

Classical music and audience development

Exploring the viability of mobile apps in live classical music concerts to attract and engage young audiences

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Abstract

One of the discourses about the world of classical music explains how it is immersed in an audience crisis. During the last decade, the audiences have aged, classical music performances appear to encounter lower participation, and traditional values of classical music seem to be detached from the way of living in society nowadays. However, trends are emerging to break down the barriers between high-arts and low-arts and attract new audiences to live classical music concerts, aiming to make classical music accessible to everybody. This research delves into new practices and audience development practices focused on attracting and engaging with young audiences. Therefore, it reflects on how symphony orchestras and ensembles are including innovative practices, and how mobile apps is one of the tools starting to be included during the classical music concert despite the unacceptance of mobile phones in the concert hall. Thus, we consider the research question *to what extent could the use of apps during the classical music concert could be a tool for audience development for young people between 18 and 34 years old?*

Firstly, the research aims to gather perspectives about the use of mobile apps in the classical music concert among young people with different frequencies of attendance to live classical music concerts. Motivations and barriers for attendance to live classical music concerts are also explored. The quantitative results show some problems and possibilities that mobile apps might present in live classical music concerts, being them a good introductory experience for new audiences yet regarded inappropriate to use. Secondly, interviews with management staff members and musicians from some symphony orchestras and ensembles aim to explore further the possibilities of mobile apps. Other successful alternatives to attract young people to classical music concerts are presented. It can be concluded that mobile apps that give information about the music are a tool that can be used in more informal settings of live classical music concerts, but there are better alternatives to attract and engage young audiences with classical music.

KW: mobile apps, concert attendance, young audiences, audience development, classical music, innovation.

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1. Introduction

In the search of a research topic, I came across several academic and press articles expressing general concern in the world of classical music. They mentioned declining participation, aging audiences, and the difficulty of attracting new audiences to live classical music concerts. Some of the given reasons for the decrease in attendance involve the characterization of classical music for being traditional, old-fashioned, and associated with high culture in which having a musical background it is seen as a must from the eyes of non-attendants (Vercammen, 2017). Symphony orchestras and other classical music ensembles are facing a declining interest from the audiences, especially from the youngest ones. During the decade of the 1990s, attendance at classical music concerts in the Netherlands fell (Towse, 2010), being the age group between 65 and 79 the largest one nowadays (Vercammen, 2017).

However, in this phase of searching for a research topic, I also got to learn about the innovative panorama of audience development in classical music. Some concert venues, ensembles, and symphony orchestras are adapting the setting of live classical music concerts, and digital technologies are taking a step forward in regarding the listening experience of classical music. Since I had an education in classical music combined with a marketing background, I found some of these initiatives interesting audience development tools that may attract and engage youngsters with classical music.

Symphony orchestras and classical music ensembles aim to engage with new audiences to ensure their sustainability on time. Therefore, innovation is a tool to develop new audiences and attract them to live classical music concerts. Bakshi & Throsby (2010) delve into innovation forms in cultural organizations from a management perspective after studying the case of two British cultural entities (the Tate Gallery and the National Theater): in audience reach, artform development, value creation, and business management. In fact, innovation in audience reach can be accomplished using strategies of audience development, allowing cultural institutions in this way to innovate in audience broadening (e.g.: attract more audience that meets the characteristics of the main target group), audience deepening (e.g.: increasing the commitment and engagement of the current audiences) and audience diversifying (e.g.: attracting new target groups) (Bakshi & Throsby, 2010). However, innovating classical music concerts is not an easy thing to do. Changes and innovation in the classical music setting are limited since authenticity and staying true to the music and the organization is also relevant (Sigurjonsson, 2010; Abbing, 2019).

Besides that, some of the experts from the classical music world have already expressed some pessimistic points of view about the future of classical music. In an interview with BBC Radio 3, John Adams already expressed his frustrations about the future of classical music and the fragility it has in the present time, especially when bringing classical music to the younger audiences. 'I fear we're going down a rabbit hole' he said. Also, Vercammen (2017) quoting De Haan & Knulst (2000) explains how the authors explained how new generations of non-attenders will be detached from classical music forever since results find that young people who do not attend classical music concerts in the present will not do it either in the future. Delving into the reasons why people do not attend classical music, Kolb (2005) highlighted the current disconnection between the traditional setting of classical music concerts and the newer audiences, being necessary to improve communication with the public. Hamann (2005) predicted a drop of 36% on attendance for live classical music concerts if governments are not acting in what concerns music education and cultural policies.

However, many professionals from the classical music industry truly believe that classical music is not dead. Aubrey Bergauer, who is known to be "the Steve Jobs in the classical music industry" by professionals from the sector, explained in a press article how classical music does not have to change as a product being, but it is the narrative of classical music what is failing instead:

"The music itself is not the problem, in fact, it's what we do best—it's our core product. Yet so many organizations think that if we change the product, it will help the bottom line, but it won't. The problem with classical music is everything except the music; in technology parlance, we might say that our 'UX,' our customer user experience, generally sucks."

(Wierson & Draghiciu, *Observer*, 2019)

Benjamin Zander, the current conductor from the Boston Philharmonic Orchestra, is also an example of how to communicate the classical music experience to audiences that attend to a concert for the first time. His vision is about bringing classical music to broader audiences, since "everybody deserves the experience of hearing classical music played by a live orchestra" (Harten & Rabold, 2010). Thus, as he said in the TED Talk "The transformative power of classical music", the threatening audience panorama of classical music can be seen as an opportunity to bring innovation and deeper connections between the musicians and the audiences, therefore making people love classical music.

“Probably a lot of you know the story of the two salesmen who went down to Africa in the 1900s. They were sent down to find if there was any opportunity for selling shoes, and they wrote telegrams back to Manchester. And one of them wrote, “Situation hopeless. Stop. They don't wear shoes.” And the other one wrote, “Glorious opportunity. They don't have any shoes yet.” Now, there is a similar situation in the classical music world because there are some people who think that classical music is dying. And there are some of us who think you ain't seen nothing yet.”

(The transformative power of classical music, TED, 2008)

In this context, there is an existing need for innovating live classical music concerts, especially in providing an adapted presentation to the background of the potential audiences by increasing informality (Baker, 2000; Abbing, 2006). According to Kolb (2005), cultural institutions are highly dependent on marketing strategies which suggest the need for the right adaptation and communication of the classical music concert to attract the new cultural consumer. Studies and reports have been made for innovating classical music concerts, being the one developed by Philliber and Whitaker (2003) one of the most relevant on innovation in orchestras. In this report, it is accounted how fifteen US orchestras innovated their managerial structure aiming to (1) support programs that increase ticket sales, (2) supporting the development of connections with current, new, and potential audiences (3) improving relationships among musicians, audiences and communities and (4) understand the market in which orchestras are developing new audiences. Results suggest that some examples of innovations that can attract new audiences could be made by non-traditional concerts, thematic programming, and free events.

Beyond that, current innovations in classical music focus on increasing the participation of the listener in the classical music concert. In fact, classical music has been evolving and renewing as an art form, but its staging has remained stable since the nineteenth century, with the listener staying silent and immobile (MCICM, n.d.). Besides that, non-attenders fear that they will not understand classical music, worrying about feeling inferior to the rest of the audience or not belonging to the classical music concert (Barlow & Shibli, 2007). But digital technologies could be considered a new tool for audience development and may have an impact on the listening experience, too. The motivation for this research relies on the issues that classical music concerts face nowadays and how are they being overcome by innovative strategies, especially those including digital technologies that can potentially give

rise to new aesthetic forms in the classical music concert. To the best of my knowledge, literature about audience development in classical music is still missing special attention to mobile apps as concert companions during live classical music concerts. Mobile apps are especially familiar to the youngest public and they can have a role in enriching the live listening experience and make classical music more understandable. Even though some symphony orchestras classical music ensembles are already working with mobile apps, the use of mobile phones is considered inappropriate in the concert hall. Therefore, the research question *to what extent could the use of apps during the classical music concert could be a tool for audience development for young people between 18 and 34 years old?* has been considered, which attempts to delve into opportunities of mobile apps in live classical music concerts to attract younger audiences, as well as possible alternatives.

2. Theoretical framework

2.1. Classical music and its perception

It is necessary to explain what the concept and values of classical music entail. When classical music is treated by musicologists, they refer to the classical period from the end of the 18th century (Warthenpfehl, 2019), to which recognized composers like Joseph Haydn, Wolfgang Amadeus Mozart or Ludwig van Beethoven belonged. However, in practice, classical music also refers to ancient music, baroque music, modern music, and even contemporary music (Abbing, 2019). In this thesis, I will refer to the term classical music according to this last definition.

Research on classical music has been made from different points of view. For art sociologists, classical music is purely an art form (Warthenpfehl, 2019). Thus, Johnson (2002) emphasizes that the utmost important aspect of classical music is to save its artistic value. However, other researchers argue about the value of classical music, and how it goes far beyond that. According to Kramer (2007), the value of classical music is expressed by the listening experience, since classical music facilitates the introspection of the individuals and activates their imagination in a way that other human activities cannot do. In this line, Bull (2014) indicates classical music as a "bodily experience", that is, the experience of enjoying and delving into the classical music individually yet sharing with the rest of the audience in the concert hall.

Besides that, the changes in the societal context have influenced the way art, is perceived. In the 21st century, it could be said that socio-economic advancements like digitalization, globalization or the focus on experience have had an impact on participation in the arts and the classical music concerts (van Eijck & Knulst, 2005; Abbing, 2019; MCICM, 2019). Thus, it becomes somehow obvious that classical music concerts must adapt to these changes while staying true to the artform. In fact, when looking at the new perspectives of classical music, some innovative trends are emerging to create a more user-oriented domain in the setting of the concert. Quoting Abbing (2019, p.26) about the reasons behind this trend "people may well agree that music should serve the visitor and the visitor should not have to serve music". In this context, my research aims to adopt an approach to classical music in a sociological context.

Of the socio-economic advancements mentioned, digitalization is the starting point for my research, with a special emphasis on the use of mobile apps as a tool for making audiences involved with classical music concerts and vice versa.

