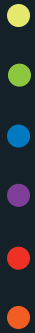




FUTURESCAPE CITY TOURS

A NOVEL METHOD FOR CIVIC ENGAGEMENT



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The Center for Nanotechnology in Society at Arizona State University (CNS-ASU) facilitates the involvement of the general public in nanoscale research and development to build new capabilities for understanding and governing the power of nanotechnology to transform society. CNS-ASU research, education and outreach activities are supported by the National Science Foundation under cooperative agreement #0937591.



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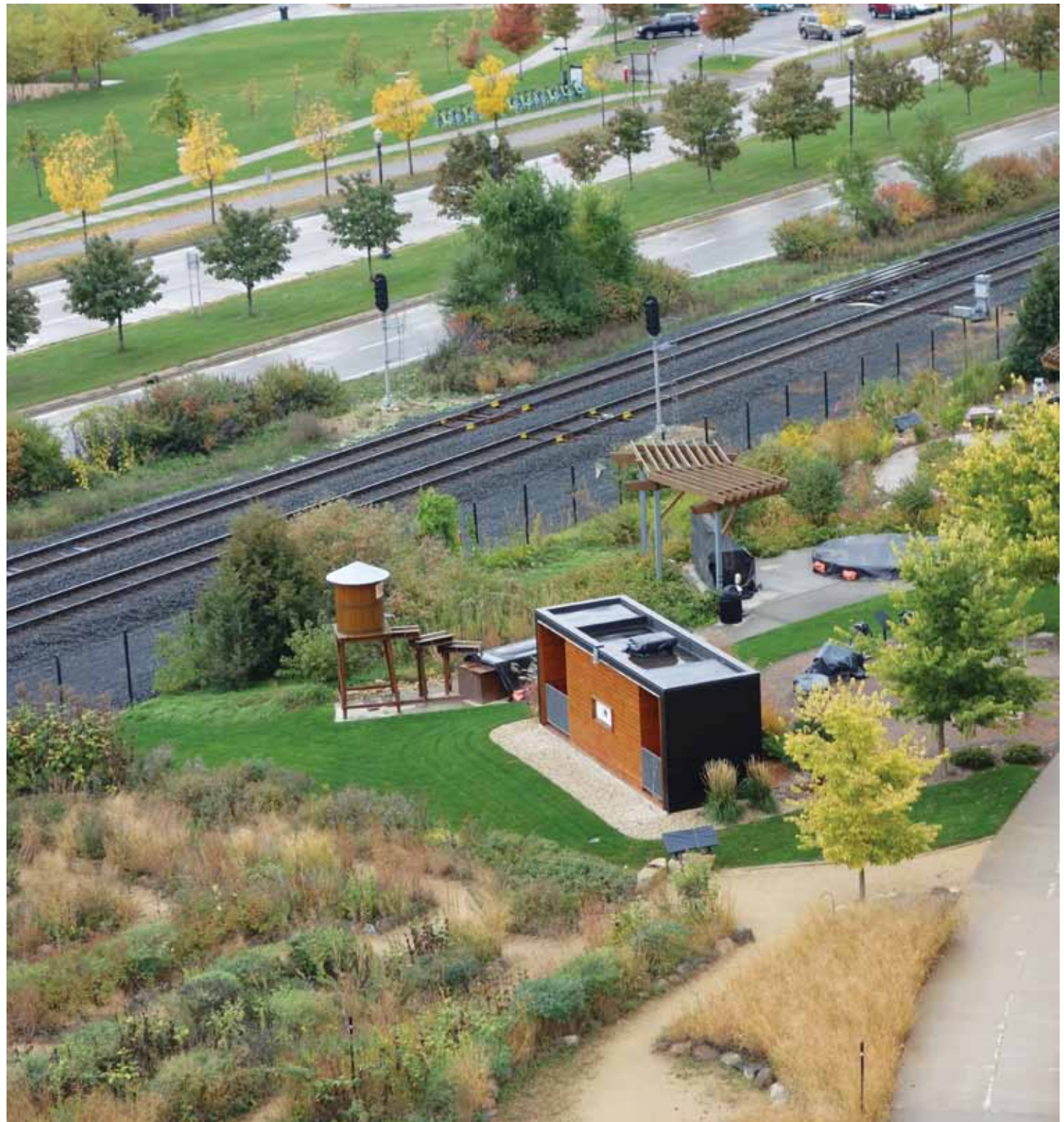


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This guide serves as a short introduction to the ways in which city governments, informal educators, and others can use Futurescape City Tours to embed the public's values into decision-making processes affecting urban futures.



TOWARD A MORE DEMOCRATIC SOCIETY

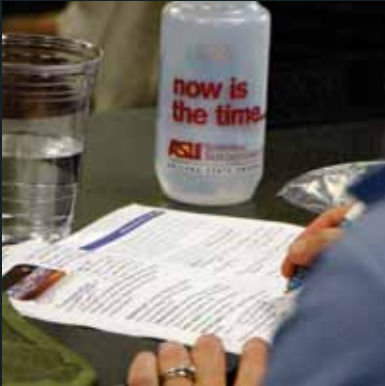
The choices a society makes today often have irreversible consequences on a future we can't yet see. Our values—such as equity, sustainability, freedom, happiness, competition—and how they are prioritized or ignored shape those choices and outcomes. Scenarios, models, prototypes, and even science fiction are all ways people attempt to imagine this uncertain future. Yet whose imagination matters?

While everyone has a stake in the future of our urban environments, only a select few are empowered with the knowledge, skills, and opportunities to make a difference in how a city evolves. This imbalance can result in entities with more authority, knowledge, money, or other power exerting greater influence on the direction a city or community takes, even though that direction may not reflect the interests and concerns of much of the city's general population.

