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O'Brien, D., Rees, G. and Taylor, M. orcid.org/0000-0001-5943-9796 (2022) Who runs the arts in England? A social network analysis of arts boards. Poetics, 92 (A). 101646. ISSN 0304-422X

https://doi.org/10.1016/j.poetic.2022.101646

Poetics 92 (2022) 101646

Contents lists available at ScienceDirect

Poetics

journal homepage: www.elsevier.com/locate/poetic

Who runs the arts in England? A social network analysis of arts boards

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ARTICLE INFO

Keywords:
Cultural governance
Social network analysis
Inequality
Brokerage

ABSTRACT

Recent research on cultural production has drawn attention to significant inequalities. This paper aims to unpack one possible explanation for these inequalities by focusing on the people with ultimate responsibility for arts institutions: the boards of directors. Using data from the UK's Companies House, it analyses the boards of Arts Council England's National Portfolio Organisations. It then "hops" to the other organisations with whom arts organisations also share board members, and their directors. While the network of NPOs is relatively sparse, with most organisations not sharing board members with any others, in the one-hop network the majority of these organisations are indirectly connected to one another. In addition to a large number of arts and cultural organisations, this network also contains a large proportion of film funding companies and financial services companies. The most central company in the network, measured by betweenness, is the Royal Opera House, followed by companies associated with significant tax advantages for their directors. Our results raise questions for the governance of culture, drawing further attention to its ties with financial institutions.

1. Introduction

In *2016 in Museums, Money, and Politics* (2018), performance artist Andrea Fraser draws attention to the power structures connecting political fundraising with boards of cultural organisations, and how those connections underpin inequality around the visual arts in the USA. Her concerns regarding entrenched power in affluent, predominantly white and male board members were amplified by Donald Trump's success in the 2016 presidential election, a candidate heavily connected to the boards of American arts organisations, while seemingly hostile to many of these artistic and cultural institutions and their stated goals. Fraser's findings have ramifications for the sociology of culture, arts management and cultural policy. Our findings on arts organisations funded by Arts Council England (ACE), which provides a public grant structure that explicitly advocates inclusive, egalitarian goals (ACE, 2010, 2020), in contrast to the laissez-faire cultural context prominent in USA cultural funding and policy (Lena, 2019), suggest Fraser's concerns may apply across a range of art sectors and funding structures.

Fraser's research has broad implications that have widened since publication. Inequalities of access to artistic and cultural professions alongside (and potentially entrenched by) the continued homogeneity of senior staff disproportionately affects people of colour, disabled and LGBTQ+ people, those from working class origins, and women. The disconnection between new social

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https://doi.org/10.1016/j.poetic.2022.101646
Received 8 January 2021; Received in revised form 30 November 2021; Accepted 12 January 2022
Available online 27 February 2022

movements such as Black Lives Matter and arts organisations with few staff of colour, and the uncertainties of organisational sustainability (see Brook et al., 2020 for a detailed overview), are just some of the many the significant difficulties likely exacerbated by COVID across the arts. These dynamics have brought the composition of boards as sites of influence and decision-making forward as a major area of practitioner and media interest (Higgins, 2021).

We aim to assess these strands through a longer-running tradition within cultural policy, arts management, and sociology of culture, examining the roles and composition of arts boards by first reviewing the literature on inequalities in the cultural sector and identifying the relative absence of work on boards to this subfield. We then discuss research demonstrating the importance of boards to artistic and cultural organisations, as well as debates over the governance of culture. These areas form the basis for the significance of our analysis, which focuses on publicly funded arts institutions in England.

More specifically, we follow Griffiths, Miles and Savage (2008)'s work charting the changing formation of elites governing the cultural sector and Ostrower's (2002) work on the close relationships between arts boards and the commercial sector, particularly banking and finance, in the United States. This suggests that power and influence are, in turn, closely related to inequalities within the art world for two primary reasons: first the composition of arts boards (ie inequalities in terms of *who* holds power and influence over arts organisations) and second the function of arts boards (ie their collaborations and commercial interaction with other sectors and the interests represented).

We then connect the arts boards literature to the literature on culture and inequality to aid constructing a means of measurement. The network of boards of directors of ACE's National Portfolio Organisations (NPOs), using administrative data from the UK's Companies House, charts the relationships between organisations, both direct and indirect, and we measure this in two stages. In stage one we show that governance of the arts in England is just as varied as the range of artistic and cultural practices, scale and sizes, and organisational forms, which are funded by ACE. Our results suggest there are few intersections in our picture of English arts governance.

The second stage of analysis presents a far more detailed structural picture. Here we find far fewer isolated arts organisations via indirect ties (boards outside ACE NPOs that directors sit on) demonstrating that financial companies are dominant players in arts boardrooms and are thus crucial to the composition of England's contemporary cultural elite. While the centrality of specific institutions, such as the Royal Opera House, is to be expected (Bereson, 2002), the connection between business, policy makers, and artistic and cultural organisations reinforces the concerns of art theorists (Fraser, 2018, Shaked 2021) as to the role of financial institutions in arts governance. Using boards, and social network analysis, also offers important new directions for the study of inequality within arts institutions and cultural policy.

1.1. *The problem of inequality in the cultural sector*

An extensive and longstanding literature describes inequalities within the consumption and production of culture. This literature demonstrates the patterns of inequality, and suggesting explanations and routes for change. Crucially, the level of institutional governance, for example organisations' boards, has been absent from literature on both production and consumption. However, both literatures on production and consumption are crucial to contextualise why boards contribute to the reproduction of inequalities.

The literature on cultural production makes clear that workforces are marked by significant overrepresentations, compared with the general population, of white men from middle class backgrounds (Brook et al., 2020, O'Brien, 2019, Alacovska, 2017, Eikhof & Warhurst, 2013, McRobbie, 2015, Nwonka & Malik, 2018, Saha & van Lente, 2020, Cobb, 2020, Dent, 2020, Wreyford, 2018, Yeh, 2018). In specific cultural industries, such as publishing, issues of gender are less acute, but issues of class and race are even more pronounced (Saha & van Lente, 2020). This pattern is echoed in museums and galleries (Brook et al., 2020). These inequalities are recognised as a problem by ACE, whose strategies have prioritised addressing workforce diversity (ACE, 2010, 2020).

There are many reasons for these workforce imbalances. Three examples, race, class and gender, are useful to illustrate this point. For race and ethnicity, we see powerful narratives of what will, and what will not, be successful in cultural markets (Saha, 2018), along with outdated stereotypes associated with what it is to be a Black, Asian or Minority Ethnic creative worker (Nwonka & Malik, 2017). Similar stereotyping is part of barriers to entry for those from working class social origins, alongside lack of access to financial resources (Friedman et al., 2016, Friedman and O'Brien, 2017). In the case of gender, stereotyping, the gendered individualisation of caring responsibilities, and access to professional networks, are crucial in accounting for the lack of women in senior positions (Dent, 2020; Gill, 2014).

While there are distinct theoretical foundations and modes of analysis associated with the study of race, class, and gender inequalities, the previous examples also show important factors in common. Most notable is the set of assumptions and perceptions about a cultural 'fit' with organisations or markets (Saha & van Lente, 2020, Brook et al., 2020). This point is important when considering the role of boards in setting organisational direction, a point we discuss in the following section.

Although much has been done to understand the dynamics of inequality in cultural work, there are areas without the same levels of engagement. While there are important interventions on commissioning and decision-making processes (e.g. Childress, 2017, Friedman, 2014, Saha & van Lente, 2020) these are focused on senior management and below. Arts governance, although a core topic of cultural policy (O'Brien 2014), has not been central to research on inequality. Two exceptions come from Alexander (2018) and Griffiths et al. (2008).

Alexander identifies the shifting demands placed upon organisations by cultural policymakers over the past thirty years. In response to these demands, cultural organisations have reconstituted themselves to be more market-focused, with the attendant shift in institutional governance arrangements and curatorial and programming priorities. The thrust of the analysis here is that cultural organisations have lost elements of their autonomy from the state, and have also become more business-like.

This view of the changing nature of cultural organisations is a long-running area of debate (Hesmondhalgh, Oakley, Lee & Nisbett, 2015 and Hewison, 2014 give detailed summaries). However, the *mechanisms* for the change in orientation, for example via senior staffing decisions or organisational governance arrangements, have been given less attention.

Here, the work of Griffiths et al. (2008) is crucial. Analysing the non-departmental public bodies governing arts, culture, and sport in England, they stressed the complexity of the changes in cultural governance. Rather than a shift from autonomy to state control, they stress a longstanding close relationship amongst those from a 'gentlemanly' upper class characterised by elite educational trajectories and associations with private members' clubs. While the interpolation between gentlemanly elites, the state, and the arts sounds a note of caution for analysis claiming long-term transformations in England's cultural field, Griffths et al. demonstrate important changes within the composition of that elite. In doing so they support Alexander's concerns over the reorientation towards business practice and market ethos within the cultural sector. While there has been 'no simple 'marketization' of cultural initiatives' (207), the composition of cultural governance has shifted, with representatives from business and the civil service taking their place alongside fewer aristocrats and academics.

This understanding of the changing composition of the governance of culture in England prompts two questions: What is the current composition of cultural governance? How, if at all, has this changed in the decade or so since Griffiths et al. (2008) analysis? In turn, these questions underpin a broader question, about the impact on arts governance, in exactly the way raised by Fraser's (2018) study of the interconnections between wealth, politics, and power in the art world. To answer these questions and to understand these interconnections in England, we now turn to focus on the boards of arts organisations.

1.2. Why do boards matter?

Boards of directors have been a focus in management studies, and in social network analysis, for at least a century (Cadbury, 1914; Lynch, 1914). Although boards take various organisational forms, they are united by the function of governing organisations. This governance tends to have finance as its primary focus. In for-profit organisations, boards are responsible to shareholders, and are responsible for approving annual budgets and ensuring the long-term financial stability of organisations. Boards are also responsible for setting the broad strategic direction of organisations, and for appointing (and, potentially, firing) chief executives. As such, they are crucial in setting the context for the inequalities research has observed in both workforces and, as a result of programming decisions, audiences.