Barriers and motivations for classical music attendance

The barriers for the classical music concert and its listening can be explained from the perspective of value, risk, and competition in the eyes of the demand. Baker (2000) developed four attributes that create perceptual barriers that influence the perception of non-attendants towards the classical music concerts: (1) the nature of the art form, (2) social factors, (3) lack of knowledge, and (4) competition from other activity. The first attribute, *nature of the art form*, relates to the perception of classical music being abstract in comparison to other forms of art, such as cinema or popular music. Hereby, the classical concert experience depends on the response and interpretation of the individual and lacks content that attendants can discuss or relate to socially.

Social factors especially affect the way potential audiences regard classical music concerts. Besides the few interactions between the performers and the audiences, Baker (2000) proposes that formal social rituals can be seen as unwelcoming for non-attendants. The research of Dobson (2010), who developed interviews and focus groups with audiences showing little or no experience of classical concerts after attending orchestral concerts, adds further evidence to the argument. For example, participants in the research claimed to feel 'self-conscious' and potentially 'rude' due to the confronted difficulties in knowing how to express appreciation of the music. Besides that, Baker (2000) adds that classical music concerts are seen as exclusive and might appear superficial to non-attendants.

Lack of knowledge also plays a role when understanding the reasons given to not go to a classical music concert. There is little chance of non-attendants would not allocate their limited leisure time and money to a classical music concert. Lack of knowledge not only involves the classical music being listened, but also the program, price, seating areas, and so on. Kolb (2000), also discusses the fact that non-attendants feel that special knowledge is necessary for enjoying classical music concerts, for example when making the 'correct' value judgments about the performance. Therefore, non-attenders of classical music concerts face the issue of paying for an unknown quality (Barlow & Shibli, 2007).

The last barrier that Baker describes is the competition, understood as the *availability of substitutes*. Classical music concerts are having more access barriers than some other art forms, such as cinema or pop music.

In the case of perceived barriers for younger audiences, research has shown the perception of how certain conditions like previous knowledge, comprehension of patterns of behavior, and appreciation of the artform are necessary to attend a live classical music concert. However, these barriers should not be "dumbed down" just to attract a broader public (Crawford et al., 2014a). Coming back to Baker (2000), the research also explored the motivations for classical music attendance. Baker (2000), quoting the South Bank Centre for Audience Research (1997), identifies the different types of motivations for attending classical music concerts. By attending classical music concerts, regular audiences meet five different motivations or needs (see figure 1).

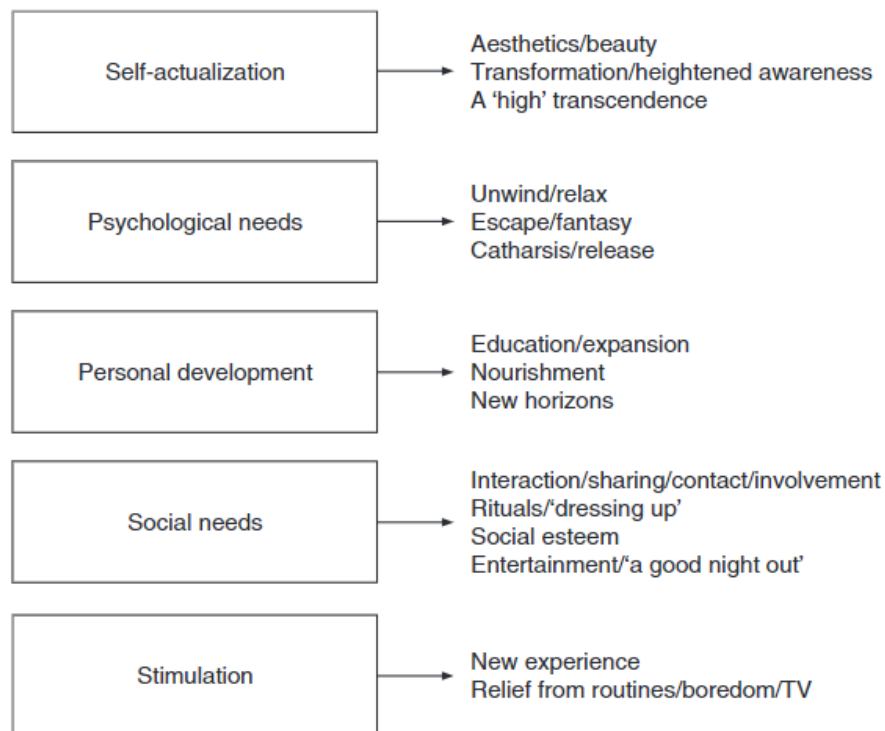
Figure 1. Motivations for classical music concert attendance

| | |
|-----------------|---|
| Ideals | Mystical union with the infinite/eternal Enhanced consciousness Magic/enchantment Transformation/transcendence Harmony of mind & body |
| Emotional needs | Unwind/relax Stimulation/excitement Escape/fantasy Catharsis/release ("thrill", "frisson") Intensity/intimacy/passion |
| Personal needs | Education/expansion/nostalgia Nourishment Trial/experimentation/discovery/challenge Broadening repertoire |
| Social needs | Interaction/sharing/contact Communion with players/audience Rituals: 'dressing up', display (and informality, comfort) Sense of humanity: 'live feel' Entertainment: 'a good night out' |
| Basic needs | Relief from routines, everyday life stresses New experience, change Sustenance, refreshment Human warmth |

Source: Baker (2000, p. 26)

In the same line, Hill et al. (2017) have gathered motivations for cultural participation associated with meeting the needs of the audience, which do not differ that much to the ones presented by Baker (2000) (see figure 2). However, research has shown that the motivations for attending classical music concerts are not homogeneous. Indeed, Baker (2000) adds that in practice the motivations for attending classical music concerts are a result of different combinations of the needs explained above. As a result, four different groups can be identified whose motivations vary depending on their frequency of attendance: (1) current attenders, motivated for the performance, discuss with friends, of having a time for reflection; (2) lapsed attenders, motivated by more practical matters such parking nearby or having tickets easy to book; (3) non-attenders, who like to dress up, eat and attend to well-known performances; and (4) rejectors, who would attend to the classical music concert to get a drink, have a fun evening and for the cheap price of the ticket (Baker, 2000).

Figure 2. Motivations for cultural participation



Source: Hill et al. (2017, p. 41)

Roose (2008) argues that the motivations of attendance can be intrinsic or extrinsic, distinguishing four different factors: specific, general, network, and media. At the same time, different items form these factors (see figure 3).

Roose (2008) argues that the main drive for attendance in classical music concerts relies on the program or the performances for specific musicians. However, it very depends on the group we are taking about. He identified three different groups in the audience regarding the frequency of attendance, who also have aesthetic dispositions towards classical music: the passers-by, the interested participants, and the inner circle. Therefore, passers-by are having extrinsic motivations for attendance such as spending time out with friends, whereas the other two groups show intrinsic motivations for attendance.

Figure 3. Motives of attendance to classical music concerts

| Factor | Item |
|---------------------|--|
| Intrinsic: specific | For a specific singer / soloist / director For a specific orchestra / ensemble |
| Intrinsic: general | I follow the programming of the house It is included in my season ticket |
| Extrinsic: network | Someone advised me to Someone invited me to come along To be together with friends |
| Extrinsic: media | The attention of the media As a result of reading a review |

Source: Roose (2008, p. 243)

Classical music and young audiences

The attendance of young people to classical music concerts is notably low. Some of the reasons why this happens are considered by Pitts (2016), explaining that the traditional setting for classical music concerts barely follows the standards for a good night out for this group, regards social interaction or value for money, yielding classical music little connection to other genres familiar to young people. Research has shown that younger generations have different perspectives and expectations of classical music concerts. Specifically, young audiences will feel more motivated to go to classical music concerts if they are provided with a more visually stimulating setting (Crawford et al., 2012). In this line, increasing informality in classical music concerts has been suggested to attract younger audiences to the hall (Baker, 2000; Kolb, 2001; Dobson, 2010; Abbing, 2019). However, audience development to attract the young ones to the classical music concert is not an easy thing to do, since they might present a great number of behavioral barriers when it comes to engaging with high-brow culture (see figure 4).

Figure 4. Behavioral barriers for engagement of young people with highbrow arts

| Type of barrier | Arts involvement is hindered by... |
|------------------------|---|
| General attitude | ... the view that it is “boring rubbish” |
| Talent | ... perceived lack of talent (“I can’t draw”, “I’m tone deaf”) |
| Discomfort | ... unfamiliarity and perceptions of irrelevance (“theatre is for snobs”, “dance is for girls”) |
| Non-stimulus | ... failing to engage (it does not deliver a buzz) |
| Unease | ... a sense of embarrassment (becoming the center of attention through participation) |
| Situation specific | ... a particular person or place (e.g. a disliked teacher) |
| Group image | ... it not being “the done thing” (especially among peers) |
| Self-image | ... an alternative self- image (“I am more into sports”) |

Source: Hill et al. (2017, p. 40)

The motivations for younger audiences should be considered when developing actions of audience development in classical music towards this group. Coming back to Roose (2008) and his classification of the classical music concert audience, most of the younger attendants are allocated in the passers-by. Also, extrinsic motivations such as going to a classical music concert following recommendations of friends are the main motives. This aligns with Michael (2017), who found out that younger audiences are interested in entertainment in any kind of form, therefore valuing social interaction over knowing about the music in the classical music concerts. Besides that, Dobson (2010), who developed research on culturally aware people aged 24-36 years old, shows that young people feel intimidated by the conventions of classical music concerts. The behavior in classical music concerts is different from other performing arts - for example, cheering, clapping between movements, chatting to each other, or drinking in the concert hall is not accepted. Therefore, it may shock non-attendants, in a way that they can even feel excluded and not belonging to the occasion (Warthenpfehl, 2019). Another concern for non-attendants is not knowing enough about classical music, and not being presented information on what they are going to listen to (Dobson, 2010).

Furthermore, music education and consuming arts during the early life will influence the role that classical music concerts will take in the life of the audience like adults, being the age a very important issue to take into account when developing new audiences for the classical music concerts (Kolb, 2001). Also, research has shown that adults who were exposed to arts as children are three to four times likely to engage with them as adults. Therefore, investing in younger audiences and encourage them to attend performing arts in childhood turns out to be a strong predictor for participation in the arts in the future (Hill et al., 2017).