Forums such as public hearings, city council meetings, school board sessions, and focus groups have traditionally provided the public with opportunities to voice opinions about their cities' and communities' development. Often, however, it's only the most informed, opinionated, or articulate who speak up in these situations. Many voices are drowned out among the din of vocal—and often polarized—factions, and true dialogue and empathy among stakeholders remains rare. While focus groups and hearings, and more recently citizen juries and consensus conferences, attempt to inform and engage a wider range of citizens and to help make sure that more than the squeakiest wheels get heard, these forms of public engagement still cater to the



AN FCT CONSISTS OF THREE SESSIONS:



Orientation: Guided discussion uncovers the concerns and curiosities of participants related to the FCT topic and the future of their city or community.



Walking Tour: Based on those concerns and curiosities, participants go on a guided walking tour of their city or community. Along the way, they take photos representing the past, present, and future and also meet with subject experts and stakeholders.



Deliberation: Participants use their photos in a guided deliberation about the past, present, and future of their city or community as it relates to the FCT topic.



A camera is a tool for learning how to see without a camera. – Dorothea Lange

most vocal and articulate among us. Such approaches tend to stick to traditional learning spaces and relegate citizens to passive learner rather than equal contributor.

In an effort to create a more inclusive, sustainable, and integrated public engagement experience, researchers at the Center for Nanotechnology in Society at Arizona State University (CNS-ASU) developed Futurescape City Tours (FCTs). Combining a walking tour, photography, guided deliberation, behind-the-scenes expeditions, and informal conversations with city planners, policymakers, researchers, and civic leaders, FCTs attempt to embed citizens' values into local systems of innovation. Citizens drive the agenda and participate in conversations as active, experienced, and equal contributors.

The urban environment is rich in details, colors, smells, and textures, and the heart of an FCT is the tour itself. Participants move around the city to explore spaces and flows while they train their eye to notice emerging trends, early signals of change, and cracks in what's normal to begin to appreciate what's evolving. Participants explore not only the surface of cities, such as walkways, building facades, public establishments, and transportation, but also behind-the-scenes operations.

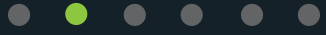
Along with moving about, participants take photos in order to visually represent their ideas and experience of a city. Photography, which relies more on sensory experience and less on reasoned argumentation, encourages participants to notice differently, promotes reflection, and helps eliminate language barriers.

While tour facilitators decide the overall impetus for an FCT, citizens' concerns and curiosities drive the tour agenda and conversations. Throughout the FCT experience, each participant is given multiple turns to share and contemplate, including plenary debates, one-on-one conversations, small-group discussions, and solitary reflection and writing, among others. Diverse opportunities for communication ensure interactions don't cater to certain personalities, cultural backgrounds, or education levels.

By focusing on where the past is persisting and where the future is emerging, citizens uncover clues to the direction a city or community is heading—and whether that direction is desirable or not. The photographs and perspectives generated during the tour are used as the basis for facilitated deliberation with their fellow citizens about their community's path into the future and how they can impact it. Participants are not expected to come to a consensus, all reactions and concerns are considered valuable, and the input of participants is equally weighted with that of subject experts, stakeholders, and decision makers.



A Futurescape City Tour (FCT) is a walking tour of the urban environment that invites participants to take photos, jot down reflections, and notice their city or community in a fresh light while considering its past, present, and future. Facilitated deliberation before and after the tour, as well as informal conversations with researchers, stakeholders, city planners, and officials, encourages all participants to voice their concerns and desires for the future of their communities.



THE ORIGIN & EVOLUTION OF THE FUTURESCAPE CITY TOURS

One of the primary goals of the NSF-funded Center for Nanotechnology in Society at Arizona State University (CNS-ASU) is to design and test new ways to embed societal values into research and innovation. As technology becomes more complex and pervasive in society, its potential impact on urban environments and citizens' day-to-day lives grows. Ensuring that the general public has the opportunity to understand, respond to, and influence future directions related to innovation is therefore imperative for upholding a truly democratic society. To that end, through an NSF grant, CNS-ASU developed FCTs to engage citizens about technology's impact on their cities. They began with a single-city pilot and, following its success, expanded the program to include five additional cities. Through multiple iterations, researchers were able to figure out what works best with FCTs and why.

The pilot FCT, held in Phoenix in 2012, brought citizens together to consider the implications of nanotechnology for their city. They toured locations correlated to their concerns about solar energy, biofuels, transportation, and water use. They took pictures throughout the tour to document their impressions and met with scientists, engineers, researchers, and professionals to discuss the role of technology and its effect on the city. Participant photos were later used as the basis for guided deliberation.





In 2013 the FCT expanded its scale to include tours in St. Paul, Portland, Springfield (MA), Edmonton (Canada), and Washington, DC, in addition to Phoenix. In each city, citizens, stakeholders, and experts considered the relationship between emerging technologies, urban environments, and sustainability. Citizens, ranging from those generally interested in their city's future to engineers working with nanotechnology, were able to interrogate the changing face of their city.

FROM AGRICULTURE TO AESTHETICS: ADAPTING FCTS TO YOUR NEEDS

While the FCTs were originally developed to explore emerging technologies, their format is flexible. They can be used to interrogate a variety of issues related to a city, neighborhood, or region, from more specific topics like water resources or public transportation to broader topics like the arts or poverty. City planners, researchers, policymakers, or educators, among others, can facilitate FCTs. They can be used to engage a diverse swath of participants or a more focused group and can include three day-long tours or one half-day tour, depending on the goals of the project and the resources available. FCT outcomes can serve as an end themselves or can be built upon with additional FCTs, public exhibitions, or other forms of public engagement.

As with every urban or community issue, there are dilemmas, conflicting agendas, and economic trade-offs that are tricky to unravel. Further complicating matters is that change—or progression into the future—is often ambiguous and difficult to decipher while it's happening. A nudge toward a seemingly positive outcome in one area may result in a leap to a negative outcome in another. FCTs can focus participants' attention on these subtle changes, as well as support the integration of their values into decision-making.



For example, an FCT may examine the pros and cons of more locally sourced food. At first glance, food grown nearby appears to require less transportation and energy—seemingly good outcomes. However, growing food locally might also put additional strain on urban water resources or bring about unexpected changes to the workforce, affecting the city, state, national, or global economy. What are the drivers and perceptions affecting the way cities produce or obtain food? How do emerging technologies transform food production and distribution? What are the implications of different decision pathways? And, how might the food system evolve over time?