In addition to having relationships with the organisations they govern, boards also have relationships with each other. Here, we focus on *board interlock* (Burt, 1980; Chu & Davis 2016). This is when two organisations share a board member or members. Board interlock provides the foundation to map the overall governance of the state-funded cultural sector.

Board interlock is also important in practical ways, conferring benefits to individuals and organisations. Organisations benefit from board members in two main ways: board member experience can improve a firm's reputation, and board members with stronger network positions can provide greater access to information and resources. A key priority for organisations is to have high-quality board members. For some organisations, one marker of such quality is sitting on multiple boards, since having ties to other important organisations improves an organisation's reputation and is a signal of legitimacy (Mizruchi, 1996). Someone with desirable characteristics - such as experience in financial management - is likely to be approached by several organisations, and having more experience of serving on boards in turn increases their desirability.

This has the net effect of increasing inequalities in board membership. Not only are there Matthew effects (Merton, 1968), where people with experience of board membership tend to do more of it, but the perceived desirable characteristics that make people attractive as potential directors are associated with further dimensions of inequality. For example, as far back as 1971 Mace (1971) observed that "Here in New York it's a systems club. They are all members of the Brook Club, the Links Club, or the Union League Club. Everybody is washing everybody else's hands." (quoted in Mizruchi, 1996: 279).

Further evidence comes from Westphal and Milton (2000). They investigate demographic minorities in the US, introduced with the framing that "boards have traditionally been viewed as a homogeneous group of elites who have similar socioeconomic backgrounds, hold degrees from the same schools, have similar educational and professional training, and, as a result, have very similar views about appropriate business practices" (2000: 366). Where minorities are present, their effectiveness depends on their role on *other* boards as a marker of legitimacy. Where individual minorities are on boards without interlock, they tend to have lower levels of organisational influence.

Overall, the literature suggests boards of directors can be less diverse than the organisations that they govern. This is partially because the boards are senior appointments, and partly because the importance of networks and networking makes membership highly exclusive. Inequalities are thus perpetuated.

1.3. Boards in the arts sector

Westphal and Milton's (2000) work reflects the more general trend to look at for-profit corporate businesses. The broader literature on corporate boards, about who boards *are* (Hermalin & Weisbach, 1988; Van der Walt, et al., 2006.; Raheja, 2005), and what they *do* (Amin, Chourou, Kamal, Malik & Zhao, 2020; Lorsch & Young, 1990), has a number of implications for the study of boards in the cultural sector. These include analysing their makeup in relation to diversity (Terjesen et al. 2016, Adams, de Haan, Terjesen & van Ees, 2015), and their relationships with the staff at the organisations they govern. At the same time, arts organisations are distinctive from typical for-profit organisations, with accompanying distinctiveness in board composition and behaviour. They have two missions: maintaining a high-quality artistic programme, and organisational stability and sustainability. These two roles are often narrated as being distinct, and potentially in tension with each other. Arts organisations are traditionally seen as more financially vulnerable (Radbourne, 2003), and therefore have different approaches to caution and risk-taking.

Boards of arts organisations, particularly in England, are not always boards of *directors,* as opposed to trustees. At the time of Carty, Bryan and Murch (2017) review of governance in the arts, 79% of NPOs were limited companies with charitable status. Reform of charity and company law has meant that there are several different legal structures that arts organisations now take, but the majority of organisations are governed both by a board of directors (overseeing the company) and by a board of trustees (overseeing the charity). In this section we treat directors and trustees interchangeably, while recognising that different structures imply different roles.

Carty et al. (2017), based on a survey of directors of English arts organisations, find the key priority for arts boards is fiduciary responsibility. Specifically, the key agenda items for directors are fundraising, setting long-term strategic priorities, and advocacy. This is reinforced by Turbide, Laurin, Lapierre and Morissette (2008), who draw on Bertrand and Turbide's five traditional roles of boards (2007). These include reviewing institutional missions and strategic planning, defining long-term objectives, identifying threats, understanding needs of stakeholders, and assessing risks. In their case, in aiming to understand how arts boards respond to financial crises in Quebec, they find that, relative to business and enterprise, "the exercise of accountability is generally less structured" (8).

Exactly what arts board members *do* varies in different contexts. Radbourne (2003) interviewed 12 board chairs and general managers of arts organisations in Australia. Here arts boards were charged with thinking strategically, recruiting the right CEO, understanding legal duties, and being involved and active.

This focus on strategic thinking and governance can be contrasted with Ostrower (2002), who undertook extensive fieldwork in four (anonymous) institutions in the US, the largest museum and opera house each in two different cities. She found that fundraising was a crucial part of the activity, with board members expected to recruit new donors and keep existing donors warm. They were also expected to contribute major donations themselves.

These issues bridge what directors *do* and who they *are*: if one role of directors is to donate large sums of money to the organisations they govern, they need to be wealthy. This issue is not as explicit in Dubini and Monti (2018), whose focus is on Italian opera houses. They suggest a well-functioning board is instrumental to good relations with stakeholders and donors, and is a means for riding out or avoiding economic shocks. While Ostrower's work reflects the particular setting of the US funding and cultural policy system, the importance of boards to arts organisations' funding is a global issue.

Ostrower's participants are candid about the expectation that they would donate significant sums to the organisations on whose boards they sat. These expectations are possible because of who the trustees are. Finding that "board composition changes, but it remains exclusive with respect to class" (2), she finds that 96% of the trustees of the boards she studies are millionaires, between 74%–96% per board are multimillionaires, and more than half had annual incomes of more than $1 million. While 64% were men, which was lower than the equivalent figure for corporate boards, she found that a large number of women trustees had taken on the roles after their husbands – previous trustees – had died, and women trustees generally were neither in paid work nor retired, although those in work were generally in business or finance. By contrast, the majority of the men were in work, and in senior roles in business or finance such as CEOs or chairs. The majority of trustees were White; some were Hispanic or Black, and none were Asian, while the organisations were both in cities where less than half the population was non-Hispanic White. Crucially, in the context of our discussion of the inequality and culture literature, the process of recruitment was largely self-regulating, with trustees recruiting themselves and people culturally similar to themselves.

This is reinforced by Banks (2017), who investigates the most prominent "mainstream" and African-American museums in New York City: the Metropolitan Museum of Art (the Met), and the Studio Museum in Harlem (SMH). Banks demonstrates inequality between her case studies. Although both organisations have large majorities of elites on their boards, the Met is mostly a White elite and the SMH is mostly a Black elite. The Met's White elite has 8 billionaires, while the SMH's Black elite does not have any.

While elite social closure in the arts (as demonstrated by Ostrower, 1998) is one cause of the narrowness of arts boards, it is not the only one. It is notable that the accounts of extreme wealth on boards are drawn from the US. Participants in studies in other countries also express concerns about the narrow social groups from which directors and trustees are drawn. Azmat and Rentschler (2017) interview several in Australia, finding a general attitude that boards should be (more) diverse in terms of gender and ethnicity, and that board members from historically marginalised groups can experience discrimination.

One of Carty et al's participants puts the issue more directly, referring to "a crushing lack of diversity at board level" (5). In an English context, the two issues in tension are that "[s]everal of the larger scale organisations report that gender and cultural diversity can usually be achieved" (24) and that "At the extremes, boards are `closed` groups recruiting from a narrow pool of `insiders` subtly or otherwise excluding those who are different…" (24). This reflects two issues: first, that boards tend not to include people who are not from middle class backgrounds, nor disabled people; second, that trustees are drawn from a very narrow group.

These inequalities are at least partly a consequence of the processes through which people become board members in the first place. For large arts organisations in Queensland in the 1990s, Radbourne (1993) summarises that "the typical board member is recruited to the board by an invitation from the chairperson" (215); Ostrower explains that, for her four institutions, trustees are the ones who recruit new trustees, and they aim for people who are similar in income, taste, and other preferences. In the UK context in which we work, Carty et al. explain that the process largely comprises "a combination of advertising and appeals to professional networks to source new trustees", where those professional networks "appear to consist of a limited pool of individuals perceived to have the `right` skills and experience", that "are not porous or 'open' to others from different social or cultural backgrounds" (28). While the exact details of appointments to boards differ, the overall mechanism – where the majority of board appointments initially consist of informal approaches from existing board members who know the proposed new board member, either personally or by reputation – is similar in the different national contexts.

This work, spanning different national contexts and different time periods, provides two crucial insights in relation to the literature on inequalities in cultural work. The first is in relation to the elite character of board members. In the US context in which Ostrower and Banks write, board members' eliteness is most visible in relation to their wealth and income, while this appears to be more muted in the UK and Australia.

The second, however, relates to the other industries in which they work. Ostrower's insight that the majority of board members in work are working in banking and finance illustrates the value of these sectors to the arts sector: arts organisations with ties to banking and finance have greater access to wealthy people who may be interested in donating. These ties are also potentially beneficial to the banking and finance sectors. Across two papers, Campa & Zijlmans, (2019a, 2019b) demonstrate the importance for engaging in support for the arts across a large number of major European financial firms, both showing that explicit support for arts organisations is viewed and perceived as part of a corporate social responsibility strategy, particularly when it is communicated through social reports (2019a), and that support for art-based initiatives is associated with stronger corporate governance structures (2019b). This can be interpreted by a number of ways, which the authors acknowledge. Engaging in support for the arts can be used as a signal amongst financial organisations that they are more socially responsible, while also using their influence on arts organisations as a means to manage their reputations and mitigate against criticism. This also extends to arts organisations' relationships with other institutions, most prominently in fossil fuels (Evans, 2015). While these relationships are not limited to shared board membership, with corporate sponsorship being the most visible form of other industries' relationship with the arts, shared board membership is a mechanism through which industries including finance can benefit from their relationship with arts organisations.

