


# Audiences for Orchestral Music: Challenges New and Old. The Cases of Germany and Poland

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## Abstract

Technological change has impacted orchestral music for over a century, with the demise of orchestral concert audiences in their familiar form being considered by some at various times to be under threat. Access for classical music audiences however has increased over recent decades through radio, albums, and tapes/CDs/DVDs, thereby increasing the potential for large increases in classical music listener/viewer audiences. In the case of albums and tapes/CDs/DVDs, audiences have control over what and when they tune in, whereas in the case of radio, the schedule is fixed for them. Besides, in-hall audiences, adjusted for population, at orchestral concerts in Germany and Poland have been increasing, but a small number of orchestras in each country dominate. Technology has now made possible, through the live streaming of concerts, not just into cinemas and similar venues but also directly into homes, a *potential* substantial increase in live listening/viewing audiences; the *Berliner Philharmoniker* is leading the way in this regard.

**KEYWORDS:** *orchestra, funding, technology, live streaming*

**SŁOWA KLUCZOWE:** *orkiestra, finansowanie, technologia, transmisja na żywo*

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## 1. Introduction

Beneath the pounding of the percussion and sonority of the strings, beyond the reach of the conductor's gesticulations and exhortations, behind the serenity of the crowd's spirit looms the daunting, incessant, and necessary process of funding a symphony orchestra, of creating and maintaining a public for its music (Galinsky and Lehman 1995, 117).

The above is what has preoccupied orchestras for over two centuries. In many ways, it is a problem that afflicts any business, but for the live performing arts, including orchestras, the problems seem more acute, or at least more frequently articulated.

Technological change has impacted orchestras for over two centuries, in very different ways.<sup>2</sup> In the twentieth century, the main concern though was that technological change was much more applicable to other sectors than in many of the services sectors, thereby raising relative pricing and costing difficulties for some services sectors, especially education, health, and the performing arts (see Scitovsky and Scitovsky 1959, Baumol and Bowen 1968). In time though, technological change made it possible for the performing arts sector to reach a much wider audience, mostly through albums, CDs/Tapes, radio, and TV. More recently, the live streaming of concerts on TV sets and other devices became a reality, with the potential to generate large increases in listeners/viewer audiences and potentially lucrative revenue flows.<sup>3</sup>

Much has been written about the decline in the audience for orchestral music in the US (see e.g., Flanagan 2012, Pompe and Tamburri 2022). This paper will however focus on two countries where a different "story" can be told in this regard, namely Germany and Poland. As pointed out in Galinsky and Lehman (1995), the role of orchestras in society always differed between the US and Continental Europe. The German model, for example, is informed by a deeply rooted musical heritage (see also Zieba and O'Hagan 2013); it is

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<sup>2</sup> For example, the construction of individual instruments, their development, the introduction of new instruments and the means of articulation all witnessed changes in the delivery of music and could be viewed as technological change in the broadest sense. Besides, in the mid-18th century there was not one audience, but several types, especially since orchestral music appeared in three different contexts (court orchestras, monastery orchestras, and city orchestras), which changed the audience, but also the place of music and its role. See Peyser (2006) for interesting articles on the origins and transformations of orchestras going back to the 15<sup>th</sup> Century.

<sup>3</sup> The so-called 'cost disease' debate which arises from limited scope for productivity increases in some sectors is considered in O'Hagan and Zieba (2023).



supported almost entirely by public funds, consists of an extremely homogenous group of musicians contracted as civil servants, and is led by a strong music director. This applied also to countries in the orbit of influence of the USSR, located behind the Iron Curtain, Poland included, but there, the state took “control” of the arts as they were considered a powerful tool to influence society in ways that were supportive of the system. The period looked at here for Poland goes back to 1992, from which reliable data are available, namely the post-Soviet period. Classical music though has for many centuries held a special place in Polish society, including in more recent times, as evidenced by the following.

If you ask a Polish man or woman on the street who is Gorecki or Chopin everyone would know. If you were to ask them to name one living composer, the name of Penderecki would be mentioned.<sup>4</sup> But if you were to repeat the same test in the U.S, it is highly unlikely that anyone who is not a musician would mention Steve Reich, or Elliot Carter.<sup>5</sup>

Classical music in Germany and Poland relies on state funding. As seen in Table 1, subsidies account for 60 per cent of total income, rising to 78 per cent when revenue from playing for theatres and other income is included. A similar situation applies in the case of Poland (see also Gabriel 2012).

Table 1: Own Revenues and Subsidies for German and Polish Philharmonic Orchestras for the year 2009 (in 1,000 EUR)

Country statistics	Operating Income	Subsidies	Subsidies in %
<b>German orchestras</b>			
Including revenues from playing for theatres and other income	145,347	216,045	60
Excluding revenues from playing for theatres and other income	62,162	216,045	78

<sup>4</sup> He died, in 2020, since this was written.

<sup>5</sup> <https://polishmusic.usc.edu/research/publications/essays/briefest-history-of-polish-music/>.



<b>Polish orchestras</b> including orchestras without own venue and choir	14,575*	66,399	82
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\*Estimate only.

Sources: Summary tables of Theaterstatistik (2009/10) for Germany. For Poland, GUS 2010, 22, 24 and 26. Zloty/EUR exchange rate for year 2009 = 4.3276.

The focus of this paper though is on maintaining and increasing audiences, with the revenue implications to be discussed in future work (see O'Hagan and Zieba 2023). Audiences consist potentially of four primary groups.

- In-hall paying audiences.
- Audiences for radio and TV, with though no significant direct revenue stream being generated for orchestras.
- Audiences for recorded music via paid-for albums/CDs/DVDs, streaming etc.
- Audiences for paid-for live streaming of orchestral music into people's TVs and other electronic devices.

