SydneyOlympicPark ⬭

Fostering Digital
Trust for Smarter Places

Case Study | July 2024

HELPFUL
PLACES

CONTENTS

Image: Mark Evans

ABOUT SYDNEY OLYMPIC PARK AUTHORITY

The area now known as Sydney Olympic Park is situated on the traditional lands of the Wann clan. For millennia it has been a place of gathering for the First Nations people, who came to Wangal Country to meet, celebrate, and trade.

Attracting over 10 million visitors each year, Sydney Olympic Park is home to protected ecosystems and diverse parklands with a thriving community of over 20,000 residents, workers and students.

The Park hosts sell out major events from live music to sport at our premier venues and is the home turf for major sporting teams.

Sydney Olympic Park Authority (SOPA) aspires to be an innovative, forward-thinking, and sustainable organisation that has trust with its community.

Sydney Olympic Park's 2050 Vision & Strategy sees the Park as a "living laboratory" for urban innovation – a smart place to trial new technologies and approaches which will benefit future generations.

SOPA is committed to meaningful and authentic engagement with its community, customers and stakeholders on decisions about the future of the Park and its ongoing development, activation and care.

In pursuit of realising these strong values, SOPA has developed its Community Engagement Framework, based on the International Association of Public Participation (IAP2) Core Values and Spectrum of Public Participation.

CHALLENGES

In early 2023, SOPA was set to trial [Dynamic Crowd Measurement (DCM)](#)'s advanced camera-based facial expression detection and data analytics technology in an effort to boost crowd safety during major events.

SOPA has a highly experienced team of staff, but there is a heavy reliance on the making of 'judgement calls' based on their experience and observations to manage crowded places.

New technologies, including crowd modelling systems, have identified opportunities to use data to inform more proactive decision-making for public safety.

This initiative was part of the [Creating Safer Crowded Places pilot](#), funded by the NSW Smart Places Acceleration Program.

The pilot was designed using a 'privacy by design' approach, with built-in measures and controls to make sure individuals are not identified.

To identify risks associated with the use of the DCM system, SOPA and the NSW Government conducted an AI Assurance Framework Assessment and Privacy Impact Assessment of the pilot.

These assessments indicated that despite the pilot's thoughtful design and clear communication, dialogue with community members about the technology was required to build and foster trust with the public about how the DCM system was to be used.

SOPA's experienced team of planners and place managers have had a successful track record of delivery, however

SOPA recognised that they needed to have formal methodologies and processes in place to engage with residents and visitors about the technology's use in public places.

The organisation needed a framework for proactive outreach in advance of the rollout of DCM's system.

As technologies have advanced in our urban environments, this is not an uncommon gap for planners and place managers.

In addition, there was no system in place to raise awareness of other technologies already in place across Sydney Olympic Park, and thus limited public knowledge about SOPA's existing innovative approaches and experimentation with other smart technologies.

SOLUTION

In late 2022, SOPA engaged Helpful Places to address these identified gaps:

- A needed communications framework to engage and include the public and build trust in technology deployments;
- A planning tool to help deploy and manage the technology; and
- An enduring design system for transparency to allow the public to be aware of technologies and data collection already place and to be deployed in the future.

Helpful Places was able to do this by utilising Digital Trust for Places and Routines (DTPR) for the deployment of DCM's technology, as well as other existing smart technologies at the Park.

DTPR is an open-source communication standard used by municipal governments and place management organisations to foster a more transparent and participatory approach to deploying technology in public spaces.

It's a way of making data collection more visible, as well as providing a mechanism for public feedback.

DTPR has seen increasing interest and adoption, including twelve deployments (and counting) across three continents.

The standard was highlighted in the American Planning Association's 2023 Trend Report for Planners, was a finalist for the 2023 World Smart City Innovation Award and is a featured initiative of the World Economic Forum's Future of the Connected World Global Action Plan. SOPA is the first organisation to deploy DTPR in the Southern Hemisphere.

SOPA worked with Helpful Places to collect information from its vendors and document its technology deployments using the DTPR standard.

This information was uploaded to the Helpful Places Platform, which helps manage and organise details about smart technologies in a standardised way that prioritises public communication and legibility by default.

> " DTPR really aligns with our commitment to engage the community. It's a great framework to make the invisible visible.

Susan Skuodas
Director, Place Management and Stakeholder Engagement

Living and Working in a 'Living Lab'

Understanding how technology is being used at Sydney Olympic Park

SOLUTION

This enabled SOPA to apply Helpful Places' methodology for embedding communication processes into technology projects, in order to advance public alignment and follow SOPA's Community Engagement Framework.

The methods used included:

- Installing DTPR signage in public spaces to provide notification and key information about nearby technologies.