However, the fact that classical music concerts are experiencing a declining (Towse, 2010) and an aging audience (Vercammen, 2017), does not mean that classical music is losing the young public. Research has shown that young audiences may not be attracted to classical music concerts due to the formal setting it has in live (Kinder & Harland, 1999; Kolb, 2001; Abbing, 2019), but they consume recorded classical music rather than going to classical music concerts (Kolb, 2001; Vercammen, 2017). Numbers show that in 2018, classical music was the 7th favorite genre in the world, being listened by 24% of music consumers¹ (IFPI, 2018). Besides that, classical music was the 6th favorite genre in China and the 4th in South Korea in 2019 (IFPI, 2019). Even if in classical music concerts age group between 65 and 79 years old is the largest one nowadays in the Netherlands (Vercammen, 2017), classical music listeners have an average age of 45.5 years old² (Mulligan et al., 2019). In fact, 30% of listeners under 35 years old listen to classical music (Mulligan et al., 2019). Therefore, young people have a proven interest in classical music listening, which potentially suggests an opportunity for classical music concerts to introduce younger listeners. However, research studies have found that young people present low commitment and uncertainty, together with the worry about classical music demanding training to be fully enjoyed (Dobson & Pitts, 2011).

Besides that, younger audiences tend to be identified as cultural omnivores. This belief states that a group of the population are attracted by a greater variety of artforms than before, especially in western countries, reflecting "emerging values of tolerance and undermines snobbery" (Warde et al., 2007). In other words, cultural omnivores participate in both low-brow (e.g.: musicals, cinema, amusement parks, pop-concerts or watching movies on TV)

¹ IFPI representative sample entails the online population aged 16-64 in the following territories: Argentina, Australia, Brazil, Canada, France, Germany, Italy, Japan, Mexico, Netherlands, Poland, Russia, South Africa, South Korea, Spain, Sweden, United Kingdom and United States.

² Mulligan (2019) bases the sample in an online consumer survey of 8,000 adult music consumers across eight markets: the USA, UK, Germany, Austria, Denmark, Sweden, Mexico, and South Korea.

and high-brow culture (e.g.: visiting museums, galleries, monumental architecture, professional plays, ballet, and classical music) (van Eijck & Knulst, 2005). Research has identified millennials as one of the main targets for performing arts since they are very flexible when it comes to making a choice of entertainment (Warthenpfehl, 2019). This tendency is seen especially in young professionals from the high and medium class, whose cultural taste includes lowbrow arts as well as highbrow arts (Michael, 2017), in which classical music is included. However, this is also a challenge for cultural organizations when it comes to ensuring the loyalty of these audiences among this group (Kubacki & Croft, 2004).

2.2. Audience development

The concept of audience development covers several stakeholders. Lindelof (2015) introduced the concept as "an umbrella term" that gathers the efforts of arts institutions regarding their artistic, social, financial, and educational values. Audience development has become relevant from the late 1980s when participation rates in cultural activities and performing arts have been static (Barlow & Shibli, 2007). In this part of the research, some of the perspectives towards audience development will be developed before mentioning some studies of audience development particularly applied to classical music concerts.

Kawashima (2000) gives an inclusive approach to the arts in which audience development can make culture reachable for everybody. Audience development is defined as "concerned with broadening the audience base in both quantitative and qualitative terms and enriching the experience of customers" (Kawashima, 2000, p. 4). This approach entails four types of audience development, being (1) cultural inclusion, (2) extended marketing, (3) taste cultivation, and (4) audience education. Thus, it could be said that audience development has a clear relationship with the marketing field that has not been overlooked in the literature, too. In this way, the "extended marketing" type aims to "arouse the latent interest in the arts of potential audiences and persuading them to come to performances whilst improving aspects of the arts which deter their attendance" (Kawashima, 2000, p. 9). However, contrary approaches to marketing and audience development have been made, for example to relying on relationship marketing instead of building strong and long-term relationships with individual audience members (Rentschler et al., 2002). Furthermore, Barlow and Shibli (2007) developed from the Ansoff Matrix, a marketing tool to evaluate business strategies, an Ansoff Matrix focused on performing arts. Hereby, four different types of audience development can be found (see figure 5).

Figure 5: Ansoff Matrix for performing arts

| | |
|---|--|
| <p><i>Same people, existing program</i></p> <p>Market Penetration Strategy</p> <p>Increasing the frequency of attendance</p> <p>Attracting back lapsed attenders</p> <p>Low risk, low cost</p> | <p><i>Same people, new program</i></p> <p>Product Development Strategy</p> <p>New products / program offered to existing audiences</p> <p>Low – Medium risk</p> |
| <p><i>New people, existing program</i></p> <p>Market Development Strategy</p> <p>Attracting new people for the first time</p> <p>Medium Risk</p> | <p><i>New people, new program</i></p> <p>Diversification strategy</p> <p>Introducing a new program for a new audience</p> <p>High risk, Higher cost</p> |

Source: Barlow and Shibli (2007, p. 106)

Some of the literature about audience development focus on the importance that arts and culture have on society, in a way that they help to create links among the community. For example, it has been considered important for community building (Olmos & Santillán-Güemes, 2000) or to create communities committed to the arts and culture (Conolly & Cady, 2001). Other definitions also add a focus to the relationship created between cultural organizations and the community in which they are established. Along these lines audience development is "an activity which is undertaken specifically to meet the needs of existing and potential audiences and to help arts organizations to develop ongoing relationships with audiences" (Barlow & Shibli, 2007, p.105) and Freeman (1996) empathize audience development as being the result of the links between cultural organizations and their environment.

As Abbing (2019) mentions, the setting of serious art is becoming more user-oriented, in a way that "music should serve the visitor and the visitor should not have to serve the music" (Abbing, 2019, p.26). This can explain the fact that the concept of audience development has also adopted a much more individualistic approach. Hence, Maitland (2000) identifies the concept of audience development with building a relationship between the individual and the culture through an organized and planned process existing in the long term.

In this definition, the word "process" suggests a conscious education, marketing, and arts strategy in the long-term for audience development. This individualistic approach also relates to the concept of comfort. This aligns with the ideas of Baker (2000), who explained that performing arts are valued according to the areas of risk that the potential audiences see. Similarly, Maitland (2000) suggests that audience development is also about shaping or changing the conventions of the arts to make the audience comfortable. However, she also adds that audience development should involve the improvement of the understanding, appreciation, and knowledge of the non-attenders, but also the regular attenders (Maitland, 2000). It can be seen how the concept of audience development involves recommendations of changing the cultural organizations and the setting of performing arts, in a way that these proposals are somehow vague about the elemental aesthetics values of performing arts. Therefore, it is also suggested that a more critical approach should be given to the concept of audience development. Marketing in the performing arts applies an economical view to musical engagement that focuses on a commercial representation of the concert and cares more about audience numbers than in the art form itself (Johnson, 2002, Sigurjonsson, 2010).

As a conclusion, it could be said that certain tensions can result in audience development to the breadth of the term. Broadly, two opposite points of view are given. On the one hand, a perspective in which the potential audiences must be attracted through education, marketing, or innovation, which can sometimes result in changing the setting of the classical music concert. On the other hand, a view in which aesthetic values prevail, and in which the audience is only the means to make cultural organizations survive.

Audience development in classical music

Audience development techniques for younger audiences gather five different innovative areas that have been developed in classical music concerts: (1) the concert experience, which involves also programming and the setting of the venue; (2), educational content provided before or during the concerts; (3) changes in prices of tickets; (4) using social media; (5) general audience development (Mitchell, 2019).

Academic studies on audience development have considered the point of view of potential audiences to classical music concerts. Darn & Pitts (2017), studied by qualitative methods the perspectives of 40 young people before, during, and after attending for the first time to a chamber music concert.

Their study shed some light on how young people see classical music concerts, that relates to some of the barriers to the live classical music attendance we explained beforehand. Although 90% of the respondents declared to be willing to go to classical music concerts, attending live classical music concerts is not a priority to them. Some of the responses to this were related to a lack of time and information, the financial risk of buying a ticket or not having people to go with (Darn & Pitts, 2017). In fact, Brown (2004) argues that the audience has reacted positively when speakers, or even the conductor or musicians, gives information about the pieces that are going to be performed. Another study of audience development from the perspective of young and culturally aware non-attendants is the one developed by Dobson (2010). The main conclusion of this research is the expressed non-belonging and intimidating feeling of not being used to the conventions of classical music concerts. The suggestions of this research towards developing audiences for classical music concerts rely on marketing, but also on the programming of these cultural organizations. This group can be reached by “educative, entertaining, and ‘traditional’ performance formats” (Dobson, 2010, p. 123). Besides that, Rizkallah (2009), suggests adapting programs to the expectations and interests of the audiences:

“More potential audience members than current single ticket buyers and subscribers stated they would attend the symphony more if additional contemporary works were featured. The age of respondents was also a significant factor when respondents were asked “I will attend more if more modern pieces were played”. Age group eighteen to fifty-four years of age reported higher levels of agreement with the statement. This may show that programming more new works may help bring in these prospective concertgoers” (Rizkallah, 2009, p. 121)

Since potential audiences are having other priorities than regular attendees, different prices are set to attract different types of audiences to the concert hall. Towse (2014) explains how in classical music, a policy of price discrimination is adopted. Different groups in the audience are having different willingness to pay. Therefore, concert halls have reduced prices for children, students, seniors, and other categories; as well as season subscriptions for regular attendants (Towse, 2014). Besides attracting more people to the concert hall, this strategy is also explained by maximizing revenues considering how the audiences have different elasticities of demand at different prices (Towse, 2014). Furthermore, empirical evidence suggests that in the long-term free concerts for certain groups may lead to buying tickets and even season subscriptions (Philliber & Whitaker, 2003).

Kolb (2001) developed research on audience development strategies related to educational concerts, with special attention to children being exposed to the orchestras by school partnership. She argues, first, that these kinds of strategies are more meant to serve the orchestras. Secondly, educational efforts are not enough to attract new audiences to the concert hall since decreasing attendance is more due to generational change and cultural irrelevance (Kolb, 2001). Therefore, some of the successful tools Kolb (2001) proposes to attract new publics involve taking the orchestra outside the concert hall to other places where people have the opportunity of socializing in an informal setting. However, it has been shown that music education engages audiences to go to classical music concerts (Pitts & Spencer, 2008; Chiat, 2009).