Some of these offer substantial opportunities for commercial revenue generation, with the concern that the more successful they turn out to be, the higher the risk that it will impact negatively on state funding. On the other hand, if classical music does not have a wide audience, paid or unpaid, state funding could be reduced. This is an interesting topic for further work, but the data on which to base this does not exist yet. The focus of this paper then is *not* on finances, but a consideration of the diverse types of audiences for classical music which, thanks to technological change, have evolved over time. A detailed consideration of actual and potential audiences for orchestral music is essential before the funding prospects for orchestras can be examined in any meaningful way. In the cases of Germany and Poland, such work is underway (see O'Hagan and Zieba 2023), but the data required for a proper analysis are still well out of reach.

The purpose of this article then is, building on O'Hagan and Borowiecki (2021), to review these developments,<sup>6</sup> Section 2 provides a brief overview of the main technological changes impacting the receiving and output of orchestral music, and hence on audience evolution. Section 3 will track, using

<sup>6</sup> It also attempts to add to the work of other economists in relation to culture and economics, in particular the seminal books by Frey (2000) and Throsby (2001).



the data sets available for Germany and Poland, some of the main long-term trends in terms of in-hall orchestral concert audience, plus other paid-for listenership modes of access. Section 4 will consider the issues surrounding the live relaying into people's home TV sets and other devices, thereby potentially increasing the listenership/viewing audience base. Section 4 will review what is known publicly so far in relation to the Berliner Philharmoniker in this regard and briefly consider some more general issues in relation to live streaming. Section 5 concludes the paper, highlighting that while there have been possibilities for vast increases in the base for listening/viewing audiences, how that has/might translate into sustained increased revenue is, as mentioned above, a subject for further detailed work.

## 2. Technological Change and Orchestral Music

Few in the classical music world doubt that the orchestral music of Beethoven, Brahms, Mozart, Shostakovich, Tchaikovsky, Penderecki and others will continue to be important in decades to come. But how will this music be produced and through what audience form? Particularly, will trends which began long before COVID-19 in these respects continue or even be accelerated? Will orchestras as we know them exist if few of their performances were to live in-hall audiences?

### Receiving

As alluded to above, technological advances brought about dramatic changes for orchestral music in terms of how and where it can reach audiences. For example, home radio enabled new audiences to hear live broadcasts and recordings of all kinds, including classical music performances. As Manzi (2017) points out, in the 1950s, the TV arrived, on which people could watch orchestras play live. Since then, he argues we have eight-track, cassettes, CDs, DVDs, MP3s, YouTube, and most recently, streaming of live concerts on TV.<sup>7</sup> Alongside those advances in recording technology, there was a rapid advance in the capabilities of listening equipment, including personal headphones, portable Bluetooth speakers, and professional-grade speakers that put out sound with lifelike quality. Video has reached the point where the human eye can no longer pick out a single pixel on a computer or TV screen, not to mention the immersive experience of virtual reality.

<sup>7</sup> The original recording process, phonographs for example, dates back in fact to the 1870s.



In a similar vein, the Swiss American conductor and scholar Botstein (2020) argued, more recently, that viewing/listening to orchestral music was once just an adjunct to concert life and that recording in the past supported the culture of concert audience. By the mid-1960s, however, he argued that the balance had shifted. Recordings became more important. And one could readily imagine staying at home, in a 'surround-sound' context, with or without headphones, and listening to one's favourite multi-phonic studio recording rather than going out and sitting uncomfortably, in a concert hall.

These represent dramatic changes indeed in the ways in which orchestral music can reach audiences. Whether or not they spell the 'end' for live in-hall concert orchestral music audience is an issue which only time will tell.

### Producing

There are also technological issues facing orchestras on the supply side. It was argued some decades ago, for example by Frederickson (1989), that technology had advanced to the point that performers' sounds can be not only recorded but analysed, reconstituted, and simulated and that as the rationalization of technique continues to its logical conclusion, a specific musician might be no longer necessary. Not only is the continuation of live orchestral concerts then in question, but the very existence of an orchestra as we know it could be at stake. This is an exaggeration but certainly, apart from music performed by a full orchestra physically together, there will be options in terms of reconstituted and simulated music available – through digital tracking, mixing, and mastering – a practice common in popular music for some time.

Over thirty years ago, Kramer (1996) also heralded that technology was already ubiquitous in music.<sup>8</sup> It had, he argued, altered how music is transmitted, preserved, heard, performed, and composed. Less and less often, he states, do we hear musical sound that has not at some level been shaped by technology, broadly defined. For example, technology is involved in amplification in public address systems, in the reinforcement of concert halls, the recording and broadcast of music, and the design and construction of musical instruments. Instruments are now available that look like piano keyboards, feel like piano keys, and sound like piano timbres, but which are in fact dedicated digital synthesizers; virtuoso performers whose instrument is the turntable are now part of not only the world of disco but also, albeit a

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<sup>8</sup> See also Midgette (2008).



small part so far, of the world of classical concert music.<sup>9</sup> Bakshhi and Throsby (2011), in a similar way, note that:

Composers in classical, jazz, film and rock/pop music genres use digital devices such as synthesisers, samplers, virtual recorders, and computer software such as MaxMSP to create complex and multi-layered textures and to manipulate sounds from a variety of sources in their compositions. The availability of these technologies has extended musical boundaries (210).

Artificial intelligence could yet have an even more dramatic impact on the output of classical music. With the help of algorithms, AI allows artists to create new musical works, explore new genres, and even experiment with new instruments that were not previously possible (see Frackiewicz 2023).

These again represent major changes in the ways in which orchestral music can be produced to target better its audience. However, many see these changes on both the receiving and producing ends in a positive light.