Food production and distribution is only one example of an issue that might transform a community. An FCT could also be used by a homeowner's association to consider the design of a new playground. Tour stops could include school playgrounds, a playground equipment company, or a children's museum, depending on participant interests, which might include safety, aesthetics, creativity, accessibility, adventure, or any of a myriad of other values. Speakers could include engineers, early childhood development researchers, psychologists, artists, an Americans with Disabilities Act advocate, etc.

Following are some additional examples of possible FCT uses:

- A community college could conduct an FCT to envision future job skills and better understand the needs of the local economy and the desires of the community.
- A city council could conduct an FCT to examine the public's views about the role of art and aesthetics in their city.
- City professionals could conduct an FCT to explore a city's water resources, public transportation, or business development, along with options for the future.
- A science museum could use an FCT to complement an exhibition and connect the theme to the concerns of the local community.





Regardless of who is doing the convening or what the topic of interest may be, it is important that an FCT include the following:

- A walking tour designed around participant concerns, curiosities, and values
- Participant photography as a basis for deliberation
- Formal and informal exchanges between participants and behind-the-scenes experts and stakeholders
- Reflective writing
- Facilitated dialogue and deliberation



FCT DEVELOPMENT

In 2012, through an NSF grant, CNS-ASU conducted a pilot FCT in Phoenix, AZ. In 2013, the project expanded to include 5 additional cities.

PHOENIX FCT PILOT 2012:

Participants explored how emerging technologies might transform the urban landscape.

Participant Interests

- Solar/alternative energy
- Public spaces & transportation
- Water

Tour – 9.4 miles

- 1 Arizona Science Center 8:15 AM
- 2 Rooftop Solar Installation Bioscience High School 9:30 AM
- 3 DIY Biofuels demonstration Sunflower Garden 10:30 AM
- 4 Roosevelt Row Graffiti en route to ASU 11:30 AM
- 5 Lunchtime Transportation Panel Downtown ASU Campus 12:00 PM
- 6 8 Light Rail to/from Canal Time for Reflection 1:45 & 3:30 PM
- 7 The Grand Canal Trail 2:30 PM
- 9 Tour ends 4:00PM

Side excursions included a graffiti alley and a quiet, contemplative light rail ride.

Image displays and a video about the tour were exhibited at a city-wide art event. Attendees added their own reactions and reflections.



PORTLAND FCT 2013:

Participants explored the impact of technology on sustainability and everyday life in Portland.

Citizens' interests

- Social equity and justice
- Building nature and new ecologies into the city

Tour

- 1 Portland State University District and Cooling System 8:00 AM
- 2 Waterfront Park 9:30 AM
- 3 EcoTrust 11:30 AM
- 4 Escuela Vivi Community School 2:00 PM
- 5 Eastbank Esplanade 3:30 PM

The FCT Portland team partnered with local artists to host an interactive experience at a local art gallery, where a range of community members articulated a vision of the past, present, and future of technology in Portland.



FCT DEVELOPMENT



EDMONTON FCT 2013

Participants chose from 3 tours to explore Edmonton's changing relationships with technologies and innovations.

Participant Interests

- Sustainability
- Innovation
- Infrastructure

Tour 1 – 1.4 miles

Creating Sustainable Urban Communities

- 1 Northern Alberta Institute of Technology (NAIT) Tower to view Blatchford redevelopment area. Tour begins: 9:30 AM
- 2 Driving tour of Blatchford redevelopment area 11:00 AM
- 3 Lunch at NAIT 12:00 PM
- 4 NAIT Nanotechnology Facilities Tour 2:00 PM

Side excursions included Light Rail Transit (LRT) infrastructure, a traditional suburban area, and the Alberta Aviation Museum



Tour 2 – 10.6 miles

Innovation Spaces

- 1 Century Park LRT 9:30AM
- 2 Alberta Innovates Technology Futures 10:00 AM
- 3 nanoAlberta Crystalline-Cellulose Plant 10:15 AM
- 4 Quantiam Technologies Inc. 11:00 AM
- 5 Alberta Centre for Advanced Micro Nano Technology Products 11:45 AM
- 6 Enterprise Square Atrium 1:00 PM
- 7 TEC Edmonton 1:30 PM
- 8 Walking tour of Downtown Edmonton 2:30 PM
- 9 Startup Edmonton 3:30 PM

Tour 3 – 31.3 miles

Infrastructure, Technology, & Innovation

- 1 City-Region Studies Centre (CRSC) 9:15 AM
- 2 Chancery Hall, Office of Infrastructure 10:00 AM
- 3 The Quarters walking tour 10:30 AM
- 4 Lunch at Enterprise Square
- 5 E.L. Smith Water Treatment Plant 2:00 PM
- 6 CRSC 4:00 PM

All 3 tours concluded at Mercer Tavern.

An interactive display of the FCT was exhibited at the TELUS World of Science. The event was open to the public and included a series of presentations on innovative nanotechnologies.



FCT DEVELOPMENT



SPRINGFIELD (MA) FCT 2013

Participants explored how new technologies could change their cities and lives in the near future.

Participant Interests

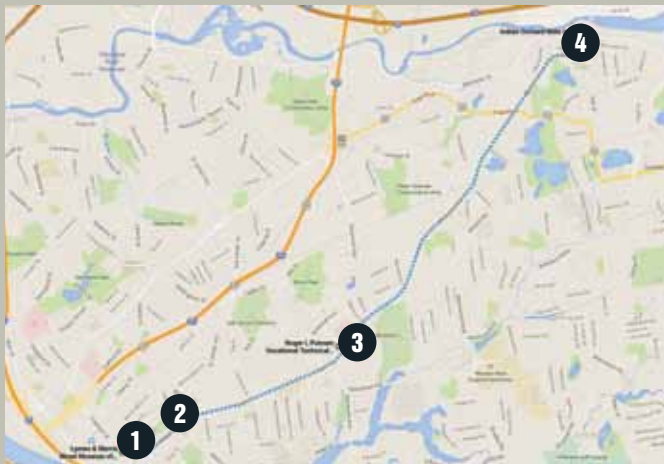
- Connections
- Quality of life
- Linking history to the future



Tour – 18 miles

- 1 Lyman & Merrie Wood Museum of Springfield History 9:30 AM
- 2 Springfield Data Center 11:00 AM
- 3 Roger L. Putnam Vocational Technical Academy 12:00 PM
- 4 Indian Orchard Mills/ Geek Group of Western Massachusetts 2:00 PM

Photos and material artifacts from the tour were combined with a mini “makers space” at the UMass Design Center.