This final point connects our summary of the literature on arts boards back to the broader context of inequality in the cultural sector. There are two issues at stake: first *who* is represented on arts boards; and second the consequences of that representation. Given the roles of boards in the arts are primarily governance and fundraising, and that the existing literature suggests board members are disproportionately older, white, and wealthy, their influence on financial decisions may have consequences for both workforce and programming diversity, as well as individual board members willingness to offer sponsorship or board members organisations' desire to be associated with specific artistic practices (as was Fraser's 2016 concern).

2. Data and methods

We have shown the importance of boards, in terms of the specific literature on arts governance and in terms of the connections to the literature on inequality. Who, then, are the board members of arts organisations in England? In order to investigate this, we start with the organisations funded by ACE as its national portfolio. The portfolio consists of the different art forms supported by ACE: dance, music, theatre, literature, and combined arts. National portfolio *organisations* (NPOs) are organisations that are regularly funded by ACE: that is, they receive an annual sum of money each year over the period 2018–2022, without needing to apply each year. NPOs range in annual support from £40,000 per year (several smaller organisations) to £24 million per year (Royal Opera House).

Not all NPOs are companies in their own right. Some organisations are charities only, and are not limited companies. In addition, some NPOs are branches of much larger organisations. Several local authorities and universities run museums, which are part of the national portfolio, but their boards govern the entire organisation rather than the museum. NPOs that are not companies, or are parts of larger organisations, are excluded from the analysis. The remaining sample consists of 735 of the 829 NPOs. The majority of these are also registered as charities with the Charity Commission. As we focus on companies, we use the language of directors rather than trustees.

The national portfolio does not encompass the arts sector in England. It does not include large-scale, profit-making commercial theatre, such as on London's West End; or small-scale grassroots activity. It is, however, a clearly-delimited sample of organisations to work with; biases derived from missing data in network analysis are very different from those using other forms of data, such that taking a limited sample of a broader dataset, rather than a complete sample of a smaller dataset, would have major implication for network structure (Kossinets, 2006).

2.1. Data extraction

We extract data from Companies House—England and Wales' public record of registered companies—via its Application Programmable Interface (API, see https://developer.company-information.service.gov.uk/api/docs). Using a list of unique company numbers for each of the 735 NPOs in question, we queried each company's Standard Industrial Classification (SIC) codes and their list of directors on October 19 2020, using the ukboards Python package developed for this project (Rees, 2020). We then constructed a bimodal network where each edge connects different types of entities (nodes), in this case linking directors to companies. Having extracted this network, we can then project unimodal networks, in this case networks of only companies where edges indicate board members shared between two company boards, or only directors, where edges represent boards both directors sit on.

This is illustrated in Fig. 1, an example connected component from the network. This connected component consists of three companies (shown as black circles), and their directors (shown as grey triangles). The first panel shows the bimodal network, where edges connect directors with companies; the second shows the unimodal projection where directors are connected to directors, while the third shows the unimodal projection where companies are connected to companies.

The companies have different numbers of directors: the company denoted by the top circle in the left panel has five, while the company denoted by the bottom left circle has eleven. Most directors are only on a single board, but one director is on the board of all three companies. The director on the board of all three companies is denoted by the grey triangle connecting all three black circles. It is not necessary that the network is connected, as the above one is: some companies do not share board members with any others.

The second panel shows the projection to directors, where all directors on each board are connected to each other; the third shows

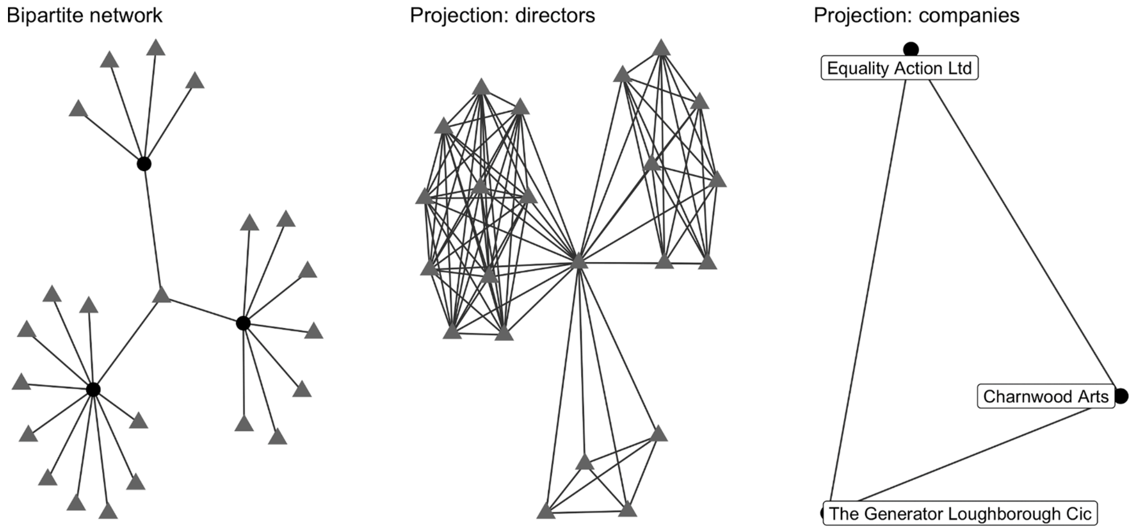

Fig. 1. example component.

the projection to companies, where all companies that share board members are connected to each other. As all companies have at least one board member, and most have several, our network visualisations are of the bimodal projection to companies, for simplicity.

We extend this work through the use of *hops* (Heckathorn & Cameron, 2017). We call this initial network the NPO network, as the list of companies is equivalent to all NPOs that are companies in their own right; we then hop to all the other companies on which the board members in this NPO network sit, such that the network incorporates these additional companies and their directors, which we call the *one-hop* network. If boards of NPOs are only connected indirectly – for example NPO A and NPO B each have a board member on the board of non-NPO C – this will be captured in the one-hop network, but not the NPO network. We further project this network to networks of companies and of directors, as for the NPO network.

The one-hop network of companies comprises two key types of company: NPOs, and the companies to which they are connected. This allows us to project this network a second time, generating a network of NPOs which includes indirect ties where board members from two NPOs each sit on the board of a third company.

This sampling approach therefore provides us with five projected networks: of each of companies and directors at both the NPO and one-hop levels, and a network of NPOs incorporating indirect ties. This allows us to investigate the most central directors amongst NPOs, the most central directors amongst a broader arts infrastructure, the most central NPOs incorporating only direct ties, the most central NPOs incorporating indirect ties, and finally the most central organisations in the broader network, whether NPOs or not.

2.2. Analysis

The first stage of analysis is descriptive statistics of the networks, focusing on the number of components, and the distribution of the sizes of these components - the number of isolates, dyads, and particularly the size of the largest connected component.

Having done so, we analyse the distribution of SIC codes in the networks. By construction, the NPO network should consist of arts organisations, but the one-hop network will be more diverse, as it incorporates all the other companies with which NPOs share directors. We examine both the overall numbers of different industries in the network, and their overrepresentation relative to the number of companies with those SIC codes in England more generally. We calculate overrepresentation as the fraction of companies with that SIC code in the network, divided by the fraction of companies with that SIC code amongst all businesses, drawing on data from the Inter-Departmental Business Register (IDBR) limited to England & Wales to ensure a comparison that is as accurate as possible (Office for National Statistics, 2020). In the below equation, we define nodes as **V**, each SIC code as **SIC**, the sample of nodes in the relevant network as **sample**, and the sample of nodes in the Inter-Departmental Business Register as **IDBR**.

$$Overrepresentation\ _{SIC}^{IDBR} = \frac{\Sigma\left(V_{SIC}^{\text{sample}}\right)}{\Sigma\left(V^{\text{sample}}\right)} \Bigg/ \frac{\Sigma\left(V_{SIC}^{IDBR}\right)}{\Sigma\left(V^{IDBR}\right)}$$

We then analyse nodes within the networks, calculating the degree and betweenness centrality of directors and companies. We can therefore estimate whether there are any nodes in particularly powerful bridging – or gatekeeping – positions in the network, or whether the distribution of measures of centrality is more even. We focus on these measures, where degree is the number of other nodes each node is connected to, and betweenness is a measure of the number of shortest paths between pairs of nodes that pass through each given node. For this reason, we focus particularly on betweenness centrality.

We also consider betweenness clustering. This measure groups sets of nodes by extracting edges that are of greatest betweenness from a connected component, and what partitions of that component are left, until no edges remain (Girvan and Newman, 2002). It is a helpful way of also seeing how groups of nodes, rather than just individual nodes, provide bridges between clusters of nodes that would otherwise be disconnected from another significant portion of the network.

The distinction is illustrated in Fig. 2, which is a component from the NPO network, projected to companies. Here, nodes are shaded according to their degree, sized according to their betweenness, and shaped according to clustering. The nodes at the edges, connected to one other node and never part of any shortest paths between any other pair of nodes, are both smallest and most lightly-shaded; however, two nodes may be of the same degree but have different betweenness. For example, towards the bottom left, New Adventures has lower betweenness than the Young Vic: the Young Vic is part of shortest paths between both New Adventures and Gecko Theatre and all other nodes, while New Adventures is only part of shortest paths between Gecko Theatre and all other nodes, hence the Young Vic being denoted by a larger diamond. There are four distinct clusters: the three nodes towards the bottom left form a cluster, as do the two nodes towards the top left. The largest cluster is towards the centre, with Birmingham Royal Ballet, East London Dance, Stopgap Dance Company, and Improbable; the four nodes towards the right constitute the final cluster.