### New Opportunities

Digitalisation, for example, opens new ways for orchestras to reach out and address audiences in an unusual way (see Szabó and Szedmák 2020). The Berlin Philharmonic's *Digital Concert Hall* project was the first major initiative which used social media to broaden the audience globally by making the orchestra's concert recordings available to audiences around the world via the Internet (see Furu and Reckhenrich 2021). Thus, the audience can access the orchestra's recordings and live concerts anytime, anywhere. This also provides an opportunity to reach a new audience: the concept can be attractive to those who, while open to classical music, cannot appear in person for any reason (e.g., remote location, schedule, other tasks/programmes). Furthermore, it is a way to reach out to young people who prefer listening to music at home and often consider the traditional concert form uncomfortable. Since the concert experience is not the same through the screen as live, no orchestra need worry about losing current in-hall audiences, they argue. The application of the concept is more likely to result in the involvement of new in-hall audience members, while the existing core in-hall audience may in fact 'consume' more they argue.

Pompe and Tamburri (2022) argue that during the COVID pandemic, music audiences became accustomed to streaming music performances, and

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<sup>9</sup> Turntables and samplers are also used as 'instruments in live performance of some popular genres (rap, hip hop, etc.).



likely will be expecting to continue to receive streaming concerts, along with attending live concerts. The success, for example, of the *Berlin Philharmoniker* and the Detroit Symphony Orchestra have paved the way for a hybrid concert series that have various combinations of recorded and live performances, which is perhaps more suited to the lifestyles of the twenty-first century rather than eighteenth century audiences. The Detroit Symphony, for example, provides great accessibility to their music by streaming, with music categorized in numerous ways, such as by women composers. The *Berliner Philharmoniker* sells subscriptions to live stream performances for different time periods up to a year, much as Netflix does. Online offerings should be continued and expanded because benefits, such as reducing barriers to symphony concerts and providing marketing advantages, can be significant. Thus, there are strongly competing views on the impact of the new technology on the extent of new audiences and existing in-house audiences.

### 3. Experiences of Germany and Poland

#### In-Hall Audiences

Are audiences at in-hall concerts in crisis? The perceived decline in audience is driven by the experience in the United States (see O'Hagan and Borowiecki 2021). While reliable in-hall audience figures are difficult to obtain, the available evidence indicates that this is not the case in many European countries. We take two large countries, Germany and Poland, to illustrate this point. Figure 1 outlines total per capita in-hall audience in Germany at concerts.<sup>10</sup> The key finding here is that in-hall audience up to the pre-COVID years showed no decline. COVID, of course, meant no live in-hall audience for a time and post-COVID data are not yet available.

As can also be seen in Figure 1, audience per capita at concerts at non-home venues comes to more than a third of home venue per capita audience, adding considerably to the total.<sup>11</sup> However, it is not clear whether audience at home venue includes audience for non-home orchestras. Besides, some of the audience at home venues could be accounted for by overseas visitors (see Zieba 2016).

<sup>10</sup> There was very little change in population size in Germany over these years and hence the trends in total audiences vary little from the per capita data.

<sup>11</sup> Using per capita figures nets out increases simply due to population.





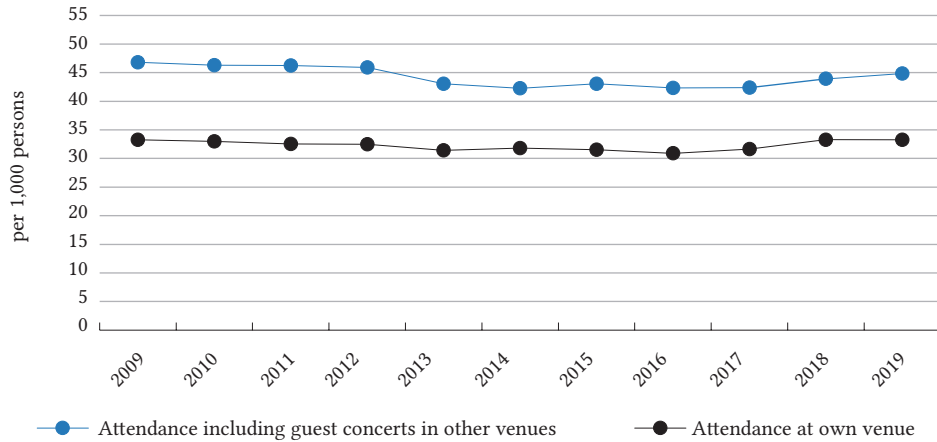


Figure 1. Total audience including guest concerts (away from home venue) in Germany, per 1,000 persons

Source: Theaterstatistik (2008/09–2018/19).

It is possible to examine in-hall audiences in Germany over a longer period, but only in terms of their own venues. What Figure 2 confirms is that in-hall audiences, adjusted for population, have increased over the last thirty years or so years, from about 25,000 in the early 1990s to almost 35,000 in the 2010s.

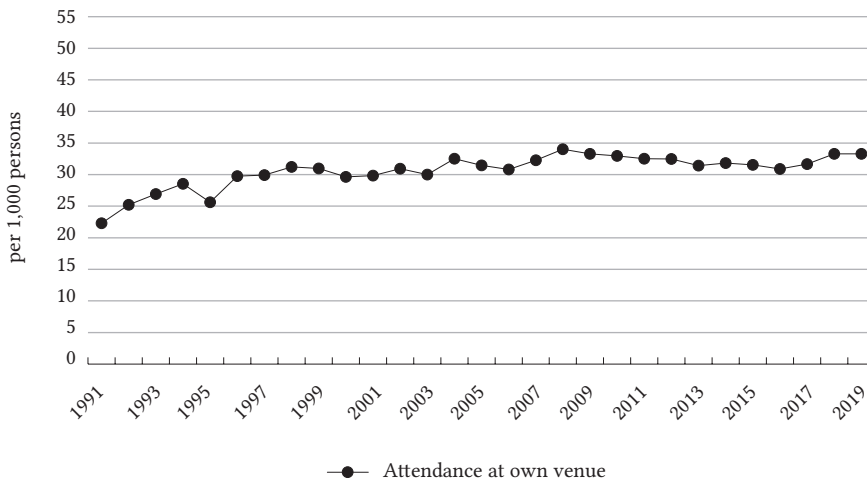


Figure 2. Total audience at own venue (excluding guest concerts away from home venue) in Germany, per 1,000 persons, 1991/92–2019/20

Source as for Table 1.