WASHINGTON, DC FCT 2013

Participants explored what nanotechnology might mean for Washington, DC.

Participant Interests

- Sustainable Living
- Transportation & Infrastructure
- Energy Systems
- Equitable and Just Distribution of Emerging Technologies
- Transparency in the Governance of Emerging Technologies

Tour – 3 miles

- 1 National Building Museum 10:00 AM
- 2 CityCenterDC neighborhood 11:30 AM
- 3 Navy Yard/Canal Park 1:00 PM
- 4 Anacostia Public Library 3:00 PM



ST. PAUL FCT 2013

Participants explored how technologies impact the past, present, and future of cities.

Participant Interests

- Energy
- Privacy
- Public spaces & connections

Tour – 2 miles

- 1 Science Museum of Minnesota 9:00 AM
- 2 District Energy 9:30 AM
- 3 Bedlam Theatre 11:00 AM



Photos from the FCT were exhibited at Amsterdam Bar and Hall.





Attracting FCT Participants

The following list provides a good start for places to consider distributing your informational flyer to attract members of the public:

- Museums
- Libraries
- College campuses
- Nonprofit organizations
- Neighborhood organizations
- Town halls
- Newspapers
- Historical Societies
- Makerspaces
- Farmers Markets
- Social Networking Sites
- Relevant listservs
- Community clubhouses



PLANNING AND EXECUTING A FUTURESCAPE CITY TOUR

Conducting a walking city tour with a citizen-driven agenda may seem daunting. Upfront planning and preparation can help ensure that you, the participants, and the experts and stakeholders come away with a worthwhile experience. The first part of an FCT should include some kind of orientation to both build trust among participants and uncover the participants' concerns and curiosities related to an issue affecting the future of their city or community. The second session is the tour itself, and its agenda is developed around the interests of the citizens discovered during the orientation. The third session facilitates citizen reflection, deliberation, and debate about what they saw, learned, and discovered on the tour.

PLANNING, PREPARATION, AND PARTICIPANTS

Based on the lessons learned from past FCTs, we offer the following considerations and suggestions as you begin planning your FCT.





FCT Planning Timeline Example

8 weeks before Orientation

- Design informational flyer for printed and digital distribution.
- Create web page/website with more information about the tour and instructions for applying.
- If using, create a survey site for applicants to apply.
- Distribute recruitment flyer/ advertising.

6 weeks before Orientation

- Reserve rooms for Sessions I and III.
- Arrange for refreshments/meals at the Orientation and Deliberation.
- Develop agenda, necessary presentation materials, and interactive activities for Orientation.

Establishing the Purpose: What do you want from your FCT?

The first task for conducting a successful FCT is deciding a topic or central theme that is timely and important. What issues are pressing in your city or community? What controversies demand further deliberation? The framing of the FCT can be broad (e.g., safety in the city) or very specific (e.g., mitigating the urban heat island or renovating a homeless shelter). Once a topic is chosen, consider what specific questions you would like citizens to consider.

Meeting Logistics

Time & Location: Once you've defined your FCT, you'll need to identify a location to conduct the orientation and deliberation sessions. The location should accommodate participants and facilitators; have moveable tables and chairs, windows, wall space, and some way to present information, such as a projector; and be conveniently located for parking and transportation.

Food: Food provides comfort and reduces formality. If your budget allows, you may consider providing meals or snacks.

Capturing Information: You will want to consider how sessions will be recorded and how participant input will be documented. It is a good idea to capture the conversations live, for instance on a flip chart, so that participants can see their contributions right away. You might choose to video or audio record, or simply have note-takers. It is also a good idea to take photos of the session to capture the FCT process, particularly if you later want to consider exhibiting the FCT in a public space.



Recruiting

Informational web page: Interested participants will need a place to go for more information and to sign up if they're interested. The site should include information about the FCT topic, the FCT format (tour, photography, and deliberation), brief background about the issue(s), and questions to be explored through the tour and deliberation, as well as orientation date and location, instructions on how to apply, and who to contact with any questions.

Application process: Prior to recruiting participants, you'll need to know how you'd like them to apply (such as via a survey site or email) and what information you'd like them to provide. In addition to contact information, you may want to find out



4 weeks before Orientation

- Analyze application survey and select participants.
- Notify selected participants and include the following information:
 - Dates and places for orientation session and closing session
 - Confirmation of acceptance deadline
 - Orientation agenda
 - Initial prompts for discussion
 - Link to website with more information
- Send letters of rejection to non-selected participants



Orientation toolkit

- Nametags
- Facilitator cameras, video cameras, audio recorders and/or note takers
- Post-its
- Easels
- Paper or notepads
- Pens & markers



about such information as employment, education, family income, ethnicity, political orientation, hobbies, experience with the FCT topic, civic involvement, etc. While the cadre will be limited by those who self-select to apply, among those you should aim for as wide a demographic representation of the city or community as possible.

Advertising: A colorful flyer that can be distributed by hand, electronically, and through media (see box on page 20 for distribution suggestions) can be used to attract participants. The flyer should describe what issue will be explored and direct them to the FCT web page for more information. Links to sample flyers can be viewed on the FCT Program website: cns.asu.edu/fct

Selection of Participants: A manageable size for an FCT is approximately 15 participants, but it is possible to scale it up. It's best to choose participants that will create a demographic balance in the group in terms of age, education, income, gender, and ethnicity (but this will depend on your specific project's goals).

