago. Playing off the air of performance and collaboration at the Old Town School of Folk Music, the installation allowed visitors to "talk" to the City by recording words, playing music, or otherwise expressing themselves through sound. The installation poses one question about culture in the City of Chicago every 15 minutes and asks users visitors to share their responses in the form of stories, opinions, or wishes for the city. The recordings were then played back at an adjacent listening station for the visitors to play with, comment on, and build upon. The interaction with the installation and the recordings of other visitors provided insight on how people view arts, education, and cultural participation in this part of the city.



The City Listens project enabled visitors to record their voice in response to questions about culture at the Old Town School of Music. The responses are stored in the form of voice recordings that were played back to the visitors and used by the City to draft the 2012 Cultural Plan.

About Prof. Anijo Mathew:

Anijo Punnen Mathew is an Assistant Professor at IIT Institute of Design. His research interests fall within two broad categories: a scholarship of pedagogy—developing strategies for companies to adapt and change as we move from an industrial economy into an information economy, and a scholarship of research—evaluating new semantic appropriations of place as enabled by new technology and media convergence. Anijo has a Master of Design Studies (MDesS) from Harvard University's Graduate School of Design and a professional Bachelor of Architecture (BArch) from Birla Institute of Technology, Mesra, Ranchi (India). Prior to joining ID, he was a tenure track assistant professor at Mississippi State University's College of Architecture, Art, and Design (CAAD) where he taught in the graduate program and led the interaction design track at the Design Research and Informatics Lab (DRIL). He is currently completing a PhD exploring the intersection of computing and design with Yvonne Rogers and Peter Lloyd at the Open University in the U.K.

Anijo has consulted with and/or conducted research for the City of Chicago, Hyatt, Hong Kong Design Centre, Singapore Urban Redevelopment Authority/River One, Chicago Public Schools, Chicago Tribune, Motorola Mobility, Gensler, Godrej & Boyce, Gravity Tank, Chicago Loop Alliance, Chicago Artists Coalition, and the Chicago Architecture Foundation. His projects have been exhibited at the National Museum of Mexican Art and the Old Town School of Folk Music, installed in Chicago's City Hall, Cultural Center and on State Street. He has published in international conferences, and has been recognized by PSFK, IxDA, and IDEO. In 2007 the Architectural Research Centers Consortium (ARCC) selected Anijo as their New Researcher of the Year for 2006-07. His research has led to experience design for the City of Chicago's 2012 cultural plan, events such as Art Loop Open, and the re-branding of Chicago's State Street. He has served as a design chair for CHI 2009 and 2010, the premier conference of Association for Computing Machinery (ACM)'s Special Interest Group on Computer Human Interaction (SIGCHI) and on the board of directors of the Association of Computing Aided Design in Architecture (ACADIA). He currently serves on the Digital Task Force of the Chicago Architecture Foundation (CAF) and is a member of the Placemaking Advisory Board of the Chicago Loop Alliance.

For more information about Urban Research Machines and how your organization can employ such machines, contact:

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