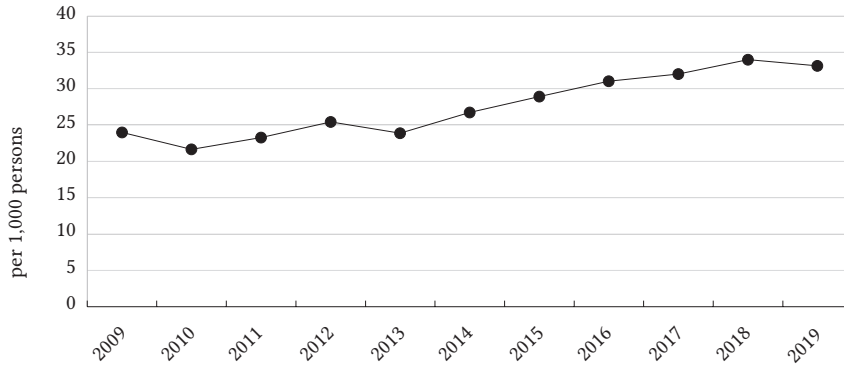


Figure 3. Concert audience at home venue in Poland per 1,000 persons

Source: Central Statistical Office in Poland – GUS (2009–2019).

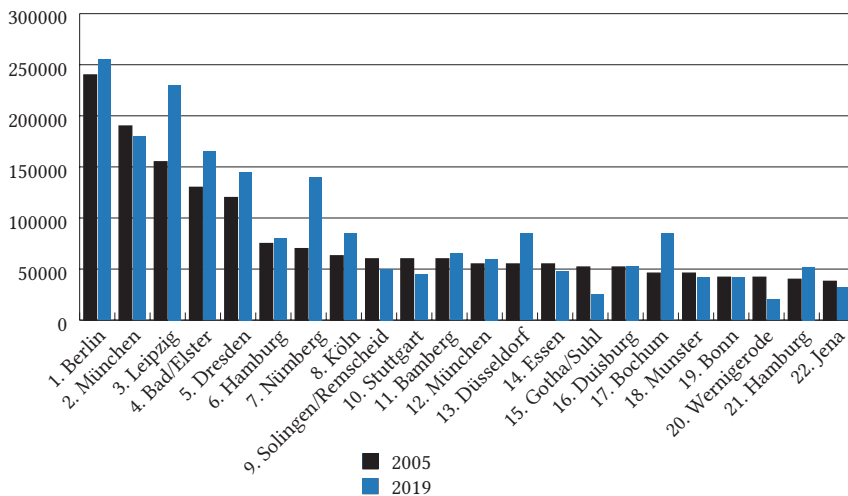


Figure 4. Home concert hall audience at German orchestras, 2005 and 2019

1. Berliner Philharmonisches Orchester; 2. Münchner Philharmoniker; 3. Gewandhaus-Orchester; 4. Chursächsische Philharmonie; 5. Dresdner Philharmonie; 6. Hamburger Symphoniker; 7. Nürnberger Symphoniker; 8. Gürzenich-Orchester; 9. Bergische Symphoniker; 10. Stuttgarter Philharmoniker; 11. Bamberger Symphoniker; 12. Münchner Symphoniker; 13. Düsseldorfer Symphoniker; 14. Philharmonie Essen; 15. Thüringen Philharmonie Gotha-Suhl; 16. Duisburger Symphoniker; 17. Bochumer Symphoniker; 18. Symphonieorchester; 19. Orchester über Beethovenhalle; 20. Philharmonisches Kammerorchester Wernigerode; 21. Hamburger Symphoniker; 22. Jenaer Philharmonie.

The trends in Poland are for the post-2009 period broadly similar, as seen in Figure 3. Data are available only from 2009, but in the following ten years,



in-hall audiences per capita increased by around one-third, reflecting significant growth. What is equally interesting is that the per capita in-hall audience figures for home venues (data not available for audiences away from home) are very similar to those in Germany, the 'standard bearer' for orchestral music. This perhaps adds weight to the belief that orchestral music in many of the former Eastern European Soviet states also have large in-hall audiences.

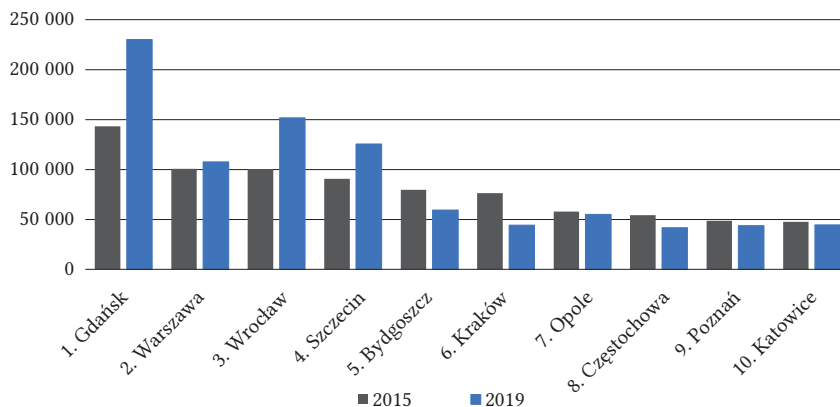


Figure 5. Home concert hall audience of Polish orchestras, 2005 and 2019

1. Polish Baltic Philharmonic of *F. Chopin*; 2. Filharmonia Narodowa (National Philharmonic in Warsaw); 3. National Forum of Music (before Filharmonia Wroclawska); 4. Filharmonia Szczecin of *M. Karłowicz*; 5. Filharmonia Pomorska of *I. J. Paderewski*; 6. Filharmonia Krakowska of *K. Szymanowski*; 7. Filharmonia Opolska of *J. Elsner*; 8. Filharmonia Częstochowska of *B. Herberman*; 9. Filharmonia Poznańska of *T. Szeligowski*; 10. Filharmonia Śląska (Silesian Philharmonic).