SESSION 1: ORIENTATION

Throughout the session it's critical to ensure that everyone participating in the FCT is heard and valued. The first session is an orientation to build trust and comfort among participants and uncover citizens' curiosities and concerns about the central subject of the tour. It's important to keep in mind that citizens may be intimidated to give their opinions or ask questions in the presence of "experts." Tour organizers can help overcome these challenges by practicing good facilitation skills, such as summarizing and clarifying what participants say, helping shift the focus between participants and subjects when necessary, and allowing plenty of time for participants to consider questions before moving on or starting discussion. Links to helpful facilitation tools and training are listed in the Additional Resources section at the end of this guide.

Planning and Preparation for the Orientation

Nametags: You will want to make sure that all participants have an opportunity to interact with all other participants as part of three breakout groups. One way to do this is by coding nametags. For example, you could coordinate colored stickers on nametags with three different colored candy bowls on the tables. Each nametag should have two of three colors so you can reconfigure the groups three different times.

Room Set-Up: Arrange the room for participants to sit in three groups. Setting aside a separate table for food and drinks provides another opportunity for participants to interact with each other. Place notepads and pens at each table.

Suggested Staff: It's best to have a facilitator available for each group discussion. They should guide conversation and take notes or record the discussion.

Conducting the Orientation

Welcome & Participant Arrival: After participants are welcomed and signed in, have participants fill out any consent forms, get name tags, and then sit at the table corresponding to the first identifier on their nametags. This is also a good time to provide any necessary parking validations.

Setting Discussion Expectations: While most people know how to converse civilly, passion can sometimes overtake politeness. Setting ground rules together for interactions, such as maintaining open-mindedness, sincerity, and curiosity during conversations, will reassure participants that facilitators are there to help manage conversations, if necessary, and will encourage those who may be hesitant to



The first task for conducting a successful FCT is deciding a topic or central theme that is timely and important. What issues are pressing in your city or community? What controversies demand further deliberation?



A case for not getting to know each other...at least not right away

Your first instinct may be to have the participants get to know each other before they dive into talking about the FCT topic. One of the biggest challenges for an FCT, however, is reducing perceptions of authority and expertise not only between participants and facilitators, experts, and stakeholders, but also among the participants themselves. If, for example, you're conducting an FCT around the topic of water resources and someone reveals he or she is an industrial wastewater engineer, others may quickly be intimidated to share their ideas about water management for fear of appearing uneducated or uninformed. It's important to set the stage that all participants are experts of their own experiences and concerns as citizens, that all of their input is valued, and that their involvement is based around their curiosities, interests and concerns, rather than any specialized knowledge. When you do have participants introduce themselves, ask them to share why they want to participate rather than why they feel qualified to do so.

contribute. Additional resources on facilitating healthy conversations and dialogue can be found in the Additional Resources section at the end of this guidebook.

Icebreaker: In the acceptance letter, participants were asked to come prepared to discuss the following: What are three examples of technological change that have had big impacts in your lifetime? Have participants discuss their responses in the three groups, and then have each group share the highlights of the conversation with the larger group.

Uncovering Citizens' Concerns & Curiosities: One of the essential features of an FCT is that the tour is developed around the interests of citizens. The orientation provides the opportunity to discover what citizens are most concerned and curious about related to your FCT topic. More specifically, you should have participants consider: 1) what they value most and would like to preserve, 2) what troubles them most and they'd like to transform, and 3) what they feel are the biggest challenges and opportunities related to the discussion topic. The "Conversation Café" technique (conversationcafe.org) offers a nice structure for group dialogue around these topics and enables participants to be heard and build on one another's ideas.

Introducing Photography for Deliberation & Preparing for the Tour: A photo can be used to select, simplify, and abbreviate a vivid memory of an instant. During the Tour itself, participants will use photography to focus their attention and train their eyes to see signs of the past persisting and the future emerging in their cities. Because this is a more specific and purposeful approach to capturing images than participants may have previously experienced, it is important during this first session to explain this approach and the broader role of photography in the FCT up front. Citizens should be encouraged to consider the following when they take a picture:

- What do I see and what draws my attention?
- What is the relevance of a certain object in relation to its environment?
- From which angle do I want to shoot to help create a certain message?
- What elements do I want included in the picture—how will a wider or narrower frame affect what the image communicates?

Practice Makes Perfect Captions

Captioning photos is a critical element of the FCT deliberation. The following exercise can be conducted during orientation to give participants practice writing effective captions.

- 1. Display three pictures related to your FCT subject area.**
- 2. Have participants each choose one image that is interesting or meaningful to them and consider how it's connected to the FCT subject.**
- 3. Have them write an 8-10 word caption to share.**

Sample 3-hour Orientation Agenda

- 3:30 PM: Arrival of staff for set-up
- 4:30 PM: Check-in
- 5:00 PM: Welcome: FCT overview & ground rules
- 5:15 PM: Icebreaker related to your FCT subject
- 5:30 PM: Group debrief from Icebreaker
- 5:45 PM: Introduction to FCT topic
- 6:00 PM: Break for meal
- 6:15 PM: Meal, participant introductions, discussion about FCT topic and the future
- 6:35 PM: Photo caption practice
- 6:45 PM: Group dialogue to uncover the participants' concerns and curiosities as they relate to the past, present, and future of the city and the FCT topic
- 7:45 PM: Closure and guidance for tour (where to meet when and what to bring)

Participants will later caption the photos to help give meaning to the photograph. Captions help answer what struck the photographer about the scene and what he or she hope others will notice, too. The following tips will help participants create good captions:

- Limit captions to 8-10 words.
- Make a substantive connection with the focal topic of the tour.
- Note how the image relates to the past, present, or future.
- It is not necessary to describe the subject.

Before the orientation session concludes, you will want to determine whether any of the participants will need you to supply them with a camera for the Tour.

SESSION 2: THE TOUR

The orientation session revealed the concerns and curiosities of the participants. The second session, the tour, will take citizens into the city, where they can interrogate key features of the city through photography, reflection, behind-the-scenes exploration, and informal conversations with experts and stakeholders.