Also, outside academia, reports have been made to attract new audiences and engage them in classical music concerts. The report "Innovations to Save our orchestras" gathers different successful strategies of audience development in different areas, being these: (1) integration of other art forms in the classical music concert and nontraditional setting; (2) relational activities with the aim of initiation relationships in the community and introducing the orchestra to future ticket buyers and; (3), educational strategies for adult education to improve the knowledge and connection to classical music (Philliber & Whitaker, 2003). Besides that, the report also empathizes how different "products" in the classical music concert should be adopted depending on the different audiences that are aimed to be attracted.

Mobile apps and audience development

Academic research on the use of apps in classical music as a tool for audience development is relatively scarce. Yet some relevant studies shed light on topics such as apps as a branding tool of the classical music concert. Gosling et al. (2016) researched the development of the app Student Pulse for the London Symphony Orchestra designed to engage and sell discounted tickets to students. The study carried over 80 students shows how the app turned to be successful, making students buy tickets to the symphony orchestra with the support of student ambassadors and expanding the app to other ten orchestras in London (Gosling et al., 2016). Also, in the UK, The City of Birmingham Orchestra developed a "first-timers guide" online, aiming to give a more welcoming approach to new audiences to the hall. The guide appealed to create an emotional engagement with potential audiences, including questions such as "how do I know if I'll enjoy it?", Spotify links, and recommendations of pieces according to different grades of emotion and musical challenge (Pitts, 2016).

Besides that, studies have also focused on how social media apps can attract potential audiences to the concert hall. Bennet's (2014) study outside the world of classical music notes that online practices in social media during the concert such as posting, texting, and tweeting not only engage audiences but also allows potential fans to "live vicariously through others updating in real time" (Bennet, 2014, 93). Pitts (2016) discusses Bennet's findings adding that encouraging classical music organizations to adopt a more informal communication in social media apps might be valuable in concert hall settings. Furthermore, insights in social media about the performance and "behind the scenes" clips can help less familiarized audiences to feel more informed about performing arts (Walmsley, 2016), thereby overcoming one of the previously mentioned barriers in the case of classical music attendance. Related to the consumption of videos, it has been reported that the audiences use platforms like YouTube to familiarize themselves with classical music pieces that they have not listened before, and therefore, they can be encouraged to attend the concert in the last place and engage with classical music organization (Crawford et al., 2014b).

A little number of studies about mobile apps intended to present information that complements the music during the classical concert are also found. However, Brown (2004) studied the viability of the so-called "concert companion", that is, hand-held PDA devices aimed to offer knowledge about the concert. These devices were introduced in American concert halls during the 90s. The findings of Brown (2004) suggest that, even though the audience feedback was positive, concert companions did not succeed due to three facts: (1) it is expensive to provide and maintain the PDAs to the audiences in the concert -which has become obsolete and new possibilities for concert companions could be studied with mobile phones- ; (2) it is costly and takes time to write the information for each concert and; (3) there are disparate opinions about the concert companions, resulting that part of the audience enjoy it but others do not. In this line, Pitts (2016) suggest that "the disjunction between the rarefied atmosphere of a classical concert hall in which using mobile phones, for example, does not form part of the accepted code of behavior, is an obvious inhibitor to digital innovation, particularly when the opinions (and ticket purchasing habits) of regular audience members hold more away than those of newcomers" (Pitts, 2016, p. 66).

Later research has shown that apps that give insights about the concert might not be that popular since it is perceived that using the mobile phone during the concert would be non-respected by the rest of the audience (Crawford et al., 2012).

Besides that, innovations alike include the tablet app PHENICX, a research project funded by the European Union, and in which The Royal Concertgebouw Orchestra (The Netherlands) and The Escola Superior de Música de Catalunya (Spain) collaborated. During the classical music concert, PHENICX shows the score, at the same time it explains the music being listened to the concert and displays a feed of comments made by other audience members. One of the highlights of the feedback provided by the audience suggests that, even though the use of devices and apps during the concert might be rejected by frequent audiences, "under a situation in which novel audiences would be targeted in a dedicated non-conventional concert setting, subjects thought that such on-site solutions, also involving tablets, could be more acceptable" (Liem et al., 2013, p.2). Yet, nowadays apps such as Wolfgang, or the app Notes, developed for the BBC Orchestra, function as a concert companion. Other apps include different features (such as live video, or the possibility of contacting the musicians) in a way that they can be used before, during, and after the concert., like the case of the OnStage app (Classical: NEXT, 2020). These mobile apps provide the audience information about the concert being designed in a way to not distract other people or locating the app users in a different part of the concert hall, being its use accepted by several orchestras and venues (Baume & Highfield, 2020; Wolfgang app, n.d.).

3. Research question, aim and hypotheses

From the theoretical framework, it can be concluded that classical music is experiencing several challenges in what relates to encouraging young audiences to attend classical music concerts. It has been claimed that the traditional setting of classical music concerts is not appealing to the younger audience, even resulting in being intimidating for those that are not familiar with classical music concerts (Dobson, 2010). For example, younger audiences not familiar with classical music concerts may seek a setting that is more visually attractive (Crawford et al., 2012). However, the current omnivore audience panorama explains how this group is interested in both low-brow and high-brow arts. Therefore, omnivorosity presents an opportunity when it comes to attracting new audiences, being yet a challenge to build customer loyalty towards them. Also, price differentiation is one of the existing mechanisms to attract this collective to the hall. Besides that, young audiences regard performing arts as a social activity, in which they can interact with other members of the audience or have a nice time with friends (Michael, 2017).

Another important barrier to consider is the lack of knowledge of classical music. This involves the program, the prices, or the risk of not knowing for what they are paying for, but also the understanding of the art form. Non-frequent attendants for classical music concerts have shown concern for not being presented explanations on what they are going to listen to (Dobson, 2010). This explains how newer attendees are reacting positively when speakers, or even the conductors and musicians, give information about the pieces that are going to be played.

Besides that, digital technologies are playing a role when it comes to approaching classical music concerts to young and potential audiences. One of the latest innovations in the classical music hall has been bridging the information gap using mobile apps that act as concert companions. In the last part of the theoretical framework was said that apps might be not that popular since it is perceived that using the mobile phone in the concert hall would be disrespectful (Dobson, 2010). Also, that concert companions could be appealing for a part of the audience, but not attractive for some of them (Brown, 2004). However, it has been also claimed that this kind of tools can be useful "under a situation in which novel audiences would be targeted in a dedicated non-conventional concert setting" (Liem et al., 2013, p.2).

Therefore, the current study has been motivated for the 1) existing gap in recent academic research on the use of both, concert companions and mobile apps in classical music concerts and 2) the necessity of attracting younger audiences to the classical music hall. Therefore, we have the main research question *to what extent could the use of apps during the classical music concert be a tool for audience development for young people between 18 and 34 years old?* This research question also leads to the next research subquestions:

1. Which enough reasons for audiences aged 18-34 to not attend classical music concerts can be discovered?
2. What are the characteristics of potential users aged 18-34 of mobile apps focused on live classical music?
3. How can mobile apps on classical music concerts be integrated into the programming of orchestras and ensembles?
4. What other alternatives to mobile apps are being implemented to attract young audiences to live classical music concerts?

The objective of the research is to explore how mobile apps are being used already or how they could be implemented as an audience development tool by different classical music organizations to attract younger audiences to the concert. The subquestions above aim first to uncover the motivations that current and potential audiences might have to use mobile apps in classical music concerts and what assets the app would include. Secondly, to discover the sociodemographic characteristics of the more attracted group, as well as the attitude they have towards classical music and other cultural activities. This market research is the starting point to design the overall strategy to implement the app and can lead to different options in programming or marketing to let the app known within the younger audience. Third, the interviews with some experts from the classical music world might give insights about the use of this tool, the pros, and cons of this option, and the limits that mobile apps development could present in the concert.

As explained later in the methodology part, on the one hand, the research delves into sub-questions 1 and 2 using quantitative methods. On the other hand, sub-question 3 and 4 are explored using qualitative methods. Also, regarding the quantitative part of the research, some hypotheses have been elaborated:

- H1: The young individuals with a lower frequency of attendance to classical music concerts would be more willing to use mobile apps during the classical music concert (based on Liem et al., 2013, p.2: “under a situation in which novel audiences would be targeted in a dedicated non-conventional concert setting, subjects thought that such on-site solutions, also involving tablets and mobile apps, could be acceptable”).
- H2: The higher the lack of knowledge barrier (Baker, 2000) to not to attend classical music concerts, the higher the willingness to use an app during the classical music concert.
- H3: Individuals that are having a greater willingness to learn about classical music (Baker, 2000; Roose, 2008, Hill et al., 2017) would have a greater willingness to use mobile apps during the classical music concert.

4. Methodology

The methodology for this research is based on mixed methods. Due to the lack of recent studies about the use of mobile apps during classical music concerts, the current study aims to collect data among a sample of people aged 18 to 34 years old. The conclusions gathered by will be discussed with professionals from the classical music sector. In this way in case the option of using mobile apps in a classical music concert is viable, we will delve into the possibilities they can bring as well as the barriers for its use. Quantitative methods are used to research the potential market of the mobile app among the young audience. After collecting the data, the results are discussed using qualitative methods aiming to know how mobile apps can be implemented considering the results. In case that the results show that potential audiences are not interested, or that the classical music organization being interviewed is not considering it, some interviews of qualitative method might delve into other initiatives of audience development.

4.1. Quantitative research

Construction of the questionnaire

The quantitative part of the research is aimed to resolve research subquestions 1 and 2 (*Which enough reasons for audiences aged 18-34 to not attend classical music concerts can be discovered? and what are the characteristics of potential users aged 18-34 of mobile apps focused on live classical music?*). To do so, an online survey questionnaire with a total of 36 items has been developed. The questions of the survey are based on the literature from the theoretical framework, and its complete guide can be found in the Appendix A. The questionnaire presents four different parts or information blocks.

- First block: sociodemographic questions about the individual, such as age, gender, or level of education. These questions have been formulated in previous research elaborated by The Netherlands Institute for Social Research (SCP).
- Second block: Behavioral aspects and habits about the individual. Here it is intended to gather information about the frequency of attendance to classical music concerts and other activities, the existence or early exposure to classical music, the level of cultural omnivorousness, and so on.