Source: Own graph prepared from Central Statistical Office in Poland – GUS (various years).

As may be seen in Figure 4, five orchestras dominate in Germany in terms of concert hall audience.<sup>12</sup> The Berliner Philharmoniker has the largest in-hall audience but, in recent years, the Gewandhaus-Orchester at Leipzig has closed the gap appreciably. Orchestras in Munich, Bad Elster, and Dresden make up the rest of the top five, with that in Nürnberg a very close sixth. The twenty-two orchestras in Figure 4 account for seventy to seventy-five per cent of home in-hall audience for all orchestras in Germany. Figure 4 confirms

<sup>12</sup> The audience measure used is the number of visitors at the own (home) venue (concert hall) of the independent orchestras in Germany and Poland, who are independent legal entities with their own concert halls. Hence, the measure includes only home (own) venue audience and not audience at guest concerts away from home venue. These figures though would include non-German visitors to home venue plus audiences at concerts by visiting orchestras.

again an increase in orchestral in-hall audience in Germany over the longer period, 2005–2019, with three large orchestras showing sizeable increases.

The position in relation to Poland is outlined in Figure 5, where the top ten orchestras are ranked by annual concert hall audience.<sup>13</sup> In terms of this measure, the Polish Baltic Philharmonic of F. Chopin in Gdańsk is the largest by far in Poland. The ten orchestras shown account for around seventy-per cent of total home in-hall concert audience in Poland and three of them experienced large increases in audiences in the four years before the pandemic.

It is not possible, however, to compare the annual attendance data for Germany and Poland. For example, the data show that total annual attendance at the Polish Baltic Philharmonic of F. Chopin in Gdańsk is almost the same as for the Berliner Philharmoniker, which is not credible, as the concert hall capacity for the former is just 1000, whereas that for the latter is around 2,500. On closer examination, it appears that the Gdańsk orchestra held 443 performances in one year, whereas the Berliner Philharmoniker held just held 141<sup>14</sup> Again, it is not credible that we are comparing like with like and hence cannot reach any conclusion.

In conclusion, there is as such no 'crisis' with in-hall audiences at orchestral concerts in Germany and Poland. In both countries, audiences have, if anything, increased in the last fifteen years or so. The challenge is to maintain such audience levels into the future, especially if, in time, live streaming of concerts into home TV sets becomes a widespread reality. More local engagement is what many see as essential to this continued success.

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<sup>13</sup> The data for Polish independent orchestras are much more limited than the data available for German *Kulturorchester*. These data were obtained from the *Główny Urząd Statystyczny*, GUS (National Statistics Office) in Poland from various reports and statistics which was prepared in Poland on cultural institutions, including the philharmonic orchestras. All data for Poland are presented for the calendar year and they present the activities only at their own home venues.

<sup>14</sup> The average number of visitors per performance is about 519, which would make sense given the size of the venue is 1,000 seats. The average number of visitors per performance for the Berlin Concert Hall is about 2,000, the capacity of which is around 2,500. Moreover, IMIT (2011, 207) argues that according to data from the Central Statistical Office in Poland (GUS), the average orchestra in Poland last year gave almost two concerts a day (exactly: 1.7), each for over 180 listeners – only two, however, the Warsaw Philharmonic and the Krakow Philharmonic, repeat their subscription concerts (Friday and Saturday). These GUS data blur the picture because they include school concerts performed by chamber groups selected from the symphony orchestra, which can be organized several times a day. According to IMIT (2001), all philharmonics conduct this type of activity as do many non-philharmonic orchestras.



## Local Engagement

Figure 6 throws some light on the possible reasons for the more positive picture in relation to Germany. While the number of concerts, of various sorts, over the period remained steady, there was a dramatic rise in the number of musical educational events. The latter include concerts for young people and children (25 per cent of total in 2017-18), school concerts (20 per cent), and workshops in schools (55 per cent). In all subcategories, there was a substantial increase, reflecting a marked expansion in terms of local involvement.

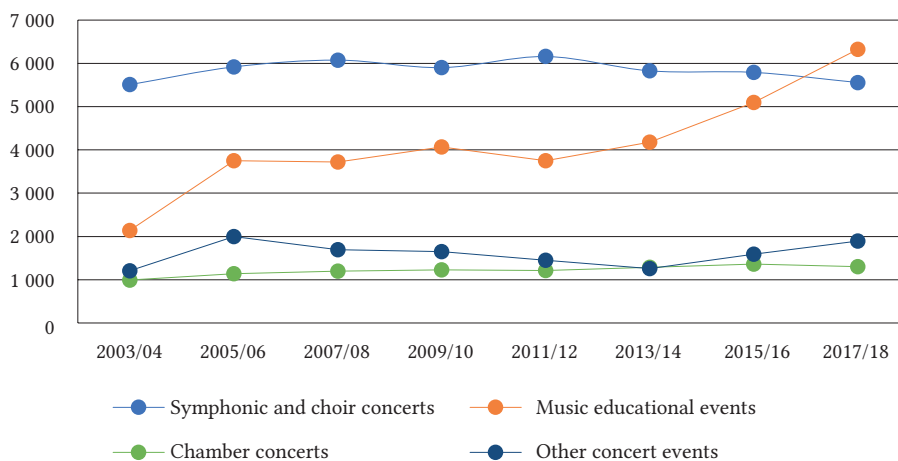


Figure 6. Events Organized by Publicly Funded Orchestras and Radio Ensembles in Germany, 2003-04 to 2017-18

Source: German Music Information Center (2019) based on information from the German Orchestra Association (DOV).