Planning and Preparation for the Tour

Sites selection: Referring to the list of concerns gathered in the orientation, you'll need to narrow it to three to five shared interests. Designing the tour requires incorporating stops related to the participants' curiosities, while keeping in mind travel logistics and location accessibility. Be sure to vary the kinds of locations that you visit. The dynamics between strolling along a canal talking about water

quality with environmental scientists will differ from visiting a solar rooftop installation with an energy company representative. Try to include a diverse array of indoor and outdoor settings (e.g., a farmer's market, (re)industrial zones, hidden infrastructures) and modes of interaction (some active and energizing, some pensive and slow). Combining three stops with a lunchtime panel has worked well with previous FCTs. If possible, include unique sites that the participants would not otherwise have access to (for example, underground heating and cooling facility or rooftop solar installation) and identify at least one expert and one stakeholder who can participate at each stop. It is important that the experts and stakeholders are present for citizen learning and take on the spirit of joint discovery, rather than a traditional lecture. You can also include “sidebar” stops—little stops along the way to notice something unusual or unexpected (e.g. a graffiti alley, a bridge overpass, a community garden).

Practice Tour Run: Once you've decided on your tour agenda, do a practice run. Make sure that the transportation logistics allow time for observation, thinking, and photography stops, as well as location tours and conversations with experts and stakeholders. Doing a dry run may open up possibilities for sidebar stops, or you might discover that you need to scale back the tour.

Expert and Stakeholder Recruitment and Preparation: One of the goals of the tours is to give participants access to people and places that they may not normally get and to perhaps expose citizens to a larger framework of influence and understanding surrounding an urban issue or topic. Good considerations for experts are researchers, professionals, or scientists studying a topic related to your FCT subject. Stakeholders, on the other hand, might be those people in a position to act or influence policy related to your FCT issues: representatives from corporations, civic and community leaders, nonprofit professionals, or policymakers. Just like the participants, experts and stakeholders should be diverse, representing a variety of career stages and roles within the tour topic.



Going Deeper with a Lunchtime Panel

Lunch provides a good opportunity for experts to present on a topic that doesn't lend itself well to a specific location. It's also a good opportunity to incorporate a more in-depth group discussion. One option is to have a panel of experts and stakeholders explain what they do and how that might be significant to citizens. Participants can then break up into groups of three or four and decide on questions or challenges for the panel. Moderation of this session is important to make sure that every group gets to present and hear a response and to make sure panelists' leave citizens ample time to voice their concerns and questions.



Tour Toolkit for FCT Organizers

- **Bags, if providing**
- **Water bottles & Snacks**
- **Pens**
- **Workbooks**
- **Name tags**
- **Extra cameras**
- **Method to record debriefing session**
- **First Aid Kit**

Once you've identified the experts and stakeholders you'd like to invite, it is critical when you contact them that they understand the FCT goal is to allow citizens to share, critique, and broaden perspectives rather than to merely be informed. You should let them know that you don't want them to come prepared with a lengthy lecture or PowerPoint presentation. Their role is to share their knowledge and to spark a useful and imaginative dialogue. The FCT is meant to be just as much of a learning experience for the experts and stakeholders as it is for the participants.

Participant pre-reading and preparation: Ideally, your chosen participants will have a varying range of knowledge and experience related to the FCT topic. Therefore it is helpful to provide access to background information that allows participants to explore the topic as lightly or deeply as they wish. We recommend providing an email or website with links to related resources, such as scientific papers, videos, TED talks, blogs, newspaper and journal articles, editorials, and education, government, and organization websites. Resources should be appropriate for diverse educational and knowledge levels ranging from beginner to expert. You will also want to send reminders prior to the tour for participants to bring their cameras, sunscreen, comfortable shoes, etc.

Workbook for Reflection: Since reflective writing is a feature of the tours, a workbook with writing prompts can be prepared in advance. This booklet can also contain information and historical pictures related to the stops, bios and contact information for the tour speakers, and instructions for where and how to upload their pictures after the tour. Participants can record their thoughts, jot down questions, and track their observations of the past, present, and future during the tour itself.

Conducting the Tour

Meet-up location: It's best to meet up where you want to begin your tour and where people can park for the full day, if necessary, or can arrive or depart easily by public transportation.

Use of Photography during Tour: The hallmark of the FCT is a shared, attentive, walking tour of the urban environment that invites participants to notice the city in a fresh light. As they walk and visit sites, ask participants to take photos and jot down their reflections.

Tour conversations: A good way to start the conversation with experts and stakeholders at each stop is to summarize the participants' concerns and interests shared in Session I and then ask the speakers to share their knowledge in relation to those concerns and interests.

Tour Closure: Be sure to include time and space at the conclusion of the tour for a roundup of impressions and a brief discussion about the day while everything is fresh in the minds of the participants. Some of the best comments and insights will come out during this debrief, so be prepared to record it in some way (e.g., take notes, video, or audio).

At the end of the tour, you will need to provide participants with some instructions on how to complete their "homework" prior to the third session. Ask participants to choose 20 images (the good, the bad, the ugly) that are most important to them (as individuals) and have them upload the images to a shared website (like Flickr). Ask participants to then caption each selected picture in a way that reveals their thoughts

We offered the following prompts to

FCT participants:

Find Futures in the PAST:

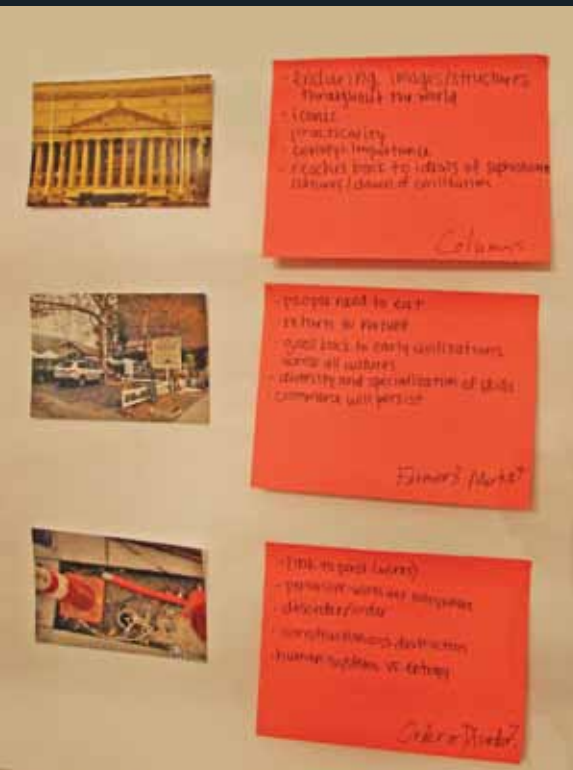
As you explore, consider the history of the city and the ways that the past defines the present. Which sites and images are of the past, but might continue to endure in the future?