- Sharing information through online channels such as newsletters and SOPA's public engagement site.

- Equipping frontline staff with the information they needed to communicate about these technologies and answer questions from the public.

- Conducting in-person intercept surveys to gather insights on how visitors and residents felt about the deployed technologies, including DCM's system.

- Leading a guided 'Tech Walk' to consult community members on the present and future use of technology at Sydney Olympic Park.

Did you know smart sensors help us water our park?

Scan the QR code to learn more.

go.dtpr.guide/simpact–1

Research & Development

WESTERN SYDNEY UNIVERSITY

Ecology

This sign uses the Digital Trust for Places and Routines communication standard available at go.dtpr.guide/github. The Icons and Taxonomy are licensed under Creative Commons Attribution 4.0 International (CC BY 4.0).

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Smart irrigation management to help keep Bicentennial Park cool

Water Efficiency   Western Sydney University

DETAILS   **FAQ**

Smart Irrigation Management for Parks and Cool Towns (SIMPaCT) is a technology research project that helps keep Bicentennial Park cool during increasingly hot summers. This is done by maximising the moisture plants release through the pores in their leaves – through a combination of environmental monitoring, machine learning, and irrigation optimisation – with the added benefit of reducing water usage.

Learn more about the project on the SIMPaCT website.

Feedback

How does this technology make you feel?

☹ 😐 🙂 😊 😃

Questions 1 / 5

Western Sydney University	Accountability	⌄
Sydney Olympic Park Authority	Accountability	⌄
Water Efficiency	Purpose	⌄
Ecology	Purpose	⌄

DTPR DEPLOYMENT

Physical and digital signs using the DTPR standard were deployed across the Park for four technology deployments:

- Dynamic Crowd Measurement (DCM) system
- CCTV cameras
- Public WiFi
- Smart irrigation management.

The DTPR signage provided key information including:

- Details about the associated technology, including what data the technology is collecting, who's collecting it, and what the data is being used for.

- A QR code on each sign linked users to a webpage on the Helpful Places Platform with further details about how the technology works and what it's used for. It also gave users the ability to provide feedback, and in some cases the ability to view some of the data.

For example, the webpage for the smart irrigation system linked to a map of the current warmest and coolest spots in the Park.

OUTCOMES

Understanding the public's concerns and level of trust

By using DTPR to inform and engage its community, SOPA was able to build public trust around the use of DCM's technology and mitigate the issues raised by the AI Assurance Framework Assessment and the Privacy Impact Assessment.

The foundational principle of this project was around building trust in technology by being transparent.

Just over half of community members surveyed were supportive of the DCM system after learning about it through the DTPR sign and webpage, expressing a desire to strike a balance between privacy and public safety. The remaining survey respondents were neutral or hesitant – rather than fully against – the use of the technology.

Concerns about the DCM system were primarily rooted in needing to understand more about how the data collected would be used, who would be able to access it, and how it would be protected from breaches. There were also worries that the technology could be used for more than the stated purpose (improving public safety during major events) in the future.

Throughout the public engagement process, visitors and residents also expressed a high level of trust in the Sydney Olympic Park brand and a willingness to consider the use of emerging technologies thanks to that pre-established trust.

Survey respondents identified the Sydney Olympic Park and NSW Government logos on the DTPR signs as an indication that the technology was being used responsibly.

Getting insight into the public's communication preferences

The majority of survey respondents were supportive of seeing more signage and transparency for technology at Sydney Olympic Park. An iterative approach to signage implementation was taken by gathering public input, via the intercept surveys, on messaging and design options prior to the full roll-out of signage for a technology. The feedback collected showed a clear desire for simple, friendly messaging with minimal jargon on the signs.

While commonplace technologies such as CCTV are already familiar to the public, it was more difficult for people to fully grasp the 'what' and 'why' in regards to emerging technologies, such as the DCM system and smart irrigation management. In particular, people wanted to know the business cases and rationales for the use of these technologies.

Supporting SOPA's innovation journey

The relevancy of a transparency approach to support SOPA's organisational strategy for innovation and smart technologies was recognised quickly in the early stages of its engagement with Helpful Places.

The team identified other technologies that also needed proactive communication and deeper levels of engagement – both to communicate about the collection of data in public spaces, and to highlight their utility for residents and visitors.