As Zieba and O'Hagan (2013) state, German orchestras have deep local and regional roots, arising from its decentralised system of government. German orchestras produce much more than symphony concerts, but also run introductory matinées, explanatory concerts, literary musical-themed evenings, and thematically linked chamber music concerts. There has been an upward trend around orchestra activities for children, young adults, and families.<sup>15</sup> Orchestra members are also extensively involved on a voluntary

<sup>15</sup> There is, for example, an excellent programme (now linked to smartphone apps) that allows people aged under 26 to buy tickets for a fraction of a normal price for a seat at a concert or opera. Besides, there is a good musical education level in Germany, and many Germans have



basis in the local musical community. It may be that Botstein's (2020) recommendations above for US orchestras was shaped by this German experience, which suggests that such innovations can work in sustaining and increasing audiences for live in-hall orchestral music.

### Sources of Paying Audiences for Recorded Music

We know that there are large listener audiences, especially in Germany. For example, around one-third of the German population aged over fourteen in 2022 liked or liked very much to listen to classical music, with the figures for opera being one-quarter (*Bundesverband Musikindustrie e.V.*). As such, this is a huge listening audience, most of whom listen free to classical music. Many though will listen via recorded albums/CDs/streaming, and as such have paid for their listening, which is of most direct interest in relation to the future of orchestras.<sup>16</sup>

Turning then to the proposal by Szabó and Szedmák (2020) to find new paying audience sources, especially from recorded music, the evidence so far is extremely limited and mixed. O'Hagan and Borowiecki (2021) show that a slight increase in global classical recorded revenue took place over the years 2016 to 2018, and that revenue from this source was about the same in Europe as in the US. A more striking finding was that the share of this accounted for by streaming is increasing rapidly<sup>17</sup>: streaming revenue in 2016 accounted for around sixteen per cent of global classical recorded music revenues, rising within two years to thirty-seven per cent. The highest percentage in 2018 was in the US, at sixty per cent of total revenue, with the figure for Europe at twenty-two per cent. Many are positive about the future of classical music in an age of streaming. They, like Szabó and Szedmák (2020), see streaming of music as a key factor in reaching the millennial classical music audience, the people who, at an older age, will frequent concert halls.

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played some instrument and can read musical notation, which contributes to the appreciation of live music.

<sup>16</sup> A large non-paying listening audience might impact on state subventions to orchestras, but this is an issue for another paper. It could also increase the audience for in-hall live music.

<sup>17</sup> It is not clear though how much of these revenues went to the performers. The question of the share accruing to performers is a potential problem in popular music as per stream revenues are very small, meaning artists receive less income from recording and now must do more live performances (which is now the cash cow where previously it was often treated as a loss leader to encourage record sales.)



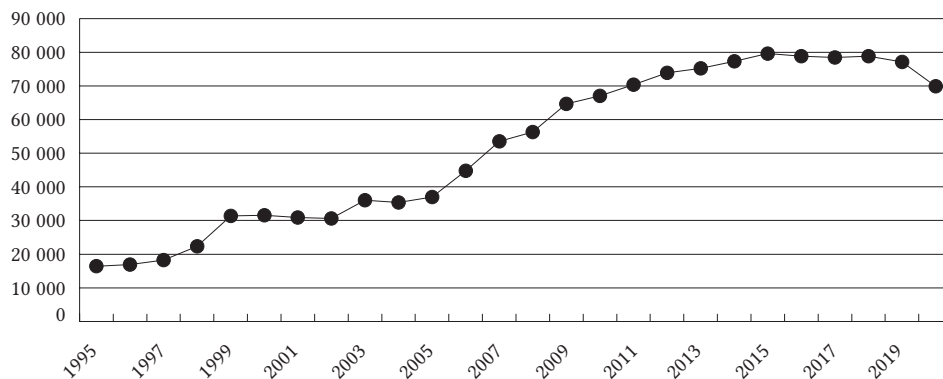


Figure 7. Classical music album titles (including video albums) on sale in Germany (1995–2020), in units

Source: Own graph prepared from Bundesverband Musikindustrie e.V. reports (various years).

Figure 7 indicates a positive picture in relation to classical music supply of physical album titles in Germany, the number of new album titles rising almost fourfold in twenty-five years. These data though relate to album titles not sales. Figure A.1 indicates that digital supply of classical music titles also increased in Germany by threefold in seven years from 2014 until 2021. How much revenue this brought to orchestras is not clear, but it does indicate an increasing demand for variety in audience listening/viewing classical music performances.

Turning now to sales and revenue, as an indicator of the composition of audience preferences, Figure 8 indicates that total revenues from physical album sales in Germany declined between 2009 and 2019, which is also in line with other music segments. Thus, while there was a greatly increased variety of albums available for audiences, total revenues nonetheless declined. However, total revenues from recorded streaming have been rising, implying an increasing audience for this source. This implies again that streaming might be an important source for future audience development for classical music in Germany. Revenue from streaming of classical music was almost zero in 2013 but rose to just under €20 million by 2019.



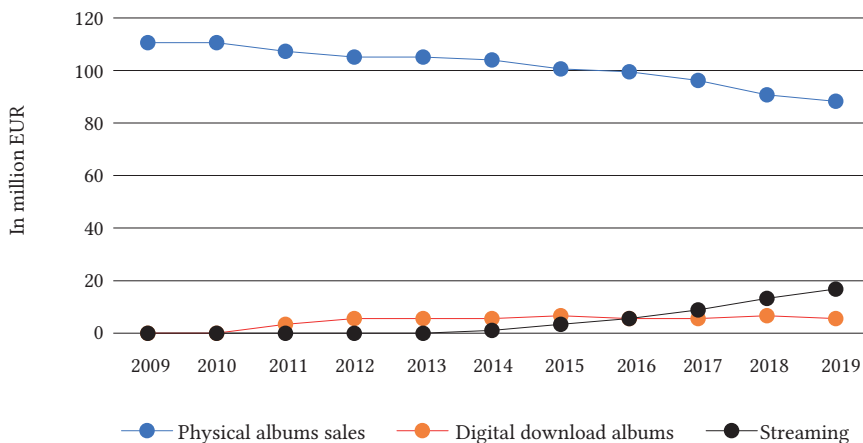


Figure 8. Total revenue from recorded classical music sales in Germany (2009-2019), in million €  
Source: Own graph prepared from *Bundesverband Musikindustrie e.V.* reports (various years).