Therefore, the questions have been based on the previous research mentioned in the theoretical framework such as Kolb (2001), Pitts & Spencer (2008), Chiat (2009), Vercammen (2017), Mulligan et al. (2019), or van Eijck & Knulst (2005).

- Third block: barriers and motivations for classical music attendance. On the one hand, the motivations have been based on the research of Roose (2008), distinguishing some questions related to extrinsic and intrinsic motivations for attending classical music concerts. The questions also relate to the needs met presented by Baker (2000) and Hill (2017). On the other hand, questions about the barriers for attendance have been based mainly on Baker (2000), but also on Dobson (2010) or Abbing (2019).
- Fourth block: the perspective of using mobile apps in classical music concerts. Even though there is enough literature about this topic, we could deduct some of the questions from the studies of Dobson (2010), Liem (2013), Gosling et al. (2016), Crawford et al. (2012), or Brown (2004). Besides that, a focus has been made on apps used as concert companions mentioning some of the characteristics that the app Wolfgang has. In this part, statements in favor and against the use of mobile apps are included to not get a bias opinion from the reader.

Besides the mentioned literature, the questionnaire (see appendix A) has been constructed following the instructions of Hill et al. (2017) on market research for arts marketing. For instance, since the questionnaire aims to understand attitudes of current and potential audiences and their opinions towards mobile apps, the information blocks three and four are based on scaled questions (Hill et al., 2017, p. 84). A more elaborated questionnaire guide can be found in the appendix B.

Sampling

The questionnaire has been targeted to young audiences, who have been defined as the age group between 18 and 34 years old in the research. In the theoretical framework literature that researches on young audiences from different age groups is presented: Dobson's (2010) study focused on people aged 24 - 36, Vercammen's (2017) on those aged 18-44, Crawford et al. (2012) on people aged 18-25, and so on. For our research, it has been found interesting to try to target also young professionals, who have been the most prone to cultural omnivores (Michael, 2017).

Taking into account the different age groups found in the research of Roose (2008), Vercammen (2017), and also in the Netherlands Institute for Social Research (SCP), the two first were selecting, focusing the research on people aged 18-34-year-old. The separation in two groups has been done as in the studies of Vercammen (2017) and Roose (2008), but also because, these two groups represent the generation Y and Z. They have differences in the context, behavior, and consumption that might be interesting to consider (see figure 6).

Figure 6. Differences between generations Y and Z

| | Gen Y (millennial) 1980-1994 | Gen Z 1995 - 2010 |
|--------------------|---|---|
| Context | Globalization Emergence of the internet | Mobility and multiple realities Social networks Digital natives |
| Behavior | Globalist Questioning Oriented to Self | Undefined ID "Communaholic" "Dialoguer" Realistic |
| Consumption | Experience Festivals and Travel Flagships | Uniqueness Unlimited Ethical |

Source: Francis, T., & Hoefel, F. (2018)

The tendency of making this distinction within groups has been observed in the literature and studies developed by national institutes of research. In what respects previous studies about audience development in classical music with a focus on young audiences, there is barely an explanation of this general demographic criteria. Therefore, it has been assumed that the separation before and after 34 years old represents the turning point between having a family or not. Since the target of this research relies more on students and young professionals who still have the time to enjoy cultural activities out, the age group of 18-34 has been considered. However, people older than 34 might be more likely to have other types of barriers to attend classical music concerts, more related to the amount of leisure time they have.

Data collection

Using Google Forms, the online survey was spread among young people aged from 18 to 34. This platform, Google Forms, has been chosen for the simplicity and mobile-friendly view for the responder, but also when analyzing the results.

Google Forms allows the user to study the answers individually and globally through graphics that are generated by the platform. In addition, an Excel spreadsheet can be obtained at any time with all the responses of the sample. The sampling method used for sending the questionnaire has been non-probabilistic snowball sampling, which consists of contacting groups of people relevant for this study (in this case, young people whose ages are between 18 and 34 years old) and then use these to make contact with others (Bryman, 2016). Besides contacting the groups directly, the questionnaire was published on Facebook groups related to music and culture and the social media accounts of the researcher (specifically Facebook, LinkedIn, and Instagram).

Before starting to spread the questionnaire, a pretest was made with five different people from different backgrounds. The pretest led to do some small changes in the redaction of the questionnaire and to add the nationality question in the block about the sociodemographic items. Over a period of three weeks, a total of 144 responses were collected.

Data analysis

The coding of the quantitative data was realized in Excel and exported to SPSS. Information about the coding can be found in the questionnaire guide (Appendix B). As can be seen in the following pages of the results part, the sociodemographic characteristics of the sample (first information block), as well as their behavior towards culture (second information block), have been presented first. Due to the evolution of the COVID-19 during the weeks that the questionnaire was spread, the individuals could have hesitated about the possibility of attending live classical music concerts during the upcoming months. The feedback of some of the individuals that responded to the questionnaire during the third week confirmed this belief. Therefore, item 9 of the questionnaire "on a scale from 0-10, how likely is that you will attend a live classical music concert during the next 3 months?" has not been considered in the analysis.

The variables regarding the barriers, motivational factors, use of apps, and willingness to pay for live classical music concerts have been compared within different groups. On the one hand, comparisons between the age groups of 18-24 and 25-34 are made using the Mann-Whitney U Test, which assesses the differences between two groups (McKnight & Najab, 2010a). On the other hand, comparisons among the frequency groups for attending classical music concerts are made using the Kruskal-Wallis test, which estimates the differences among three or more independently sampled groups (McKnight & Najab, 2010b).

With this last type of test, the H1 of the research has been tested. H2 and H3 have tested using the Pearson correlation test since this method examines the relationships between interval and ratio variables (Bryman, 2016).

4.2. Qualitative research

Research subquestions 3 and 4 (*how can mobile apps on classical music concerts be integrated into the programming of orchestras and ensembles? and what other alternatives to mobile apps are being implemented to attract young audiences to live classical music concerts?*), have been explored by qualitative methods. On the one hand, the possibility of using mobile apps as a tool for audience development has proven to be viable, as it is being already used by some orchestras in the Netherlands, Belgium, and Germany (Wolfgang app, n.d.). The implementation of mobile apps in the classical music concert should be done carefully. Even if they result to be attractive to the younger (potential) audiences, changes and innovation in the classical music setting are limited since authenticity and staying true to the music is also relevant nowadays (Sigurjonsson, 2010; Abbing, 2019). Thus, research subquestion 3 has been considered relevant. On the other hand, some of the quantitative results of the research have hinted better alternatives to attract engage young audiences to the concert hall. For instance, differences in attitude towards the use of mobile apps during live classical music concerts have not been found among the different groups of the frequency of attendance. Also, there is a potential feeling of self-consciousness when using mobile apps during live classical music concerts. Therefore, subquestion 4 has been considered relevant to delve into other successful ways to attract young audiences to live classical music concerts.

The chosen method has been in-depth semi-structured interviews since they have been identified as "conversations with a purpose, often used to encourage the interviewee to talk perhaps and some length, about a particular issue or range of topics" (Seale, 2004, p. 181). As this method requires, an interview guide has been elaborated with some questions to be asked (Bryman, 2016) (see appendix C). Besides that, this method allows to establish a conversation with the interviewed and delve into topics that can be considered relevant for the research.

Selection of participants

For the interviews, nine experts from symphony orchestras and ensembles have been contacted. Three of them did not react to the request and one of them was not able to cooperate due to the situation with the COVID-19.

Three members from orchestras and one ensemble showed their willingness to participate in the research: Philharmonia Orchestra (United Kingdom), Ragazze Quartet (The Netherlands), Galicia Symphony Orchestra (Spain), and the Rotterdam Philharmonic Orchestra (The Netherlands) (see table 1). Another ensemble also showed interested in the research, but their availability could not suit the deadlines dates for the thesis. Despite the encountered problems, the final list of participants can be considered relevant enough for the purpose of the research. On the one hand, one of them have been selected for using mobile apps during live classical concerts already, such as the Wolfgang App. On the other hand, the ones not using mobile apps have been selected for being known as innovators in classical music and its setting. Some of them have to the innovation award provided by Classical: NEXT in any of their editions and have already evolved audience development initiatives that can be considered successful.

Table 1. Interview participants

| | Name | Orchestra / Ensemble | Position | App during classical music concerts |
|----|----------------|--|------------------------------|--|
| R1 | Jeanita Vriens | Ragazze Quartet | Violinist | No |
| R2 | Tom Spurgin | Philharmonia Orchestra | Audience development manager | No |
| R3 | Andrés Lacasa | Orquesta Sinfónica de Galicia (Galicia Symphony Orchestra) | Orchestra manager | No |
| R4 | Martin Baai | Rotterdam Philharmonic Orchestra | Innovator | Yes |

The participation of the Ragazze Quartet has been considered relevant since it represents the example of an innovative music ensemble, as a contrast with the other interviewed coming from orchestras. Their program presents a combination of classical music tradition mixed with unconventional settings. They also collaborate with other artists to combine classical music with other disciplines such as theatre, dance, and literature (Ragazze Quartet, n.d.). This aligns with the results of the report written by Philliber and Whitaker (2003) mentioned in the theoretical framework, which suggests that some innovations that can attract young audiences could be made by non-traditional concerts and thematic programming. Besides that, Kolb (2001) suggested that young audiences can be reached by “educative, entertaining, and ‘traditional’ performance formats” (Dobson, 2010, p. 123), something that the Ragazze Quartet does in its performances.

The Philharmonia Orchestra based in London (UK) has been considered relevant for the research due to its innovative approach towards audience development. The orchestra is well-known for the use of new technologies that go beyond recording and broadcasting, being a pioneer in including VR experiences in the concert hall. Its project *The Virtual Orchestra* – a six-week festival of digital installations, VR, workshops and community engagement, and fringe performances – has been one of its more ambitious audience development projects to date (Philharmonia Orchestra, n.d.). As it was explained in the theoretical framework young audiences feel more motivated to go to classical music concerts if they are provided with a more visually stimulating setting (Crawford et al., 2012), and in the case of the Philharmonia Orchestra, this is facilitated using technology. That also aligns with the mentioned ideas of Pitts (2016), who explained how traditional setting for classical music concerts barely follows the standards for a "good night out" in what regards social interaction.