This methodological approach, addressing both sampling and centrality measurement, allows us to do several things. First in terms of sampling, it allows us to map the overall network of boards of directors in the National Portfolio, establishing which companies and directors are connected to which, and how much overlap there is between boards. Second, also in terms of sampling, it allows us to establish how much many NPOs are indirectly connected to one another, via a third (non-NPO) company. Third, it allows us to measure the prominence of other industries in the one-hop network, through the boards on which NPO board members also sit. Fourth, it allows us to identify which companies and directors are in the most central positions. This applies both to NPOs within the broader network, and to any organisations to whom NPOs are connected. Analysis is in the statistical programming language R, with network analysis in igraph (Csardi & Nepusz, 2006), and visualisations in ggplot2 (Wickham, 2016) and ggraph (Pedersen, 2021).

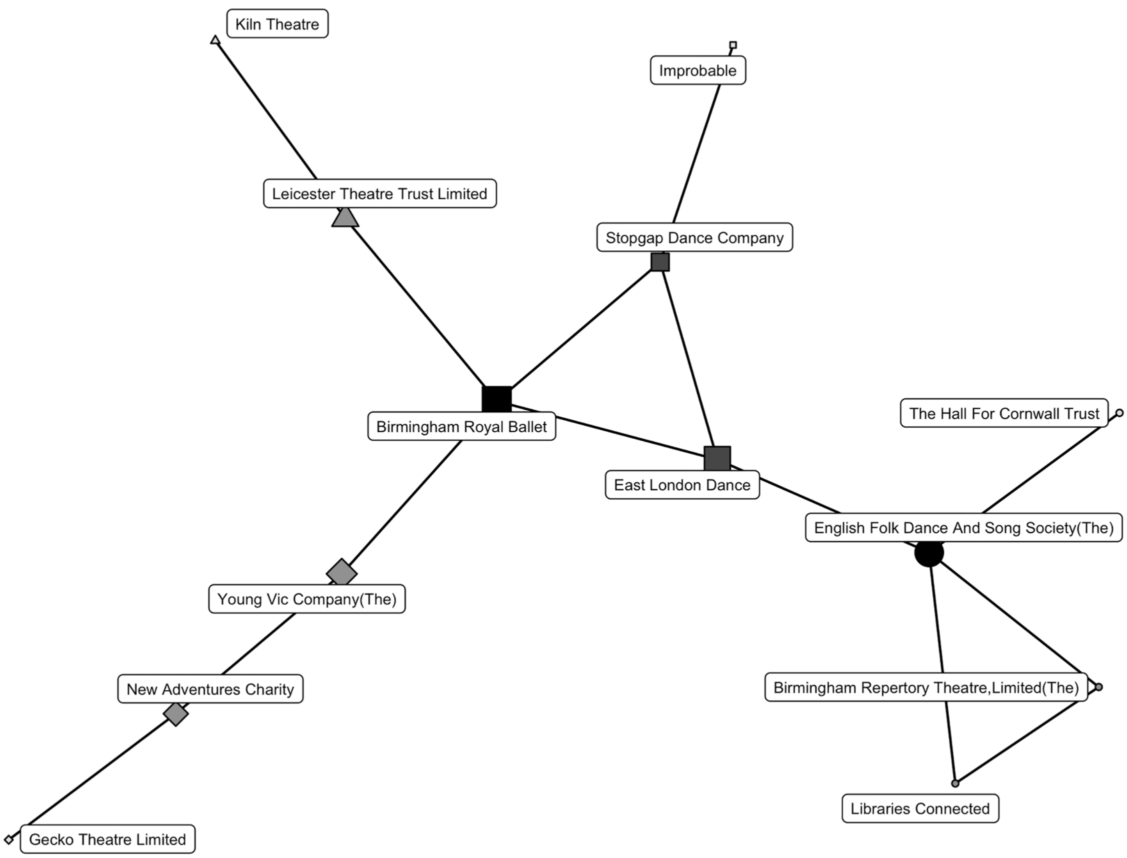

Fig. 2. Example component, with nodes shaded according to degree, sized according to betweenness, and shaped according to clustering.

3. Results: NPO network

Fig. 3 shows the network of companies in the NPO network. Each node is a member of ACE's national portfolio. Where two nodes are connected, they share at least one board member.

A large fraction of NPOs do not share directors with any other NPOs. 424 out of the 735 nodes are isolates. A further 106 nodes form 53 dyads (connected pairs of nodes). The largest component only has 4% of companies in it. There are few shared board members within the NPO portfolio companies, and with such a sparse network measures of centrality and betweenness are less informative than

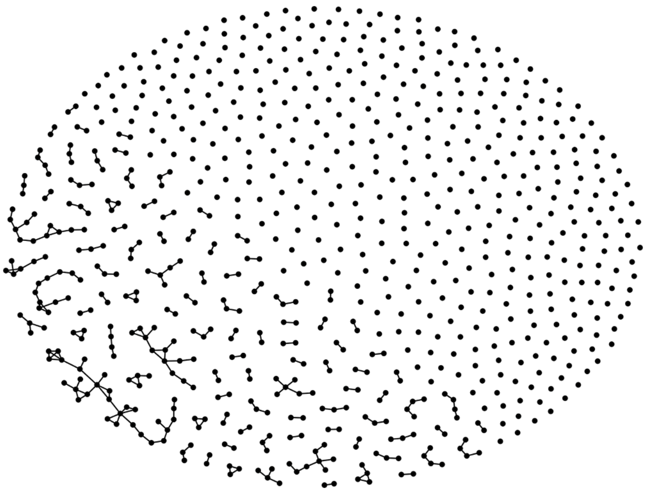

Fig. 3. NPO network (companies).

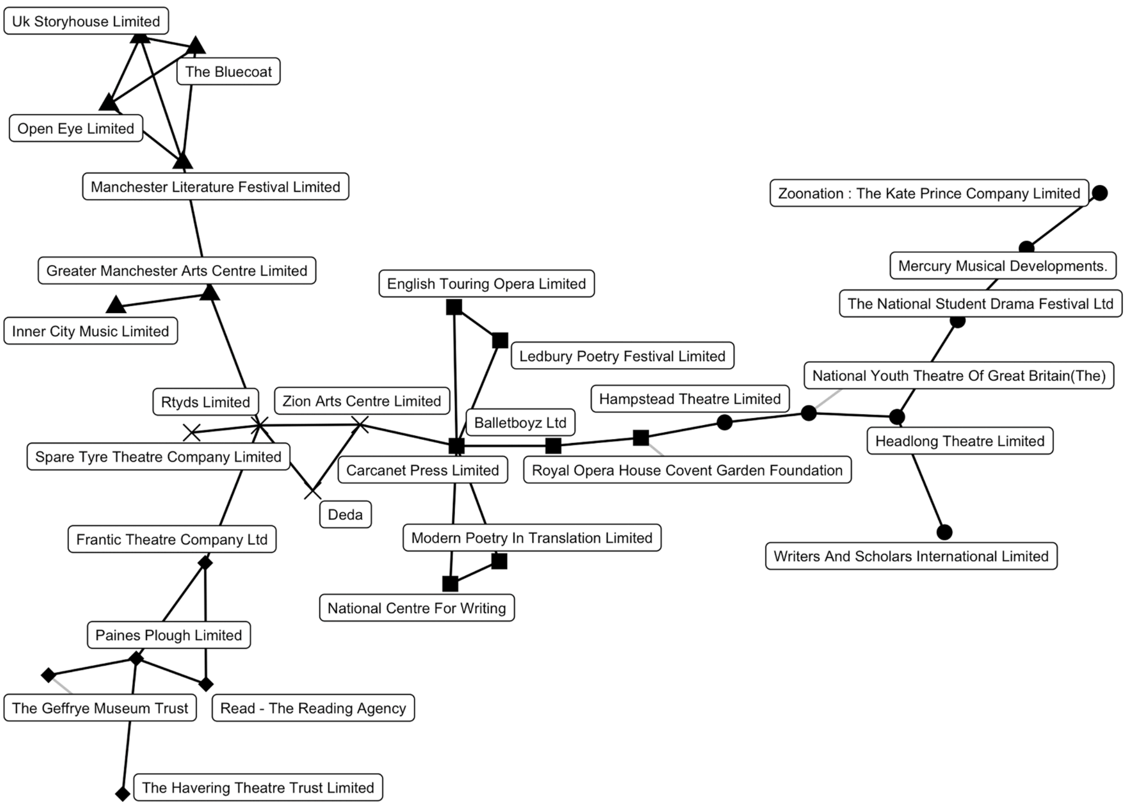

Fig. 4. Largest connected component, NPO network.