#### 4. Live TV Streaming of Orchestral Music

While live classical music concerts have been available on TV, usually on publicly funded channels, for many decades, the audience had no choice regarding content and timing. These were seen as part of the ‘return’ on the licence fee but brought in no direct extra revenue to orchestras. The streaming of live music into cinemas took off about seventeen years ago, with the Metropolitan Opera in New York being particularly active in this area well before COVID.

Streaming into cinemas is clearly a lucrative market in which payment from the audience can be easily enforced and monitored. The same might not be true in time for in-house streaming audiences, especially if the enforcement of copyright becomes more difficult.

##### Berliner Philharmoniker Digital Concert Hall<sup>18</sup>

Many opera houses and concert halls have experimented with streaming, recorded and live, especially during and since COVID. Only the Berliner Philharmoniker (BP) has taken this to its natural conclusion and offered all live concerts for streaming, plus access to a large backlog of earlier concerts, talks and so on.

<sup>18</sup> See Manzi (2017) for an impassioned plea not to do away with live in-hall concerts.





The BP Digital Concert Hall was launched in 2008 (see Furu and Reckhenrich 2021). However, building the foundation for digitalisation started years earlier, they argue, mainly due to two major trends. First, there had been a decline of classical music broadcasts on both television and radio, drops in audition licences, as well as a major downward trend in sales of classical music recordings. Secondly, existing technologies and formats for music recordings were under threat. Consequently, the Berlin Philharmoniker Orchestra considered their response to these negative trends.

For the DCH, Germany as of 2021 was the largest market with a share of almost 30 percent of total sales (Furu and Reckhenrich 2021). The remaining over 70 percent of customers were internationally spread. The DCH has around 17 percent of customers in Japan, followed closely by the USA and other European countries. From the beginning, the strategy of the DCH was clearly oriented towards a business model that offered content for a fee. At the time, the “pay-per-view” trend was starting to grow in popularity on the internet. When the DCH started in 2009, however, such offers were still rare. In the meantime, more and more providers moved towards charging for formats that go beyond a certain basic amount of information.

As the BP saw themselves as the benchmark for the highest standards, customers having to pay for accessing premium content was easier to argue for. Therefore, from the very beginning, the Berlin Phil Media marketed the DCH as a stand-alone offering, where customers would get access to their product, which was classical music performances of the highest quality. In the beginning of 2009, however, it was difficult to estimate how many customers could be attracted and converted to subscribers.<sup>19</sup> As more technical hurdles were overcome, the number of visitors of the DCH continued to grow. Today, the DCH is a real technology company (Furu and Reckhenrich 2021).

The DCH opened its third TV production studio with the 4K video standard. They have developed their broadcasting resources to accommodate viewing of and listening to the concerts on practically any device. The amount of data at

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<sup>19</sup> By 2013, The Digital Concert Hall was considered a resounding success (see Uhl, Schmid, and Zimmermann 2013). In addition to its existing core audience, the Berliner Philharmoniker had attracted a total of over 3.8 million to its audiences, with the new streaming platform. The archive of the Digital Concert Hall then contained over 200 concert recordings with about 500 musical pieces, 150 interviews, as well as 20 documentaries. Up to that point, 2.5 million hours had been streamed, which corresponds to 600 sold-out concerts in the Berlin Philharmonic Hall. Fifty percent of the revenue was generated from people who lived outside the European Union. Compared to the traditional audience, the age of the average consumer was lower. By June 2013, over 135,000 users had installed the Berliner Philharmoniker's app on their mobile devices.



play is enormous. For example, in a Beethoven symphony, broadcasting the music requires 26 playback audio channels, such as iPhone, iPad, Android, Computer, and even low range quality such as stereo 5.1. and mono. To accomplish that has required the constant and determined development of the technology since the start of the DCH. (53)

### To Stream or not to Stream, and How?

Thus, the establishment of the DCH was a hugely expensive and intricate technological enterprise, which might be very difficult to replicate for less famous orchestras than the BP. Besides, as Bronson and Kluger (2021) argue, it may be that the rationale for streaming in general is not to raise revenue. The following questions arise for future work in relation to this.

Should for example they argue access to digital content be monetized or otherwise restricted?

Does it make sense to monetize digital access via pay-per-view fee subscription fees and offer digital access only to ticket buyers to live performances?

Does it make sense not to limit access at all, but to use free digital content as an audience development strategy to entice people to attend live performances?

Should end users have temporary access to the digital content, via live or on-demand streaming, or permanent control via downloads or podcasts?

Will touring guest artists allow unrestricted digital distribution or, to avoid depressing demand for their live performances, insist on geofencing of local streaming (which limits access to devices in a defined geographic area)?

Regarding finances, the following questions need to be addressed in future work.

First, what are the incremental costs of capturing and distributing digital content to a wider audience at an acceptable quality standard?

Second, how large an audience can be reached with digital offerings?

Third, can payment be enforced, now and into the future, and can the revenue stream so arising justify the exercise?<sup>20</sup>

Fourth, if successful financially, might this impact negatively on state funding and private philanthropy?

