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ARTS DATA IMPACT



## CultureHive Case Studies: Arts Data Impact

### Background and Project Partners

The Arts Data Impact (ADI) project was a collaborative project between The Audience Agency, three arts organisations, University of Ulster and Magic Lantern. ADI addressed how data-driven insight can best support arts organisations and have an impact on organisational change. This was delivered via consultancy and the employment of two data scientists-in-residence who developed software tool prototypes for the arts partners. The main objectives of the project were to:

- Test data driven decision making in arts organisations
- Generate insight into new business and organisational models as a result of data driven decision making
- Facilitate a step change in the sector towards a more open and transparent sharing of data for the benefit of the entire sector

**Arts partners:** The Barbican, National Theatre, English National Opera and The Audience Agency were uniquely placed to initiate this project, poised at a point of major CRM development, and able to contribute thinking and experimentation, as well as large and robust data-sets. The arts partners hosted the Data Scientist in Residence for six months, test drove proto-types and played a leadership role in the sector.

**Technology Partner:** Magic Lantern Productions provided the technical strategy and worked with digital agency We Heart Digital to develop and build the tools for the arts partners in collaboration with the Data Scientists in Residence. Led by Anthony Lilley, author of Counting What Counts, it is a long-established and leading digital media company.

**Research Partner:** Professor Paul Moore was the Principal Investigator for the ADI project. Co-author of Counting What Counts, he is Head of the Schools of Arts and Computing at the University of Ulster and recognised as a leading exponent of ethnographic methodologies in the arts space. His research is focused on both the creative industries and the ways in which theory and practice can be brought together in training and education.

**Outcome:** The project has resulted in prototype tools that contextualise how data can be used to enhance business decisions. The tools provide intuitive push button reports that deliver



insights about each organisations' data. It was not a long or arduous process to gain something real from using the tools. The idea was not to replace people's decisions with data but to support decisions within a data informed culture. The project's success has been less on what those decisions actually were but on the narrative around those decisions, i.e. how the data has been used internally to develop understanding, tell stories and drive cultural change. While the tools represent the technical success of the project it is each organisation's story about their experiences on the project, with the Data Scientists and their responding internal shifts in behaviour around data that is the real success.

## English National Opera

English National Opera is one of the world's most innovative and accessible opera companies with an international reputation for distinctive, contemporary and highly theatrical productions. They collaborate with creative talent from across the arts and stage more new productions and contemporary opera than any other UK opera company. Committed to opening up opera to new audiences and tackling the cultural or financial barriers that might prevent attendance, ENO is developing its digital and audience insight strategies. This project therefore represented a key opportunity to test a number of planned developments.

### Why did ENO want to be involved in the ADI project?

ENO wanted to achieve a greater understanding of their audiences to support planning decisions for their Senior Management team and Board. They wanted to explore new and innovative approaches to looking at data and ADI was also an opportunity to share experiences and insight with other arts organisations in London.

### What role does data play in ENO?

At the beginning of the project, the role of data was largely limited to monitor performance against revenue targets, and for benchmarking that performance against previous years or previous productions. There was a limited use of data as a means of gaining behavioural insights. Data analysis was largely limited to the Marketing, Development and Finance departments.

### What was ENO's perception of data? How has it changed?

ENO lacked information about their data, while the structures for understanding their data were limited with no real processes around the management of it. So while they have lots of

data this was stored within silos with no overview and limited access to anything that wasn't transactional.

At the close of the project in July, the company has become more open to talking about data, and those conversations are much more integrated between departments. This has partly been driven by changes in the business elsewhere, and also through staff engagement in the ADI project - both through identifying possible concepts for development, and in providing input and feedback into the final tool.

The Audience Spectrum terminologies, central to the tool, are familiar as a common language for audiences across Marketing, Communications and Development departments, and also increasingly across the wider organization. For example, audience segments are frequently referred to in planning meetings with the Artistic and Music departments. As a result, decisions and discussions are becoming more audience-centric, and the shape of the programme is a more balanced mix of works for different audience types. Marketing Communications planning is both more precise because spend is allocated according to the likely balance of customer profiles, and campaign creatives and digital content are developed with greater insight into the end user.

### **What kinds of data does ENO have?**

SRO is the ticketing database for ENO. It contains all transactions, bookers, events and booking information. It also has performance categories assigned to different performances and productions. The system is largely used by the Marketing, Box Office and Finance teams. The Development department use Raiser's Edge to store and track information about donors and fundraising. Data about digital engagement exists for the company website, social media channels and consumer email activity. Feeds for this information and some SRO sales information are used in a data visualisation tool called Qlikview which is licensed from the company's media agency to create a shared view of the impact of marketing activities on ticket sales.