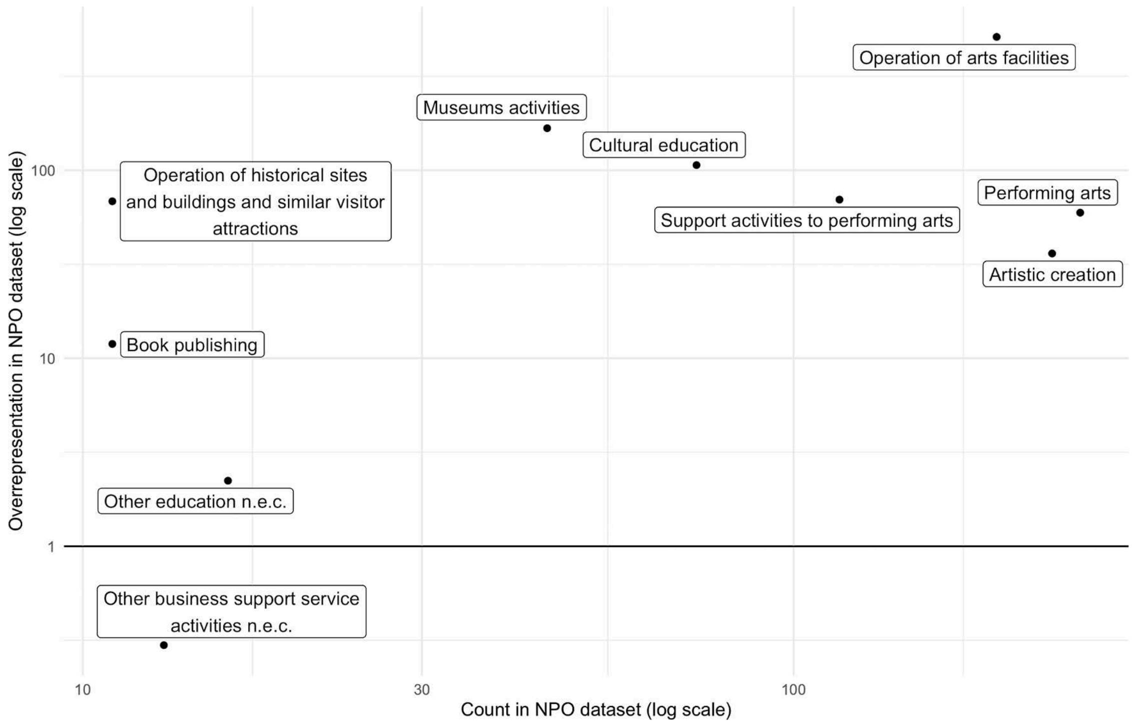

Fig. 5. Count and overrepresentation of SIC codes (NPO network).

in a more connected network.

The largest connected component is towards the bottom left corner of the diagram, containing 29 organisations (around 4%). This component is visualised in Fig. 4.

This component, which consists of five betweenness clusters, illustrates some of the relationships between NPOs. Towards the top left of the plot is a betweenness cluster of institutions based in the North West of England, representing a range of different art forms, denoted by triangles. Each of these organisations is connected to each other by a single board member (Peter Malcolm Mearns). The cluster denoted by crosses (×s), constituted of nodes from London, Derby, and Manchester, bridges this North West cluster with a range of clusters largely constituted of performing arts organisations based in London. The first crucial bridge is between Zion Arts and Carcanet Press, both Manchester-based organisations, where Carcanet Press is linked to four London-based organisations; these organisations form a bridge between the two clusters on the right side of the plot, and the three clusters on the left hand side of the plot. The two triads which include Carcanet Press comprise sets of three NPOs with a single shared board member. The second is between the Regional Theatre Young Directors Scheme (RTYDS), which is based across London and Manchester, and the Frantic Theatre Company, a touring theatre company with offices in London. This bridge links the crosses cluster with other organisations with London offices. Those crucial betweenness bridges link companies outside London to clusters based in London, suggesting how London's governance is significantly connected even at the NPO level.

Fig. 5 shows the classification of each of the NPOs, reporting both the count in the dataset (left-to-right), and overrepresentation relative to Companies House in general (bottom-to-top). Both of these are reported on logarithmic scales. As expected, by far the most common industrial categories are those to do with the arts, such as cultural education, museum activities, and book publishing. While the most common categories are performing arts and artistic creation, the most overrepresented relative to the distribution of businesses in the country is the operation of arts facilities – an NPO is more than 100 times as likely to be classified as that than any random business.

3.1. Results: one-hop network

The one-hop network consists of all the companies and board members in the NPO network; the other companies those board members sit on; and the board members of those additional companies. Table 1 summarises the differences between the networks.

We project three networks from this broader network: of NPOs, of companies more broadly, and of directors. We present results from each of these in turn, starting with the network of NPOs incorporating indirect ties.

Table 1
Descriptive statistics.

	NPO	One-hop
Components	520	246
Density (overall)	0.025%	0.0052%
Density (largest component)	0.63%	0.0061%
Nodes (bimodal, overall)	7211	45,617
Nodes (bimodal, largest component)	320	39,350
Nodes (companies, overall)	735	7093
Nodes (companies, largest component)	29	5883
Diameter (largest component)	28	48

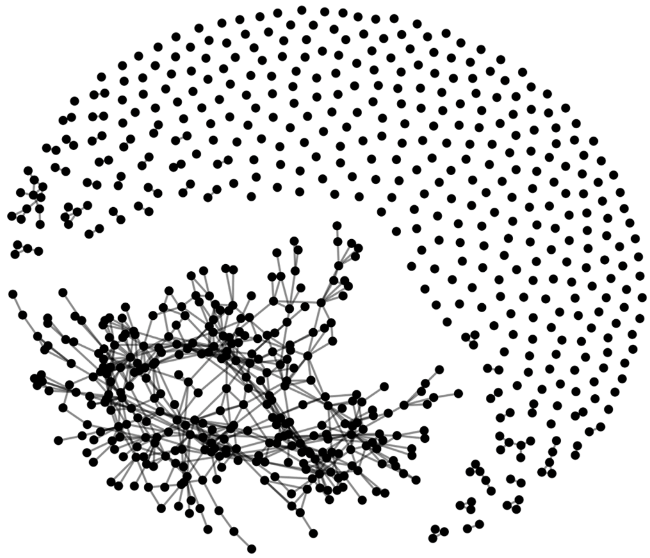

Fig. 6. NPO network, including indirect ties.

Figure 6 shows that the network of NPOs once we incorporate indirect ties – defined as where two NPOs each have a board member on a shared third (non-NPO) company – is significantly denser than the network that does not include this information. The giant component, towards the bottom left of the diagram, incorporates 323 NPOs, 44% of the total, where the giant component of the no-hop network contained 4% of NPOs. It also contains a total of 648 edges between NPOs. At the other extreme, 302 NPOs (41%) are still isolates when indirect ties are incorporated, down from 424 (58%).

The increased size of the largest connected component allows us to investigate the most central NPOs within the network. Fig. 7 shows the relationship between degree and betweenness for NPOs, including indirect ties.

Fig. 7 shows a strong relationship between degree and betweenness for NPOs; while there is not a perfect correlation, there are no organisations with low degree and high betweenness, though there are several NPOs with moderate degree and low betweenness.

The Royal Opera House is the most central NPO on both measures by some distance. Indeed, a number of the organisations with highest betweenness are also in the giant component of the original NPO network, suggesting that component may form the core of the broader network. At the same time, several organisations in that component do not have amongst the highest betweenness scores, and several organisations with high betwenness scores (such as East London Dance and North Music Trust) are not in that component. This shows that organisations which may not have seemed well-connected when only taking direct relationships into account are in fact well-connected when we consider indirect relationships.

This is further illustrated in Table 2, which reports the degree and betweenness scores for these highlighted NPOs, and distinguishes between direct and indirect edges.

The most central NPO in the network on both betweenness and degree, the Royal Opera House, only shares directors with two other NPOs. However, it indirectly shares directors with another 17 NPOs, by far the largest number of any NPO. Aurora Orchestra, in second place, only shares a director with one other NPO – but, again, its high betweenness is driven by the large number of indirect edges with other NPOs.

This goes some distance to explaining the most central NPOs in a broader context, and illustrating the fact that the most central organisations are not simply the ones that have the largest number of shared directors with other organisations. Next, we move to analysis of the overall network, retaining information about the non-NPOs where these indirect ties are taking place.

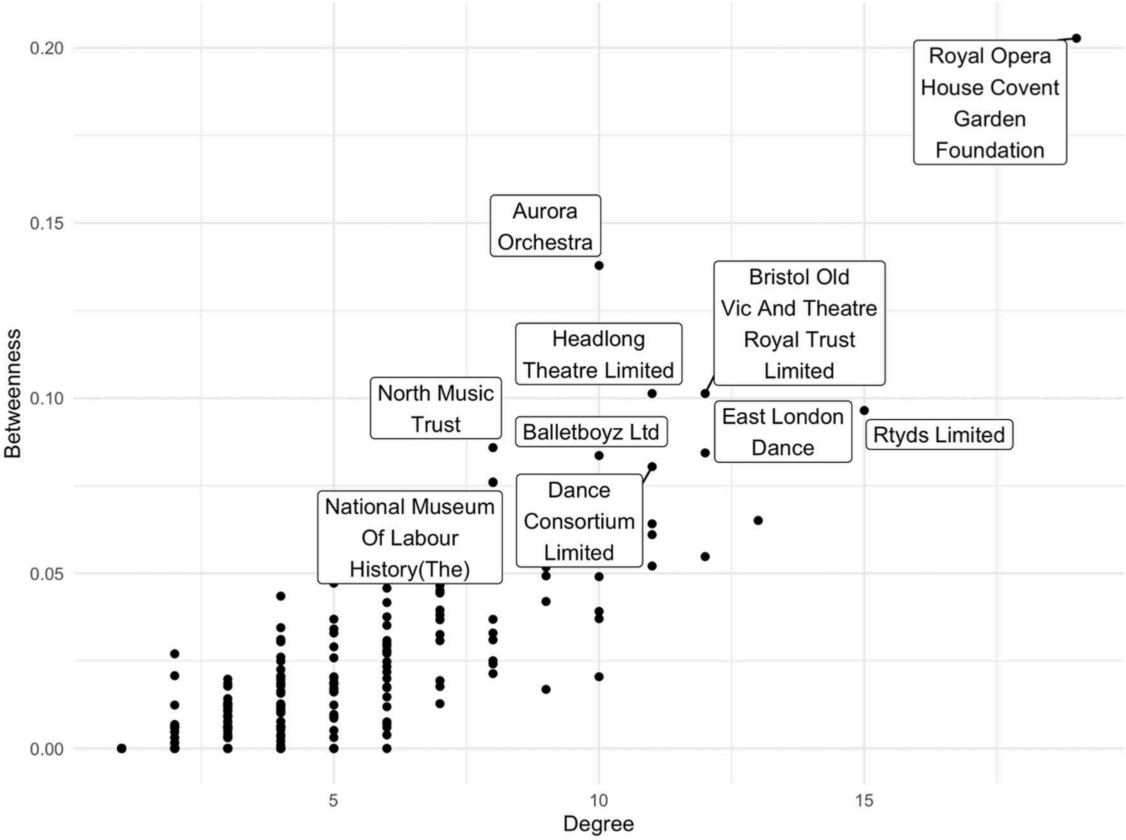

Fig. 7. Degree and betweenness for NPOs, including indirect ties.