The Orquesta Sinfónica de Galicia (Galicia Symphony Orchestra) is one of the greatest Spanish Orchestras and is relevant to the research due to its large YouTube Project archive and its initiatives in education to younger audiences (Orquesta Sinfónica de Galicia, n.d.). In this case, the YouTube Project archive can help less familiarized audiences to feel more informed about performing arts (Walmsley, 2016), by showing insights about the performance and "behind the scenes" clips. This also helps to overcome the barrier of lack of knowledge and not knowing what to expect from classical music concerts. Also, the extensive educational program of the orchestra involves a choir for kids, two youth orchestras, and an extensive program of didactic concerts that besides classical music, involves other art forms and styles such as rap, rock, or bossa-nova. In fact, music education and consuming arts during early life will influence the role that classical music will take in the life of the audience like adults Kolb (2001). Therefore, investing in younger audiences and encourage them to participate in classical music during childhood turns out to be a strong predictor for participation in the arts in the future Hill et al., (2017).

The Rotterdam Philharmonic Orchestra has an extensive education program and presents a combination of innovation and tradition in their concerts, including classical music in informal settings to engage with non-traditional audiences (such as Core Classics or the Lunch Concerts). This aligns with providing an adapted presentation to the background of the potential audiences by increasing informality (Baker, 2000; Abbing, 2006).

Besides that, the strategy of audience development of the Rotterdam Philharmonic Orchestra also matches with the studies of Kolb (2001), Hill, et al., (2017), Philliber and Whitaker (2003), and (Dobson, 2010), which have been already mentioned in the description of the other orchestras and ensembles participating in the interviews. However, the main reason why this orchestra is considered relevant for the research is the current usage of mobile apps during live classical music concerts. Therefore, this orchestra is in an ideal position to give to the research valuable first-hand information.

Data collection and analysis

The four interviews took place between the 30th of April and the 12th of May. All of them took place via online conference platforms such as Skype and Zoom. All the participants agreed with having the interview recorded, being possible the transcription using online tools and mobile apps to facilitate the process, such as oTranscribe and the Live Transcribe app. Once that all the interviews were transcribed, they were analyzed using the Quirkos software and coded. The interviews have been post-coded based on a thematic analysis, which has been conducted categorizing the responses according to different themes.

The themes found in the interviews have been the mission of the orchestra/ensemble, young audiences, and mobile apps. Some of the codes are related to academic theories about audience development and young audiences, whereas some other topics that have been considered relevant for the study, but also further lines of research. Because of the low number of participants, it was difficult to find repetition for coding the interviews using repeated keywords among the different participants. For example, R1 mentioned practices to include refugees in the audience, R2 mentioned a project focused on LGTBI communities, and R3 talked about bringing music to kids with risk with exclusion. These three subcodes, even if talking about different aspects that were not mentioned in other interviews, have been gathered under the code "accessibility" for the "mission" theme. Since one of the interviews was in the Spanish language, the original quotation Since one of the interviews was in Spanish, the original quotations appear as footnotes when commenting on the results of the study. The coding guide for the interview can be found in appendix D. Complete transcriptions and recordings are available upon request.

5. Results

5.1. Quantitative results

Over three weeks, data from 144 respondents were collected with the online questionnaire. Ten participants were not considered since they did not belong to any of the age groups whom the research was targeted. The final sample consisted of the data of 134 young respondents from 36 different nationalities being Spanish (34.3%), Italian (10.4%), Greek (7.5%), Belgian (6%), and Dutch (5.2%), being the five biggest groups. Table 2 shows the sociodemographic characteristics of the respondents from the responses of the first block of the questionnaire.

Table 2. Sociodemographic profile of questionnaire respondents (N = 134)

| | Frequency | Percentage |
|---------------------------------|-----------|------------|
| Age group | | |
| 18-24 | 71 | 53% |
| 25-34 | 63 | 47% |
| Gender | | |
| Male | 52 | 39% |
| Female | 81 | 60% |
| Prefer not to say | 1 | 1% |
| Education | | |
| Primary education | 0 | 0% |
| Secondary education | 4 | 3% |
| Vocational education | 4 | 3% |
| University degree | 126 | 94% |
| Employability | | |
| I work full-time | 40 | 30% |
| I work part-time | 8 | 6% |
| I am a student | 55 | 41% |
| I am self-employed / freelancer | 8 | 6% |
| I am not employed | 11 | 8% |
| Other | 12 | 9% |

Table 3 shows the responses to some of the items of the second block of the questionnaire. As explained in the methodology part, the item 9 of the questionnaire "on a scale from 0-10, how likely is it that you will attend a live classical music concert during the next 3 months?" has not been considered in the analysis due to the developments of the COVID-19's crisis. 19% of the respondents were not exposed to classical music when they were kids or teenagers, 26% never listens to classical music at home, and only 3% never considers going to cultural events. However, the percentage of respondents never attending classical music concerts reached the 47% percent of the sample.

Table 3. Responses to items 6, 7, 8 and 11 (N=134)

| | Frequency | Percentage |
|--|-----------|------------|
| Were exposed to classical music as kids / teenagers | | |
| Yes | 109 | 81% |
| No | 25 | 19% |
| Listen to classical music at home | | |
| Never | 35 | 26% |
| 1-4 times per month | 62 | 46% |
| 5-10 times per month | 13 | 10% |
| More than 10 times per month | 24 | 18% |
| Attend live classical music concerts | | |
| Never | 63 | 47% |
| 1-4 times per year | 50 | 37% |
| 5-10 times per year | 9 | 7% |
| More than 10 times per year | 12 | 9% |
| Attend other cultural events | | |
| Never | 3 | 2% |
| 1-4 times per month | 98 | 73% |
| 5-10 times per month | 21 | 16% |
| More than 10 times per month | 12 | 9% |

Cultural awareness can be observed in the sample looking at the responses of item 12. The individuals participated in a total of 14 different cultural expressions/genres during the last three months at the moment of doing the questionnaire.

Film appeared to be the most popular cultural expression among the sample (115 respondents), followed by exhibitions in museums (75) and pop/rock concerts (64). In the case of classical music, they were 32 respondents the ones that participated (see table 4). Besides that, 55% of the respondents participated in 5 or more genres or cultural expressions, both high-brow and low-brow expressions, denoting a tendency towards cultural omnivorousness.

Table 4. Frequency of participation in the different genres/expressions (item 12)

(N=134)

| | Frequency | Percentage |
|-------------------------------------|------------------|-------------------|
| Musicals | 16 | 12% |
| Film | 115 | 86% |
| Pop / Rock Concerts | 64 | 48% |
| Exhibitions in museums | 75 | 56% |
| Exhibitions in art galleries | 48 | 36% |
| Ballet / opera | 20 | 15% |
| Classical music | 32 | 24% |
| Theatre play | 28 | 21% |
| Music Festival | 32 | 24% |
| Other | | 6% |
| Spoken word | 2 | |
| Jazz concerts / jams | 2 | |
| Art fairs | 2 | |
| Modern dance | 1 | |
| Music conferences | 1 | |

Item 10 "what is the maximum price you would be willing to pay for a live classical music concert?" has been looked at taken into account the different groups of respondents according to the frequency they attend live classical music concerts. The great willingness to pay that the attenders to classical music concerts between 1-4 times per year present stand out, with a registered maximum of 200€ to pay for a live classical music concert by two of the respondents.

However, more respondents with a frequency between 5 and 10 times per year and more than 10 times per year would be needed to make a more accurate comparison. Table 5 shows the values of the means and standard deviations of each of the groups. For those values that had not been given in euros, the corresponding exchange rate has been applied.

Table 5. Mean and standard deviation for item 10 "what is the maximum price you would be willing to pay for a live classical music concert?" differing from the groups of the frequency of attendance to live classical music concerts (item 8)

| | Frequency of attendance to live classical music concerts | | | |
|---------------------------|--|------------------------|------------------------|-------------------------------|
| | Never (N=63) | 1-4 per year (N=50) | 5-10 per year (N=9) | > 10 times per year (N=12) |
| Mean (€) | 37,02 | 54,20 | 37,22 | 73,33 |
| Standard deviation | 25,60 | 41,04 | 10,03 | 28,07 |

Motivations and barriers for attending classical music concerts

As explained in the methodology, the third block of the questionnaire consists of items related to barriers and motivations for live classical music attendance. To give an overview of the responses that were collected using the questionnaire, the means and the standard deviations of each item have been calculated. This way, the motivations, and the barriers of the sample for attending live classical music concerts can be understood. Besides that, the analysis also delves into the contrasts of motivations and barriers among the groups with different frequencies of attendance to live classical music concerts (based on item 8).

Table 6 shows the means and the standard deviations of the statements about motivations of attendance to classical music concerts. The mean value is based on a scale of 1–7 (1 = strongly disagree; 7 = strongly agree). The high motivation of the sample to attend classical music concerts because "someone invited me to come" means the fulfillment of social needs when attending live classical music concerts. To a lesser extent, the sample attends classical music to meet the needs related to stimulation and exploration of the individual - "I want to experience something new" - (Hill et al., 2017) or personal development - "I want to learn more about classical music" (Baker, 2000; Roose, 2008; Hill et al., 2017).

**Table 6. Descriptive values of the motivations of attendance to live classical music concerts
(N = 134)**

| | Mean | Standard deviation |
|--|-------------|---------------------------|
| A specific soloist / conductor / ensemble / orchestra | 5,28 | 1,46 |
| A specific music piece being played | 5,19 | 1,55 |
| I follow the programming of the concert hall | 3,93 | 1,73 |
| Someone invited me to come | 5,73 | 1,21 |
| I saw it announced in the media | 4,66 | 1,28 |
| I want to experience something new | 5,33 | 1,35 |
| I want to relax | 4,78 | 1,58 |
| I want to learn more about classical music | 4,99 | 1,45 |

Next, a Kruskal–Wallis H test (also known as one-way ANOVA on ranks) has been executed with a significance level of $\alpha = 0.05$. Significant differences within the four groups have been found on the motivations "a specific soloist/conductor/ensemble/orchestra" ($p=.000$), "a specific music piece being played" ($p=.000$), and "I follow the programming of the concert hall" ($p=.000$). These statements relate to the intrinsic motivations for attendance mentioned by Roose (2008). Graphic 1 shows the differences between the groups on intrinsic motivations for attendance. The group that attends live classical music concerts more than 10 times per year has the greater motivation on seeing a specific soloist, conductor, ensemble, or orchestra perform. The same happens with the group that attends classical music concerts between 1-4 times per year. The group that attends classical music concerts between 5 and 10 times per year is the most motivated, however, in seeing a specific music piece being played.