### **What kinds of questions were ENO interested in exploring as part of the ADI project?**

ENO were interested in understanding the wider arts engagement of a particular segment of their audience and better understand the crossover of this segment between themselves and other cultural organisations. A key way of targeting a new audience would be for them to identify audiences who have not been to ENO but who have similar interests to those that already attend - the emerging demographic. The organisation were not concerned necessarily

with the data at an individual level but on the behaviour of the group (segment). They also wanted to explore the changes required within the organizational culture to become more data driven in the decision making process.

### **How did these relate to their overall strategic/business goals?**

ENO wanted to understand their audience as people not just customers, in order to understand their motivations to attend ENO, the types of work that different segments might be interested in and what might they engage with. Given their recent organisational changes this project was also a way to help inform decisions to support their wider goals as well as explore innovative ways to work with data.

### **What was it like having a Data Scientist in Residence embedded at the organisation?**

Having Data Scientists in Residence has been crucial in helping ENO address some of their big data challenges and getting engagement internally, particularly at the outset of the project as they were dealing with legacy systems and messy data. Having the data scientists available to go to unpick issues has been a valuable and validating experience. Most of their time was spent with the Marketing Department, who are the central department for digital and audience-related activities. Having them embedded in the department over a period of time meant they became part of the company, making it easier for members of the team with less knowledge about working with data to ask relevant questions as they went about their day to day work. Their presence over an extended period of time helped instil a data-driven culture, and allowed team members' confidence to build.

### **What kind of impact did their presence have on their way of working/organisational culture?**

Whilst data still sits firmly in the Marketing and Development departments, when it comes to engaging with data more widely across the organisation and its spread to artistic and scheduling teams, the tool and the presence of the Data Scientists has played a significant role in this. Now that the tool is live, that spread will continue as more applications for it are explored.

### **What did ENO learn about its data and the way that it could be used?**

The purpose of the tool was to help ENO understand their audiences better, not to target specific audience members. It is deliberately conceived to be flexible in its application so that

staff in a variety of functions can find uses for it to help answer questions that might support better decision making.

The tool uses data from Audience Finder to give an overview of the arts attendance of a specific audience segment. This is achieved by analysing ENO's audience' arts attendance across the organisations in the London Performing Arts data sharing cluster. For example, a typical search might ask the tool to identify all records in the Audience Finder database within the segment of 'Experience Seekers', separating those who have and have not been to ENO. The report will identify the other productions they saw and venues they visited in the same period, to give a picture of the segment's wider cultural engagement across London. The tool has contributed to building a picture of this audience, particularly beyond crossover of art forms, enabling them to understand the trends and cultural engagement behaviour of this segment.

### **Did the process undertaken change how data is viewed in the organisation?**

Research ideas were crucial given ENO had already done lots of work looking at data. However having access to someone who really knew how to work with data helped them to address some of their challenges to make the data actionable. The tool brought the research ideas alive and make it easy and quick to access, interpret and share information. Conversations with Professor Moore also helped put a better perspective on their challenges and how they might communicate those internally. Having regular moments for conversations throughout the project were practical and useful, especially in dealing with big data, which was new to them.

### **What is the longer-term impact of the Data Scientist and of the ADI project more generally?**

Culturally there was a significant amount of change within ENO during the period the project took place. Changes to funding, new business model development and senior staff changes all had an impact on the company needing to become more data driven and analytical. However, the presence of the Data Scientists and the project process also helped to support and embed those changes at different levels of the organization.

Undertaking the project and being able to provide data to support decision making and share with colleagues has been invaluable, making the organisation much more data driven as a result. ENO are talking about data a lot more - the simplicity of the tool and the way in which it has been built has helped that - with easy graphs as opposed to piles of spreadsheets - making the data much more accessible. It's quick and easy to share insights and audience

snapshots across the organisation and with the ENO board, with conversations taking place about the nature of audience behaviour not just customers as ‘financial units’.

### What can other arts organisations learn from their experience?

With more organisations joining Audience Finder all the time, they’ll be able to use the tool much more widely once they’ve got that context.

What words of wisdom would you offer other arts organisations who are wanting to make better decisions with their data?

Get started, get people involved and make sure that you focus on things that are manageable, measurable and useful to you. It’s easy to get overwhelmed by detail, or to start looking for answers to questions out of curiosity rather than need. Data is there to support your work - it shouldn’t take over from the work, or stop you from being creative. Think about a specific question you need to answer (‘who are the people who attend our organization?’, ‘what digital content works best?’), look for the data that can help you answer that question, and work out a process from there.