The one-hop network, projected to all companies, is shown in Fig. 8. Because of the larger number of nodes and edges, they are semi-transparent.

While the NPO network consisted of 735 companies, the one-hop network consists of 7093, 5883 of these forming the largest connected component. Betweenness clustering yielded 181 clusters, with 8 large clusters with greater than 100 nodes - the largest consists of 206 nodes - with 93% of components (168) consisting of fewer than 70 nodes each. It is difficult to visually distinguish either communities or individual nodes and edges in the network. We therefore summarise some of the differences between the NPO and one-hop networks.

The crucial difference between the networks is in the large, central component. In the NPO network the largest component contains around 4% of nodes; in the one-hop network it contains 43% of NPOs, as explained above, but 83% of all organisations. That means that NPOs in the largest connected component are, on average, connected to significantly more non-NPO companies than are NPOs outside of it. It is in the centre of the diagram above. The NPO network contained 424 isolates and 54 dyads, whereas the one-hop

Table 2
Betweenness, indirect, and direct edges for NPOs.

NPO	Betweenness	Indirect edges	Direct edges
Royal Opera House Covent Garden Foundation	0.203	17	2
Aurora Orchestra	0.138	9	1
Bristol Old Vic And Theatre Royal Trust Limited	0.101	9	3
Headlong Theatre Limited	0.101	8	3
Rtyds Limited	0.096	10	5
North Music Trust	0.086	7	1
East London Dance	0.084	9	3
Balletboyz Ltd	0.084	8	2
Dance Consortium Limited	0.080	8	3
National Museum Of Labour History(The)	0.076	5	3

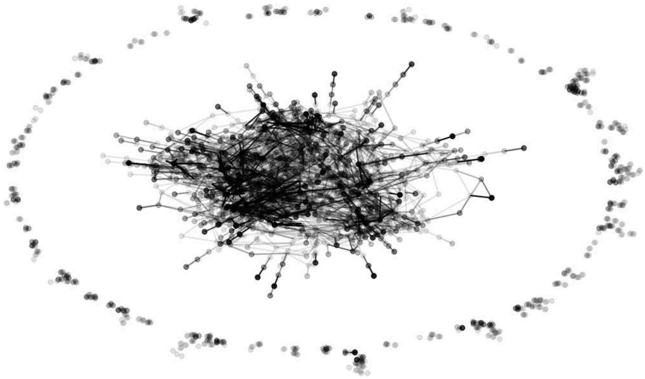

Fig. 8. One-hop network (companies).

network contains 55 and 54 respectively. That means that 247 of the 302 isolates in the NPO network that incorporates indirect ties share board members with at least one other company. The largest component outside the central component consists of 28 nodes.

In Fig. 5 we reported the distribution of more detailed (four-digit) SIC codes. In Fig. 9 we report the distribution of less detailed (two-digit) codes. This is because the number of different four-digit codes in the one-hop dataset is significantly larger. This allows us

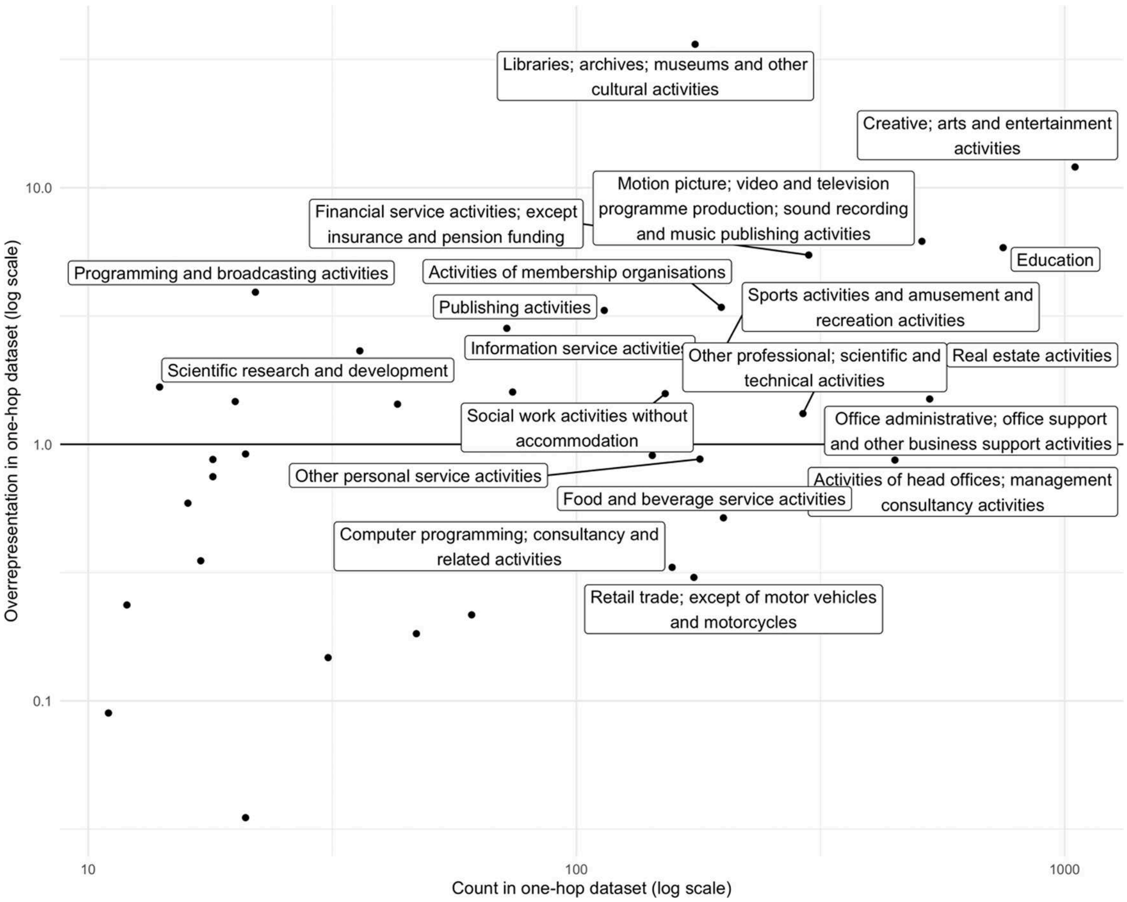

Fig. 9. Count and overrepresentation of SIC codes (1-hop).

to assess broader categories, such as "Creative, arts and entertainment activities", and therefore compare large industrial sectors. Because of the size of the dataset, we do not label every point, but only those that occur at least 150 times, or at least twice as often in the one-hop dataset as in the overall register of businesses. For example, a SIC code that applied to 0.2% of businesses in our dataset and less than 0.1% of businesses in Companies House would be highlighted; a SIC code that applied to 0.2% of businesses in our dataset and 0.4% of businesses in Companies House would not. This figure summarises the new cases introduced through the one-hop sampling, but does not include the original NPOs, thereby summarising the other companies on whose boards NPO board members also sit.

While the arts categories that we saw in Fig. 5 remain the most overrepresented in Figure 9 , even though the NPOs themselves are not included, this figure shows a new set of industrial activities that are overrepresented in the one-hop network. The most overrepresented categories – libraries, archives, museums, and other cultural activities, and creative, arts, and entertainment activities – are the categories most associated with Arts Council funding, and comprise the majority of the four-digit categories from Fig. 5.

Other categories, such as those associated with film and TV production and broadcast, are also closely related. Indeed, we might expect that people who govern theatres and producing companies might also have connections to film and TV production companies. Education also features heavily, as it did in Fig. 5. This is because some NPOs have educational roles themselves, and several directors of arts organisations are also on the boards of universities.

Some categories are generic, but are overrepresented. In these cases, they capture the kinds of organisation that are highly-represented amongst organisations more generally. For example, "Activities of membership organisations" include organisations such as the Royal Television Society, Bafta, and UK Music, as well as civic trusts, business improvement districts, and students' unions. The "other business support activities" category covers organisations including the Clore Leadership Programme and the Russell Group of Universities.