Graphic 1. Differences in mean values for intrinsic motivations of attendance to live classical music concerts

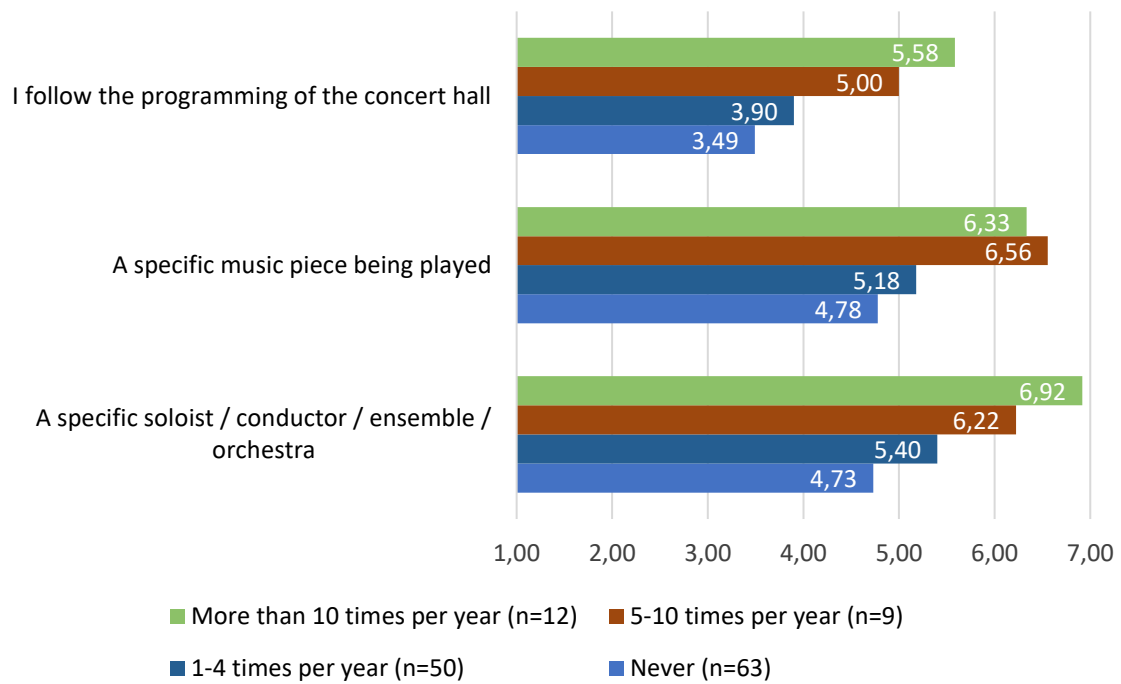


Table 7 shows the mean values of the sample for the items that represent barriers to attend classical music concerts. The availability of substitutes for classical music concerts presented the main barrier for our sample.

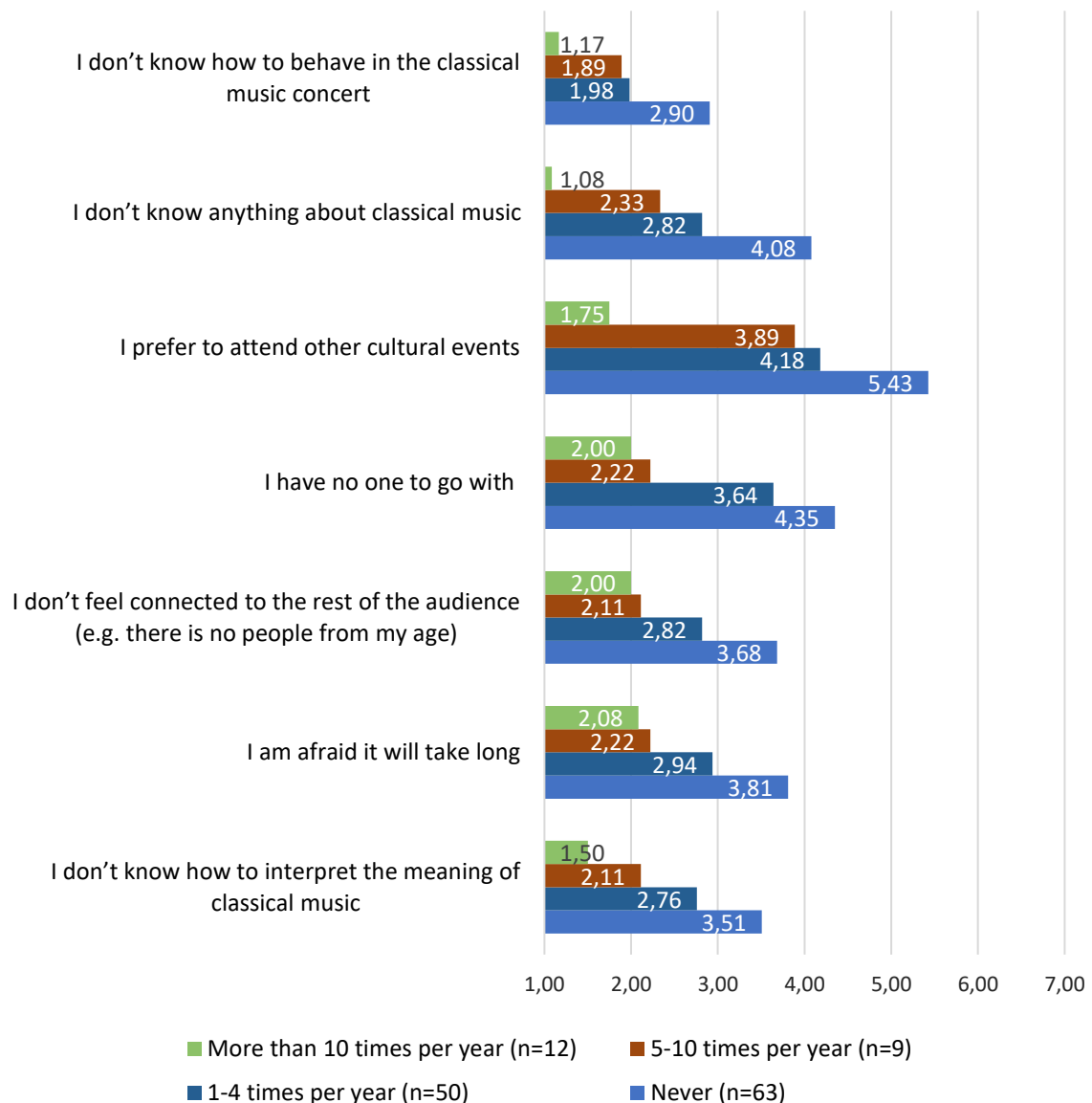
Table 7. Descriptive values of the barriers of attendance to live classical music concerts

(N = 134)

| | Mean | Standard deviation |
|---|------|--------------------|
| I do not know how to interpret the meaning of classical music | 2,96 | 1,68 |
| I am afraid it will take long | 3,22 | 1,87 |
| I do not feel connected to the rest of the audience | 3,10 | 1,72 |
| I have no one to go with | 3,73 | 1,98 |
| I prefer to attend other cultural events | 4,53 | 1,89 |
| I do not know anything about classical music | 3,22 | 1,79 |
| I do not know how to behave in the classical music concert | 2,34 | 1,58 |

However, all the items related to barriers for attendance for live classical music concerts presented differences in their distribution when the Kruskal–Wallis H test was applied. Therefore, differences in the barriers of attendance were presented in the statements "I don't know how to interpret the meaning of classical music" (p=.000), "I am afraid it will take long" (p=.002), "I don't feel connected to the rest of the audience" (p=.001), "I have no one to go with" (p=.000), "I prefer to attend other cultural events" (p=.000), "I don't know anything about classical music" (p=.000) and "I don't know how to behave in the classical music concert"(p=.001). That is, Graph 2 presents differences in mean values for the statements related to barriers of attendance. The mean value is based on a scale of 1–7 (1 = strongly disagree; 7 = strongly agree).

Graphic 2. Differences in mean values for barriers of attendance to live classical music concerts



Using mobile apps

The fourth block of the questionnaire was formed by items related to the use of mobile apps during live classical music concerts. To understand the overall perspective of the sample towards the use of mobile apps, the means, and the standard deviations of each of the items have been calculated and shown in Table 8. The mean value of the items is based on a scale of 1–7 (1 = strongly disagree; 7 = strongly agree).

The high mean in the item "I find using mobile phones during the classical music concert inappropriate" aligns with the findings of Crawford et al. (2012), who exposed that apps that give insights about the concert might not be that popular since it is perceived that using the mobile phone during the concert would be non-respected by the rest of the audience.

Also, "I am afraid of missing what is happening on stage if I am looking at my phone" is the item that registered a greater level of agreement within the sample (5.62/7). However, "I would use mobile apps that give me a better context about the music being played" also registered a relatively high level of agreement (5.26/7). As mentioned in the literature review, Brown (2004) suggested that, even though the audience feedback was positive, the use of concert companions (in this case, mobile apps as concert companions) is enjoyed by part of the audience while the others do not. Therefore, the fear of missing what is happening on stage, besides not being appropriate, can be one of the possible reasons.

Even though the results for "I would use mobile apps that give me a better context about the music being played" are relatively high (5.26/7), the item "I would use mobile apps during the concert if they are adapted to the setting of the classical music concert (e-g. dark screen with no bright, muted notifications from other apps, etc.)" registered a lower level of agreement (4,34/7). The results of these two statements might suggest that mobile apps designed to know more about classical music can be attractive for the young audience, but not necessarily during the concert.