Spot the Signs of the PRESENT:

Identify and photograph street signs, advertisements, shop fronts, vistas, and technologies – for instance – that capture the spirit of the present.

Identify the FUTURE:

As you wander, where do you see the future breaking through? What are the places that point to precursors of dramatic change?



about the image. After they've uploaded and captioned the pictures, have them tag each photo with "futurescape [name of your FCT]" and then either "past," "present," or "future." This tagging will enable you to then find and bulk download the images for use in the deliberative session.

SESSION 3: DELIBERATION

Session III serves as a synthesis and wrap up. Focusing on their photos and notes, participants will reflect upon, share, and debate their impressions, thoughts, and concerns through three exercises that focus on the past, present, and future.

Pre-planning and Preparation

Collecting, Captioning, and Printing Photos: Essential to Session III is the collection of photos with captions in a centrally accessible place. In addition to the instructions given out during the tour debrief, reminder instructions should be sent to participants to choose 20 of their photos and upload them with captions by a deadline that allows time for facilitators to print three sets of the chosen photos. Also, make sure that participants know to include photos that show both positive and negative representations, as both are important for the deliberation. This communication is also good place to remind participants of the date, time, and location for Session III and to bring their workbooks or any other notes they took.

Room set up: Like session I, the room should be arranged for participants to sit in groups of five or six. An extra table should be available for food. After separating the photos into groups representing the past, present, and future, the following stations should be set up:



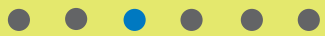
The Past: Display all images of the past on a table. Provide markers, small post-it notes of multiple colors, and a large flipchart-sized post-it pad at each group's table.

The Present: Display all of the present photos on a wall. Provide tables with two colors of sticky pads.

The Future: Create a wall-size timeline with 2015, 2020, 2030, 2040, and 2050 along the x-axis. On the y-axis at the ends, label the top desirable and the bottom undesirable. Make sure it is large enough for participants to post photos with notes directly onto the sheet.

Deliberation Toolkit

- Flip chart-sized sticky notes
- Small sticky notepads (multiple colors)
- Copies of the photos, divided by tags (past, present and future)
- Tape
- Method to record small-group and large-group discussions (e.g., someone to take notes, audio recorder, video recorder, etc.)
- Large and small markers
- Refreshments
- Agendas



THE DELIBERATION SESSION

After participants sign in and get their nametags, let them wander around and look through the images.



The Past: From the “past” station, have individual participants select three photos that represent for them the past persisting. Break participants into three groups to share why they chose the photos they did. Together, have the groups decide which three images illustrate examples where the past will likely persist into the future (for better or worse). Have them place the three images on flip charts and explain in writing which features will persist and why.

The Present: Have each participant pick two photos (without removing them) from the wall of “present” photos that represent a sign of the times or capture a moment we’re in right now. Have participants write on sticky notes why the images best represent important characteristics of the present. Have participants write on one color for positive representations and on a different color for negative representations, and then have them post the note next to the selected picture. Invite the group to review the wall.

The Future: From the “future “ table, have individual participants choose three images that capture the future emerging and place each on the timeline representing when in the future they expect the subject in the image to be fully realized. The photo should also be placed above, on, or below the timeline based on how desirable or undesirable the depicted outcome is. Have them write on a sticky note what the pictures represent and share with the entire group their thinking.

Group Synthesis: Have participants discuss as a group the FCT subject as it relates to the past, present, and future.

The following are sample questions to guide group discussion:

- What have you learned about [the FCT subject]?
- What is missing? Surprising?
- What would you like to see happen related to [the FCT subject]?
- What are possible barriers to your desires for the future?
- What role does [the FCT subject] specifically play in reaching or inhibiting that future? What do you want from [the FCT subject]?

The participants should then report back the highlights of the smaller group discussion to the larger group.

Moving forward: Because the goal of the tours is to increase public engagement around your chosen FCT topic, it's a good idea to provide a handout on how the citizens can get more involved. You should also make clear how you will use the data the participants provided. Offer the names and contact information for any of the organizations or agencies mentioned during the tour, as well as for any other relevant players who may be hard to track down.

Evaluation: Soliciting evaluation feedback about the overall process will let you know what worked and what didn't for future FCTs. A link to a sample FCT evaluation is available in the additional resources.

Sample Deliberation Agenda

- 3:00 – 3:30 PM:** Staff arrival to set up photo stations.
- 4:45 – 5:00 PM:** Check participants in and ask them to begin looking at images.
- 5:00 PM:** Welcome and agenda
- 5:15 – 5:50 PM:** Deliberation—past
- 5:50 – 6:15 PM:** Deliberation—present
- 6:15 – 6:30 PM:** Dinner
- 6:30 – 7:15 PM:** Deliberation—future
- 7:15 – 7:25 PM:** Beginning of group synthesis—whole group discussion
- 7:25 – 7:40 PM:** Small group discussion
- 7:40 – 7:50 PM:** Report to the larger group a summary of the small group discussion
- 7:50 – 8:00 PM:** Closing remarks and evaluation of the tour discussion



GETTING THE MOST FROM YOUR FUTURESCAPE CITY TOUR

Throughout the tour you've gathered information about citizens' values related to your FCT topic. Perhaps you've recorded the sessions, taken observational notes, and photographed the sessions. You have an impressive conglomeration of multi-media data. How you process this data depends on your intended use of the FCTs and the specific goals of the intervention. For some, the effort may stop with the deliberative session, and for others, the FCTs may fit in to larger or ongoing engagement projects. Some FCT organizers may want to study the outcomes more rigorously or the method more systematically. Following are some thoughts and tips on how to get the most from that data and to integrate it with you or your organization's work.