Other groupings are less clearly constitutive of the arts sector. The most striking are financial service activities and real estate activities. These are the categories that have concerned researchers who have warned against the marketisation of arts organisations

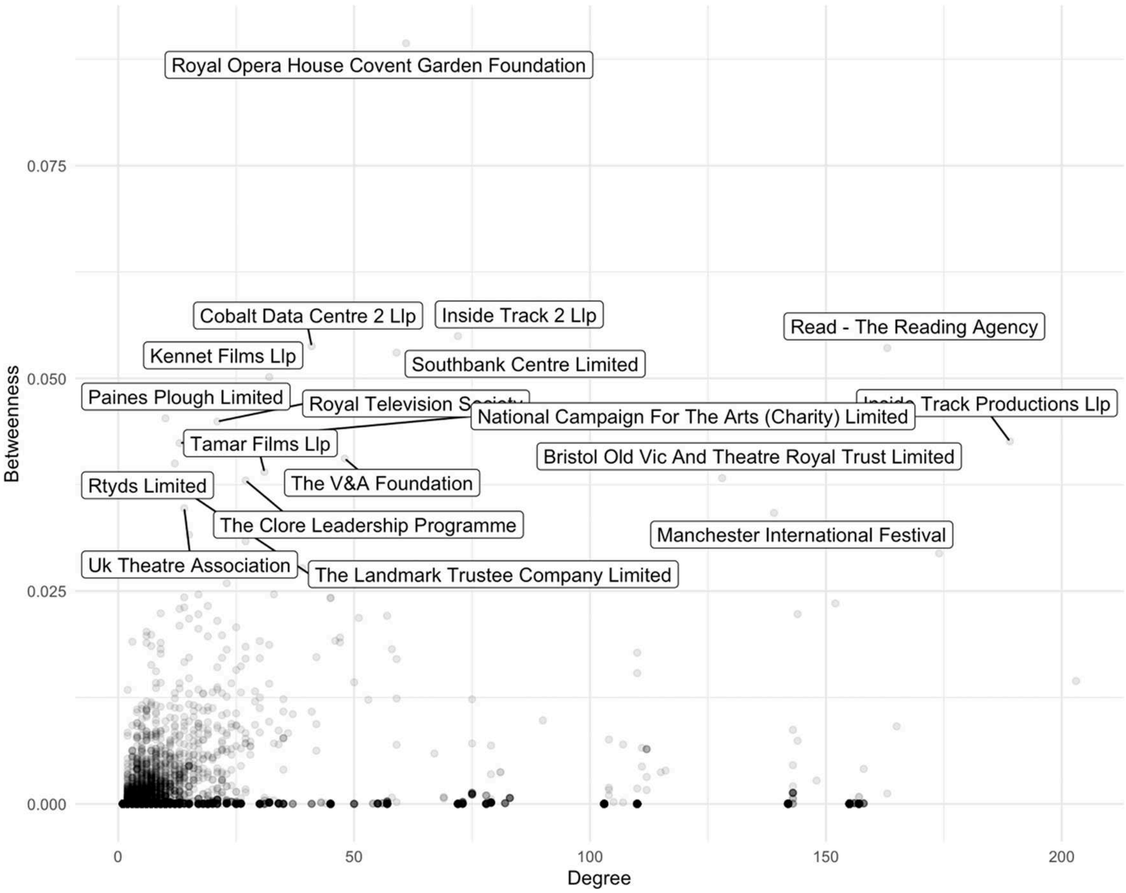

Fig. 10. Degree and betweenness (companies).

(Alexander, 2018) and are the organisations that are an important presence on the American arts boards that Ostrower (2002) and Fraser (2018) studied.

Figure 9 shows that there are more than five times as many financial service organisations in the one-hop dataset as one would expect from a random sample of companies from Companies House in general. This is striking because the other categories with these significant overrepresentations are either closely allied to the arts, or are the broader, more generic categories of membership organisations, civic trusts, or sector support agencies.

For the remainder of the analysis, we focus on the largest connected component. We first show the relationship between degree centrality and betweenness centrality for both projections, then describe the directors and organisations who are most central using these measures.

Fig. 10 shows the relationship between degree and betweenness for companies, with companies with the highest betweenness scores (over 0.034) highlighted.

That most companies score low or zero is not surprising; the majority of companies are not NPOs, having been brought into the network by virtue of sharing a board member with an NPO. When companies do not bridge NPOs, they end up at the periphery of the network. This heavy skew on both measures is a consequence of the sampling method.

Even beyond the number of nodes with low or zero degree, the overall distributions of both betweenness and degree are right-skewed. A large fraction of paths between companies pass through only a small number of organisations, and a small cluster of organisations seem to share a large number of board members between each other. Both these small groups have the potential to be in crucial gatekeeping roles.

The organisation with the largest betweenness score is the Royal Opera House (ROH). Its betweenness is 0.0894; the organisation in second place (Inside Track 2 LLP) is less than two thirds of this. The ROH was also the NPO with the largest betweenness score in Fig. 7. However, none of the other NPOs from Fig. 7 is amongst the highlighted companies here, illustrating the importance of non-NPOs to this network structure.

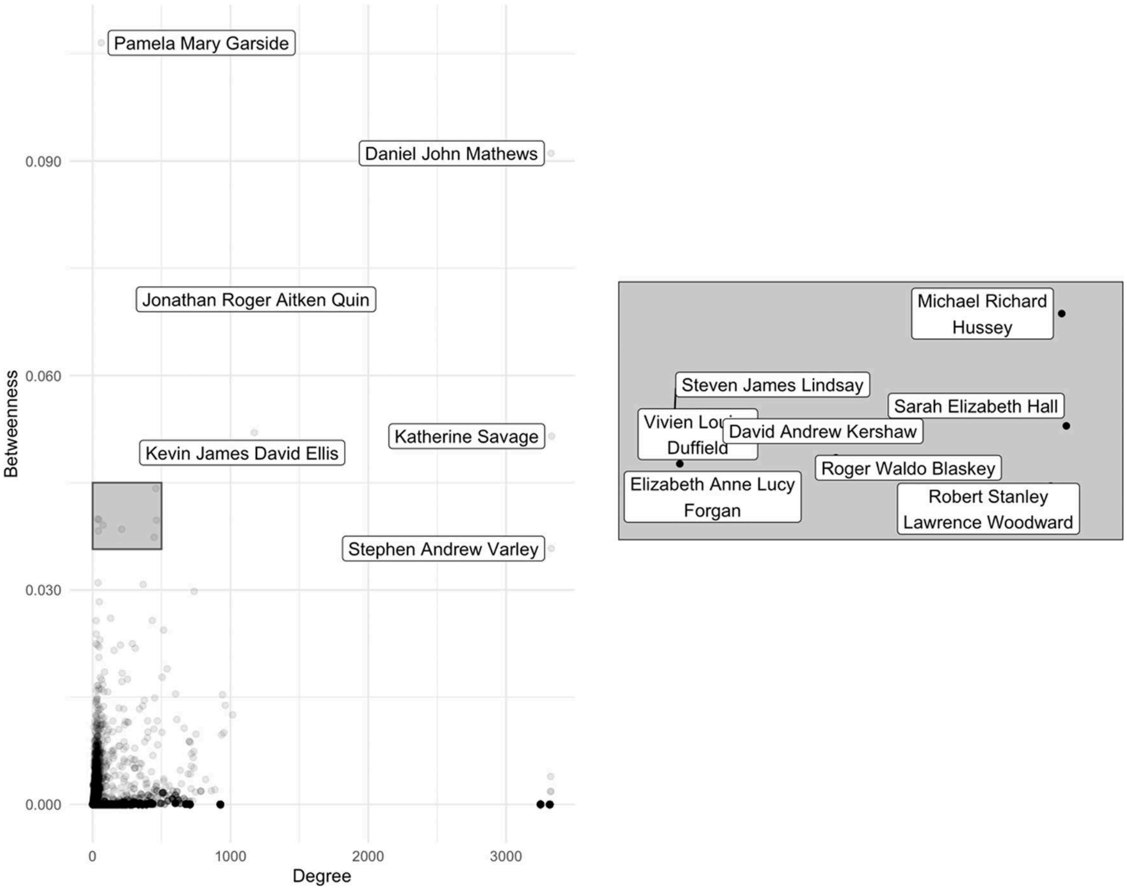

Fig. 11. Degree and betweenness (directors).

The ROH is followed by a range of Limited Liability Partnerships (LLPs). According to the descriptions on their websites, most of these are film funding schemes: Inside Track Productions (and Inside Track 2) and Kennet Films. Cobalt Data Centre 2 is a data centre that was empty until at least 2016 (Williams, 2016). These are institutions associated with significant tax relief policies: for the funding schemes, film tax relief; for the data centre, the location in an enterprise zone. In both cases, concerns have been raised that they are primarily being used for tax avoidance; they have been subject to judgments by HMRC, the UK's tax authority, that insufficient tax was being paid, and that directors owed millions of pounds in unpaid tax, although in Cobalt's case this was overturned on appeal (Cobalt Data Centre 2 LLP & Cobalt Data Centre 3 LLP v Revenue & Customs 2019; Ingenious Games LLP & others v Revenue & Customs 2019). These organisations have large numbers of directors – Inside Track has 139, hence the very high degree – but only a small fraction of these directors hold directorships on other companies in the network.

Other than these limited liability companies, which are best-known for their tax benefits and their interactions with HMRC, the other organisations with high betweenness are more expected. There are four more NPOs: two theatres, Bristol Old Vic & Paines Plough, one multi-use venue, the Southbank Centre, and the Regional Theatre Young Directors' Scheme. These are all institutions associated with theatre. They are also not amongst the most prominent organisations in the direct or indirect networks of NPOs; instead, it is their connections to non-NPOs that lead to their high betweenness scores. The V&A Museum – not an NPO, but directly funded by DCMS – and a range of institutions that work across institutions in arts and culture are also present. UK Theatre and the Royal Television Societies are both organisations representing their sectors; the National Campaign for the Arts represents organisations across the ACE brief; and the Clore Leadership Programme supports and develops leaders in the sector. These are the sorts of institutions we would expect to be in bridging roles in the network, bringing together the institutions that they represent.

Fig. 11 shows the equivalent data for company directors. Here, we report company directors with betweenness of over 0.035. Because there are eight directors with very similar degree and betweenness, we zoom into that part of the plot.

As with companies, both degree and betweenness are right-skewed. This is particularly pronounced for degree, where a small fraction of directors have degree in the thousands; this is true of four of the directors with betweenness greater than 0.035.

Table 3 presents information about these highlighted directors, with their betweenness, degree, any NPOs whose boards they sit on, and some prominent non-NPOs. We then describe the connections between directors and key organisations, and between directors themselves.

The three directors with degree more than 2000 and betweenness over 0.035 are on the board of the professional services firm EY Europe, which has more than 3000 directors; Kevin James David Ellis is on the board of the professional services firm PwC, which has more than 1000. We do not expect significant information-sharing to occur across groups of this size. This leaves two directors outside of the cluster we've highlighted. Pam Garside, with by far the highest betweenness, sits on the board of Medefer (which describes itself as providing virtual outpatient services) with Jonathan Quin, who has the third highest betweenness score. Garside is on the board of Punchdrunk, an NPO; Quin is on the board of Inside Track Productions and related companies. In this way, their shared board bridges the more theatrical- and commercially-orientated parts of the network.