Fifth, is sponsorship being considered, as in football, through the placing of TV advertisements before, during and after concerts? Or through

<sup>20</sup> See Waldfogel (2017), Aguiar and Waldfogel (2018) for discussions of the issues of piracy in the music industry and the enforcement of intellectual property rights.



advertisements on clothing and/or instruments? The case of football might in fact be a good case study on which to assess the future financial viability of live streaming into homes of orchestral concerts.<sup>21</sup>

How would the provision of pay-to-view live concerts by a few of the best-known orchestras impact the ecology of the whole orchestral sector in a country? Bear in mind that local engagement may lie behind the success of the orchestral sector in Germany, especially with its links to schools and other local institutions. How would live streaming, by a few of the major orchestras, impact on this? Similar issues have arisen in relation to football, where pay to view matches of the top teams was thought to jeopardise the success of lower division teams and local involvement, which would be worth exploring.

Related to this, it will be the case that streaming makes various world venues accessible to the audience, irrespective of where the audience is located. Having equal access to a top orchestra and a local orchestra in the audience's city, the audience may opt for performance quality and log in to the streaming of the top orchestra. This partly explains why many less well-known orchestras do not and will not invest in streaming technology.

## 5. Concluding Comments

The continued existence of live in-hall orchestral music has been questioned on and off for decades (see e.g. Baumol and Bowen 1968, Flanagan 2012, Pompe and Tamburri 2022). The initial concern was that orchestras simply could not continue to be funded through income from concert audiences alone, without increasing state support and/or private philanthropy. This arises from the so-called 'cost disease', which applies to many service industries such as education, health, and the performing arts, first considered by Scitovsky and Scitovsky (1959) and applied specifically to the performing arts by Baumol and Bowen (1968). This is because the same number of players are required today to play a Beethoven symphony as two hundred years ago, and concert hall audience is severely restricted. Hence, technological change cannot be applied and, as a result, there is no scope for productivity increases.

There followed the concern that further technological change had altered the nature of receiving and producing classical music so much that the very existence of in-hall live orchestral concert audiences was in question. The worry was that people would not attend in-hall given the vastly improved

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<sup>21</sup> See Seaman (2003) for other examples of the parallels between orchestral music and football.



images and sounds available on one's home screen and the sheer cost and inconvenience of attending.

A more optimistic scenario, as seen earlier, is that the possibility of live transmission of concerts into people's homes could bring increased paying audiences for some orchestras, especially if the example of sports could be replicated. And as with sport, live audiences in-hall could, in many cases, be maintained or increased at the same time, as there was a very large expansion in paid-for home audiences. If the latter were true, it would ensure the survival of orchestras and make redundant the cost disease as applied to them. Only one orchestra, which we know of, currently does this on a large scale, the Berliner Philharmoniker, but there are almost no data at present on its relevant revenue data, even for a single year. What we do know is that in 2022 the paying audience was over two million subscribers, eight times the annual in-hall audience size (see also Footnote 14). What will also be interesting to see is how many, if any, other orchestras have gone down this route. To what extent these developments can translate into financial success is, at this stage, impossible to gauge.

However, what the data for Germany and Poland show is that in-hall orchestral music audiences are alive and well there, with no decrease in in-hall audiences evident, unlike in the US, and perhaps other countries. The pattern in both countries is one of slowly increasing in-hall audiences, per head of population. The per capita audience in Poland is nearly as high as in Germany, reflecting a rich orchestral history in both countries. Around four to six orchestras dominate the audience figures in both countries, with the Polish Baltic Philharmonic of F. Chopin in Gdańsk the largest in Poland.

Further future work is to obtain data, if available, on the funding sources for orchestras in Germany and Poland over time (see O'Hagan and Zieba 2023). And, to examine the alternative revenue experiences from albums/CDs/streaming of recorded orchestral music to date. Most interesting of all, will be to ascertain, when suitable data are available, the potential for revenue flows from the live streaming of orchestral concerts into the homes of all willing to pay an enforceable annual subscription.<sup>22</sup>

<sup>22</sup> Zieba and O'Hagan (2013) examined the demand for in-house audiences for orchestral music in Germany. Price and income were shown to be highly significant, as were the quality factors included. Additionally, two objective output characteristics which can positively influence concert attendance were examined. It might be of interest to update this in a later paper, but it would add little to the actual situation regarding the different audiences for orchestral music in Germany discussed above. A knowledge of the existence and extent of these audiences, the purpose of this paper, logically comes before the issues affecting the likely future extent and determinants of these audiences.



## Appendix

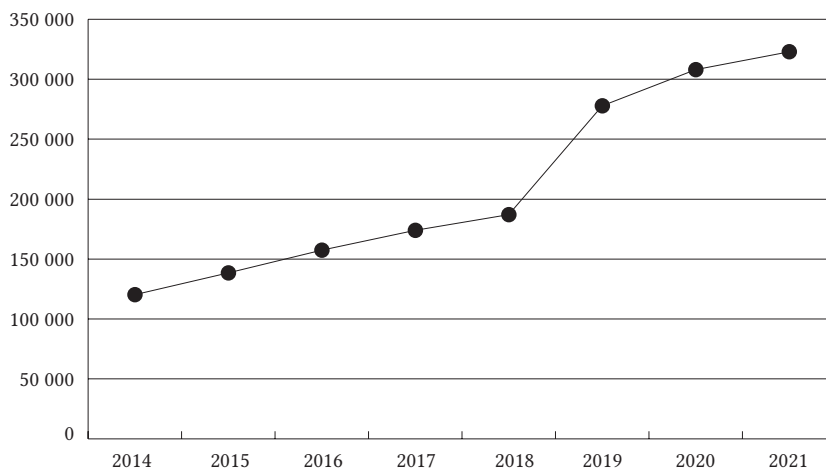


Figure A.1. Classical music digital album titles on sale in Germany (2014-2020), in units  
Source: Own graph prepared from Bundesverband Musikindustrie e.V. reports (various years).

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