This helped SOPA begin to develop a process for compiling public-facing information about a technology that supports communications and engagement for its roll-out.
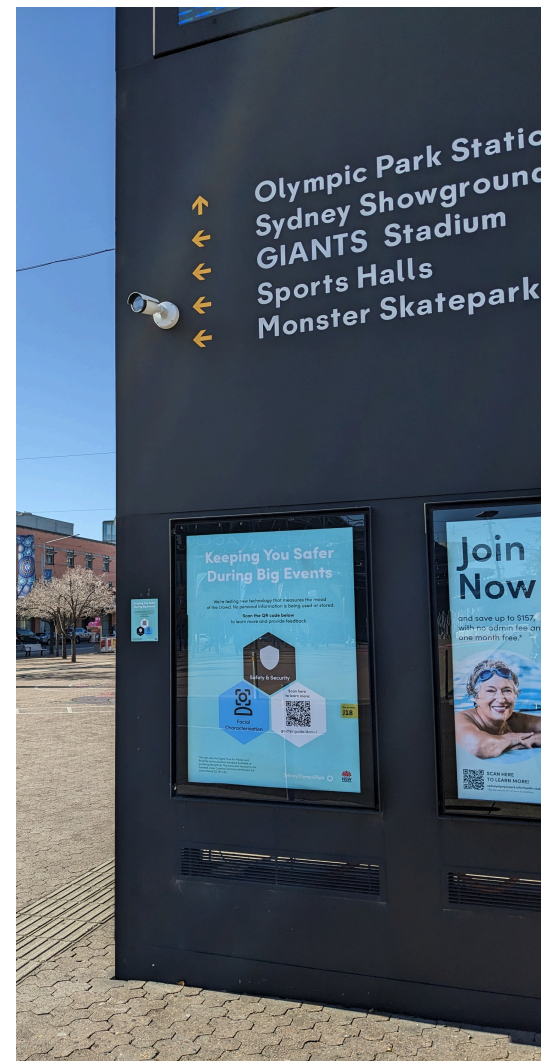
The DTPR deployment also provided a mechanism for introducing and testing SOPA's 'Living Lab' concept with the public.

This sparked the beginning of a broader, longer-term dialogue around technology and how people see themselves being involved in SOPA's smart places and innovation journey.

KEY RESULTS

- 9 individual technologies and data sources using DTPR across the DCM and SIMPaCT systems.
- Over 35 physical DTPR signs deployed, as well as digital signage across 10 kiosks.
- Over 140 people engaged in person through intercept surveys and a guided 'Tech Walk'.

Highlights from intercept surveys:

After receiving information through the DTPR system (sign and webpage), 66% of respondents were supportive of the technology they were being surveyed about.

69% found that the DTPR webpage helped them better understand the technology and what it does.

68% would like to see more DTPR signage at Sydney Olympic Park for other technologies.

NEXT STEPS

Embedding DTPR into SOPA's internal processes

As SOPA increasingly uses and supports experimentation with smart technologies, trust in these technologies will be crucial. To build this digital trust, people need to be informed about the use of technology and collection of data in the spaces they are in. Continued use of DTPR will enable SOPA to further build community buy-in to its innovative practices by making engagement an integral part of the technology piloting and deployment process.

To scale its use of DTPR, SOPA will need to modify its technology procurement process to incorporate the standard and capture the necessary information from vendors/partners right at the start. This will help identify early on the internal stakeholders who need to be involved in the planning, roll-out and public engagement phases for a technology deployment.

The organisation will also need to determine which types of technologies should be prioritised for earlier and deeper public communication and engagement, as well as the resources needed to do so.

How will SOPA determine which technologies are of most interest to their communities in the future? What is the prioritisation design for their digital infrastructure? Emerging technologies in particular will require additional effort to build public understanding and acceptance of their use.

It is also not practical or desirable to install signs for every single piece of technology in the Park. Rather, if there is an online inventory of technologies accessible to the public, signage becomes a communication tool used selectively for only some technology deployments.

Guidelines for when signage is required could be defined collaboratively with stakeholders, and would need to inform future updates to the signage section of SOPA's Urban Elements Design Manual.

Image: Declan Blackall

Expanding the use of DTPR beyond Sydney Olympic Park

There is now an opportunity for other organisations developing smart places in New South Wales to build upon SOPA's momentum and utilise DTPR for their own technology deployments.

By helping the public understand how data is used and providing a channel for feedback and questions, DTPR can help businesses follow the principles in the Smart Places Customer Charter.

As DTPR becomes more common across the state, the more effective it will become as a tool for communicating about smart technologies.

Deploying DTPR also provides the first step in building internal processes and capacity to better manage technology deployments by providing an easy-to-use-and-understand framework.

Its use creates dialogue and alignment across departments, providing a common language with which to understand what technologies are being deployed, what data is collected, and who is responsible – which, in turn, is the same as what can be used to communicate with the public.

By normalising the use of the standard – within complex organisations deploying technology, within technology vendors themselves, and externally with the public – DTPR provides an additional planning framework in the toolbox to steward, manage and grow communities in inclusive, informed and innovative ways.

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