The inset figure includes directors with distinct patterns of board membership. Three are on the board of Inside Track; Hussey bridges Inside Track with the Southbank Centre, Woodward bridges Inside Track with the Royal Television Society, and Hall bridges Inside Track with the Landmark Trust (which conserves historic buildings) and a large number of theatre companies. Other directors are more prominent within the arts, bridging different art forms. Liz Forgan, on the board of the Landmark Trust with Hall, is also on the boards of the Bristol Old Vic and Aurora Orchestra (both NPOs), and the Guardian Foundation (the charitable wing of the Guardian Media Group); Vivien Duffield is on boards across different art forms, the Royal Opera House, Imperial War Museum, Balletboyz, and Clore. Meanwhile, Kershaw bridges the Southbank Centre and Clore, as well as a large number of advertising firms. Finally, Lindsay

Table 3
Directors in the one-hop network with betweenness greater than 0.035.

Name	Betweenness	Degree	NPOs	Prominent non-NPOs
Pamela Mary Garside	0.107	63	Punchdrunk	Medefer; Whizz-Kidz
Daniel John Mathews	0.0911	3325		Ernst & Young; Whizz-Kidz
Jonathan Roger Aitken Quin	0.0706	428		Inside Track 2; Medefer
Kevin James David Ellis	0.052	1173		Pricewaterhousecoopers; Cherwell Films
Katherine Savage	0.0515	3330	National Museum of Labour History	Ernst & Young
Michael Richard Hussey	0.0441	458	Southbank Centre	Cherwell Films
Steven James Lindsay	0.0399	36	National Museum of Labour History; Manchester Young People's Theatre	Kay Johnson Gee
Vivien Louise Duffield	0.0398	45	Royal Opera House Covent Garden Foundation; Imperial War Museum Foundation	Clore Leadership Programme
Sarah Elizabeth Hall	0.0397	463	New Perspectives Theatre Company	Inside Track 2; Landmark Trust
David Andrew Kershaw	0.039	75	Southbank Centre	Clore Leadership Programme; M&C Saatchi
Roger Waldo Blaskey	0.0384	212		Kay Johnson Gee
Elizabeth Ann Lucy Forgan	0.0382	42	Aurora Orchestra; Bristol Old Vic and Theatre Royal Trust	Landmark Trust; Guardian Foundation
Robert Stanley Lawrence Woodward	0.0373	446		Inside Track 2; Royal Television Society
Stephen Andrew Varley	0.0357	3327		Ernst & Young

and Blaskey are the only directors who are not mainly on the boards of London institutions, both being Manchester-focused. Lindsay is on the board of two NPOs, Contact Theatre and the People's History Museum, the latter of which he shares with Savage. He is also on the board of an accountancy practice alongside Blaskey, and is on the boards of a number of film production companies sharing board members with Inside Track.

Thus, we can see three distinct varieties of board members with high betweenness. First are directors sitting on an NPO board along with a large professional services firm board. In these cases, the high betweenness may be an artefact of the large number of directors that professional services firms have. The second is directors who bridge different parts of the cultural sector. They bridge large organisations in music and theatre, or museums and opera, for example. The third is directors who bridge NPOs with Inside Track Productions, which is by far the most prominent organisation in the network representing an industry outside the Arts Council brief.

4. Discussion: a new, old, cultural elite?

What does our analysis reveal about questions of power and influence in the arts, and how does this relate to studies on inequalities in consumption and production? Here we return to the recent literature on arts governance and cultural policy, alongside the more general concerns found in work on the cultural sector and inequality.

Our findings speak directly to the trends identified by Griffiths et al. (2008), and the concerns raised by Alexander (2018). Griffiths et al. (2008) charted a shift in those dominating the governance of culture. The shift was from an elite whose members predominantly studied at particular schools and universities, and were members of gentleman's clubs, to an elite more closely associated with the worlds of business and finance. Our analysis suggests a marked acceleration of the shift identified by Griffiths et al. (2008).

In terms of individuals, we see a clear dominance of business, financial, and accounting services expertise covering over half of the 'top 20′ individuals within England's governance network. This is to be expected, given the needs of organisations for specific skills in these areas. Individuals from the world of business sit alongside media elites, with both screen production and financing representing important presences.

The dominance of business expertise also connects directly to Alexander's (2018) concerns around the decline of autonomy in the cultural sphere as a result of new forms of governance that are both marketized and state-influenced. The 'top′ individuals show a prominence of the new financial and business elite noted by Griffiths et al. (2008). Their centrality to the network of arts boards in England is an important feature of the governance landscape, and there are parallels with Fraser's (2016) analysis of US arts governance. However, they are not quite the billionaire business people noted by Banks' (2017) study of the Met, and they are present as much as for expertise as for their possible philanthropic role.

Again, there is the need for nuance. This is not a straightforward story of of cultural governance being entirely absorbed into the corporate world. Rather, as we look more closely at the makeup of the most central corporate organisations, we see two kinds of activity: funding film projects and property development. We further see that these industries are more dominant in the network more generally. These trends connect directly to Alexander's (2018) analysis of the impact of changes in funding arrangements, as well as the more general literature on the rise of building projects and place based cultural regeneration (Mould, 2018).

Nonetheless, there has been no total corporate or business takeover at the centre of England's cultural governance. The Royal Opera House, which has a central position in the largest connected component of the NPO network, is the organisation with the highest betweenness in the one-hop network. Bristol Old Vic and the Southbank Centre in London (both NPOs) are also very prominent in the one-hop network; also prominent are The Reading Agency and the Royal Television Society, organisations supporting literature and media industries respectively. The centrality of the Royal Opera House indicates the continuities with the older system of 'gentlemanly' cultural governance identified by Griffiths et al. (2008).

The ROH is the central arts institution, as measured by both its position as an organisation and the key individuals involved with its board. By any metric, whether funding, audience, or workforce, opera is England's most elite artform and the ROH that artform's most elite institution. As a result, while the presence of both arts administrators and business elites within England's arts governance network may have changed the *expertise* of who runs the arts, the dominance of the Royal Opera House suggests elite structures are adept at adaptation to changing demands, in order to protect and secure their positions in the field (Accominotti, Khan & Storer, 2018). This can be seen in the presence of key individuals with connections directly to Griffiths et al. (2008) 'aristocratic' elite.

Dame Vivien Duffield, an arts philanthropist and key part of arts leadership training in her role at Clore, and Dame Liz Forgan, former chair of ACE, both fit the mould of the aristocratic and arts administrator elite identified by Griffiths et al. (2008). That they are examples of outliers in the network would not have been conceivable a decade, or longer, ago. The declining presence of the aristocrat arts administrator is a counterpart to the increasing dominance, for good or ill, of business expertise within English arts governance.

The network structure of the analysis allows us to investigate both the most central organisations in the network, and the varieties of organisation that are most prominent. There has not been a complete corporate takeover of the arts. At the same time, the industries which boards of directors for arts organisations are most disproportionately likely to sit – other than other arts and media organisations – are in financial services. Existing research on the relationship between the arts and the financial sector has illustrated relationships between them, but our analysis shows not only that these relationships extend beyond corporate sponsorship of arts organisations into significant numbers of shared board memberships between financial organisations and arts organisations, but also that this extends beyond the very largest and most high-profile arts organisations studied elsewhere, and applies across the publicly-funded arts sector in England.

5. Conclusion

We began our paper with the artist Andrea Fraser's (2018) analysis of the close connection between politics, power, and the art world in the United States. Her concerns were primarily about the broader social inequalities that underpinned the arts in America. She identified contradictions between the people governing elite cultural institutions and those individual's engagement in a Trump administration that was hostile to arts and culture. Her contribution from within the art world has been echoed by voices across the cultural sector, questioning the relationship between social and cultural inequalities and governance in the arts (Higgins, 2021).

Our analysis suggests that there have been important changes in England in the decade or so since the question of who governs the arts was last asked by Griffiths et al. (2008). The rise of management and business represents a break from the twentieth century's aristocratic, administrative, and academic cultural elite. Yet there are still continuities for those most central to arts governance. This is most strikingly illustrated by the centrality of one institution, The Royal Opera House, and the centrality within the overall governance network of its most prominent board members.

This elite dominance is in contrast to the efforts of cultural policy to democratise the arts (ACE, 2010, 2020). It prompts the question of why the same problems of workforce and audience inequalities persist, despite clearly demonstrated changes in the individuals and organisations that are influential in cultural governance. The role of boards in holding organisations, and staff, accountable is a site for future policy and academic analysis given the continuity of inequalities identified in the literature and the changes in boards that we have noted.

There are several strands of future research suggested by this overview of the network and the individuals and organisations within it. Charting the impact of different elite fractions on organisational programmes; understanding the exact modes of action and accountability; thinking through the demographic characteristics of people with influential network positions; and international comparisons, would all be fruitful areas for research. If other case studies and examples from cultural policy and cultural production are a guide (see O'Brien 2014 for a full discussion), we expect similar patterns to those reported in our findings here in other countries.

Funding

This work was supported by the Arts and Humanities Research Council, under grant reference AH/S004483/1.

Author contributions

We share equal authorship of the paper, with Rees leading on data curation, methodology, and software, and Taylor leading on conceptualization, methodology, analysis, and visualisation. All three authors are responsible for the writeup of the research.

Declaration of Competing Interest

None

Acknowledgement

This work was supported by the Arts and Humanities Research Council, under grant reference AH/S004483/1, and was supported by Wave 1 of The UKRI Strategic Priorities Fund under the EPSRC Grant EP/W006022/1, particularly the Digital Twins: Urban Analytics theme within that grant & The Alan Turing Institute.

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.poetic.2022.101646.

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