Broadcasting the FCT Results: One consideration to make up front surrounds which audiences might benefit from learning about citizen views on an urban issue. In other words, who has a stake in better appreciating the ways a diverse audience approaches the problem? Carefully thinking through potential users of the results will help determine the best way to use the FCT data, as well as give clues to the level of analysis required.

One way to extend the value of the project is by displaying the photos and notes in a public exhibition space, such as a gallery, library, or a community art event. This is a great opportunity to engage the tour's experts and stakeholders, as well as other





members of the public. The exhibit can include a synthesis of participants' thoughts from the workbooks, a slide show of the photos, hard copies of the images with their captions, images or video of the tour itself, etc. You can provide mechanisms for visitors to add their thoughts to the photos and reflections as well. The FCTs can be a kick-starter to other civic dialogues.

An FCT is a great opportunity to strengthen public relations between cities and citizens or to garner some positive media coverage for an organization. Local television news channels and newspapers covered many of the FCTs conducted during the development stage. It's a good idea to send out a press release before the tour, in case a news crew wants to photograph or videotape the tour. Or, sending out a release with photos of citizens participating in various stages of the FCT immediately after the final deliberation might result in some media interest.

Additional Opportunities for Data Collection: There are both lightweight and intensive ways of collecting data in the three sessions. In addition to documenting the workshops and collecting the photographs, there are many additional potential data sources. The recruitment application, a post-tour evaluation, post-tour interviews, and session summary write ups all provide opportunities to gather and analyze information about participants and the potential impact of the FCT on their thoughts and behavior. Again, the level of detail and rigor depends on the aims of your FCT.

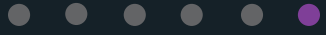


CONCLUSION

The past and the present are good indications of what tomorrow will bring. Yet the future will hold surprising displays of beauty, power plays, and unusual quirks. It will contain yesterday's architecture, today's legislation, and tomorrow's technology. City tours, combined with photography and deliberation, provide a novel way to engage concerned citizens to see this kaleidoscopic change in action and consider its possible impact on their cities' not-so-distant futures. They have the opportunity to question experts and stakeholders and to voice concerns and desires. Participants also obtain more knowledge and awareness to share with their communities and influence their civic activities. Such integration of values and expertise ideally will lead to more socially desirable urban futures.

**"The future is already here—it's just
not very evenly distributed."**

– William Gibson



ADDITIONAL RESOURCES

Tour Design & Implementation

FCT Website – The FCT website has a short video and photos with captions from past tours: <http://futurescapecitytours.org>

FCT Program: Additionally, the FCT program section of the CNS-ASU website (<http://cns.asu.edu/fct>) provides, upon request, samples of letters, agendas, presentations, tours, applications, promotional flyers, and evaluations from the pilot and other tours, as well as additional background rationale for FCTs.

Supporting Research

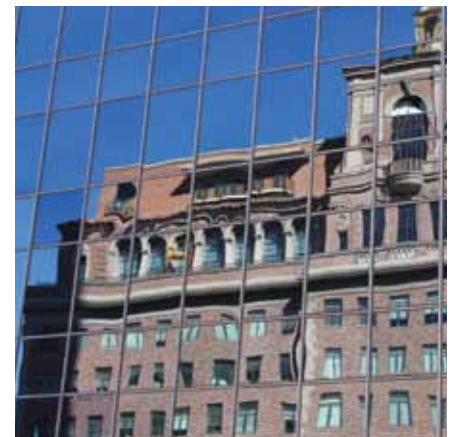
The Center for Nanotechnology in Society at Arizona State University (CNS-ASU) website – The CNS site includes information on research, theory, and rationale for public engagement and anticipatory governance, and includes a library of publications on these, as well as other issues related to responsible innovation. <http://cns.asu.edu>

Theoretical and Practical Resources

Barben, D., E. Fisher, C. Selin, and D. H. Guston. "Anticipatory Governance of Nanotechnology: Foresight, Engagement, and Integration." *The Handbook of Science and Technology Studies* (2007): 979.

Davies, Sarah R., Cynthia Selin, Gretchen Gano, and Ângela Guimarães Pereira. "Citizen Engagement and Urban Change: Three Case Studies of Material Deliberation." *Cities* 29, no. 6 (December 2012): 351–357. doi:10.1016/j.cities.2011.11.012.

Davis, Sarah R., Cynthia Selin, Gretchen Gano, and Ângela Guimarães Pereira. "Finding Futures: A Spatio-Visual Experiment in Participatory Engagement." *Leonardo* Vol 46, No 1. (2013).





Guston, David. "Building the Capacity for public engagement with science in the United States." *Public Understanding of Science*, (2013).

Hommels, Anique. "Studying Obduracy in the City: Toward a Productive Fusion Between Technology Studies and Urban Studies." *Science, Technology & Human Values* 30, no. 3 (July 1, 2005): 323–351. doi:10.1177/0162243904271759.

Rawlings, K.C. "Attending Tocqueville's School: Examining the intrapersonal, political, and civic effects of nonprofit board participation," *Administrative Theory & Praxis* (Forthcoming).

A Guide for Training Public Dialogue Facilitators (3rd ed.) – Published by Everyday Democracy in 2008, this guide offers numerous tips, methods, examples, and training exercises for facilitating effective dialogue and discussion. <http://everyday-democracy.org/resources/guide-training-public-dialogue-facilitators#.U30hZpRdV21>.

Organization Tools

Survey Monkey – Survey Monkey provides a customizable online survey tool. <http://surveymonkey.com>

Flickr – Flickr provides an easy-to-use public space to store photos. <http://flickr.com>

For More Information

If you have a question or need more information, you can contact the Consortium for Science, Policy, & Outcomes to reach an FCT researcher.

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