There is also a great level of agreement on the statement "Mobile apps to educate new listeners can be a good introductory experience to non-familiar audiences to classical music concerts" (5,39 / 7). This matches with Liem et al. (2013), who suggested that mobile apps and other devices might be accepted within a setting that aims to target novel audiences.

Table 8. Descriptive values for items related to the use of mobile apps during live classical music concerts (N = 134)

| | Mean | Standard deviation |
|--|------|--------------------|
| Mobile apps might make the classical music concert interactive, increasing the participation of the audience | 4,07 | 1,75 |
| I find using mobile phones during the classical music concert inappropriate | 5,34 | 1,55 |
| I would use mobile apps during the concert if they are adapted to the setting of the classical music concert | 4,34 | 1,92 |
| I am afraid of missing what is happening on stage if I am looking at my phone | 5,62 | 1,42 |
| I would use mobile apps that give me a better context about the music being played (historical context, the life of the composer, explanation of the music, etc.) | 5,26 | 1,45 |
| I would use mobile apps that teach me how to listen to classical music | 4,40 | 1,75 |
| Mobile apps to educate new listeners can be a good introductory experience to non-familiar audiences to classical music concerts | 5,39 | 1,50 |
| Mobile apps would distract me from listening to the music | 4,97 | 1,68 |

The respondents were asked for the maximum price they are willing to pay for this app, having three groups: (1) one-time payment, (2) subscription model, (3) free app. The mean price suggested for the one-time payment was 5€ (N=96) and the one for a monthly subscription was around 7,99€ (N=7). The rest of the respondents (N=31) expressed that they would like the app to be for free. Some of them gave the reasons why the app should be for free, arguing that "You already pay the concert", "I do not like to pay for any app", or that "somehow as a musician, I do not feel like I would use it if it is not for free, but I guess if it is good as an outsider, I will be up for something cheaper than 3 euros/month". However, outcomes of the Kruskal–Wallis H test with a significance level of $\alpha = 0.05$ show that differences in the distribution of item 36 are not found among the different frequency groups of attendance to live classical music concerts (item 8) and listening to classical music at home (item 7).

Table 9. Results Kruskal–Wallis test for the distribution of the item 36 among the four frequency groups for listening to classical music (item) and attending to live classical music concerts (item 8)

| Null Hypothesis | Test | Sig. | Decision |
|---|---|-------|----------------------------|
| The distribution of ITEM 36 is the same across categories of ITEM 7 | Independent Samples Kruskal-Wallis Test | 0,081 | Retain the null hypothesis |
| The distribution of ITEM 36 is the same across categories of ITEM 8 | Independent Samples Kruskal-Wallis Test | 0,501 | Retain the null hypothesis |

In the methodology part, the differences between the age groups of 18-24 and 25-34 were distinguished in the sample, corresponding to generations Y and Z. Because of the differences that these groups present in their attitude towards technology, a Mann-Whitney U-test has been executed to see the possible levels of agreement towards using mobile apps during live classical music concerts with a significance level of $\alpha = 0.05$. Table 10 shows how the Mann-Whitney U-test proved that significant differences were not found between the distribution of the different age groups in all the items related to the use of mobile apps.

Table 10. Results Mann-Whitney U-test for the distribution of the items about mobile apps between the two age groups

| Null Hypothesis | Test | Sig. | Decision |
|---|---|-------|----------------------------|
| The distribution of ITEM 28 is the same across categories of ITEM 1 | Independent Samples Mann-Whitney U Test | 0,266 | Retain the null hypothesis |
| The distribution of ITEM 29 is the same across categories of ITEM 1 | Independent Samples Mann-Whitney U Test | 0,128 | Retain the null hypothesis |
| The distribution of ITEM 30 is the same across categories of ITEM 1 | Independent Samples Mann-Whitney U Test | 0,365 | Retain the null hypothesis |
| The distribution of ITEM 31 is the same across categories of ITEM 1 | Independent Samples Mann-Whitney U Test | 0,237 | Retain the null hypothesis |
| The distribution of ITEM 32 is the same across categories of ITEM 1 | Independent Samples Mann-Whitney U Test | 0,739 | Retain the null hypothesis |
| The distribution of ITEM 33 is the same across categories of ITEM 1 | Independent Samples Mann-Whitney U Test | 0,755 | Retain the null hypothesis |
| The distribution of ITEM 34 is the same across categories of ITEM 1 | Independent Samples Mann-Whitney U Test | 0,608 | Retain the null hypothesis |
| The distribution of ITEM 35 is the same across categories of ITEM 1 | Independent Samples Mann-Whitney U Test | 0,143 | Retain the null hypothesis |

The questionnaire also includes an item to study the frequency of listening to classical music, classifying the respondents in four groups. Therefore, differences in the opinion about mobile apps during live classical music concerts have been tested among these groups by the Kruskal-Wallis test. Specifically, the distribution of items from block four (related to the use of mobile apps during live classical music concerts) has been tested across the categories defined within the item 7 (frequency of listening classical music). The outcome of the Kruskal–Wallis test proved that significant differences were not found between the distribution of the different groups of the frequency of attendance, except for the item 33 (see table 11).

Table 11. Results Kruskal–Wallis test for the distribution of the items about mobile apps between the four frequency groups for listening to classical music

| Null Hypothesis | Test | Sig. | Decision |
|---|---|-------------|----------------------------|
| The distribution of ITEM 28 is the same across categories of ITEM 7 | Independent Samples Kruskal-Wallis Test | 0,844 | Retain the null hypothesis |
| The distribution of ITEM 29 is the same across categories of ITEM 7 | Independent Samples Kruskal-Wallis Test | 0,960 | Retain the null hypothesis |
| The distribution of ITEM 30 is the same across categories of ITEM 7 | Independent Samples Kruskal-Wallis Test | 0,970 | Retain the null hypothesis |
| The distribution of ITEM 31 is the same across categories of ITEM 7 | Independent Samples Kruskal-Wallis Test | 0,200 | Retain the null hypothesis |
| The distribution of ITEM 32 is the same across categories of ITEM 7 | Independent Samples Kruskal-Wallis Test | 0,675 | Retain the null hypothesis |
| The distribution of ITEM 33 is the same across categories of ITEM 7 | Independent Samples Kruskal-Wallis Test | 0,039 | Reject the null hypothesis |
| The distribution of ITEM 34 is the same across categories of ITEM 7 | Independent Samples Kruskal-Wallis Test | 0,147 | Retain the null hypothesis |
| The distribution of ITEM 35 is the same across categories of ITEM 7 | Independent Samples Kruskal-Wallis Test | 0,143 | Retain the null hypothesis |

The H1 of the research "the young individuals with a lower frequency of attendance to classical music concerts would be more willing to use mobile apps during the classical music concert" has been tested by the Kruskal–Wallis H test.

Specifically, the distribution of items from block four (related to the use of mobile apps during live classical music concerts) has been tested across the categories defined within the item 8 (frequency of attendance to live classical music concerts). The outcome of the Kruskal–Wallis test proved that significant differences were not found between the distribution of the different groups of frequency of attendance, except for the item 33 (see table 12).

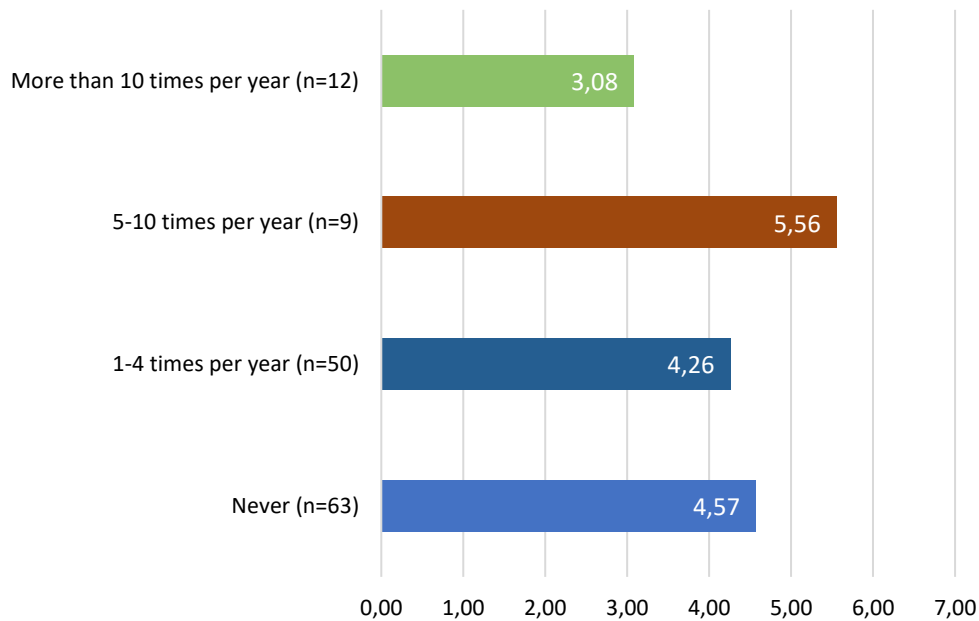
Table 12. Results Kruskal–Wallis test for the distribution of the items about mobile apps between the four frequency groups for attending live classical music concerts

| Null Hypothesis | Test | Sig. | Decision |
|---|---|-------|----------------------------|
| The distribution of ITEM 28 is the same across categories of ITEM 8 | Independent Samples Kruskal-Wallis Test | 0,313 | Retain the null hypothesis |
| The distribution of ITEM 29 is the same across categories of ITEM 8 | Independent Samples Kruskal-Wallis Test | 0,800 | Retain the null hypothesis |
| The distribution of ITEM 30 is the same across categories of ITEM 8 | Independent Samples Kruskal-Wallis Test | 0,982 | Retain the null hypothesis |
| The distribution of ITEM 31 is the same across categories of ITEM 8 | Independent Samples Kruskal-Wallis Test | 0,141 | Retain the null hypothesis |
| The distribution of ITEM 32 is the same across categories of ITEM 8 | Independent Samples Kruskal-Wallis Test | 0,332 | Retain the null hypothesis |
| The distribution of ITEM 33 is the same across categories of ITEM 8 | Independent Samples Kruskal-Wallis Test | 0,013 | Reject the null hypothesis |
| The distribution of ITEM 34 is the same across categories of ITEM 8 | Independent Samples Kruskal-Wallis Test | 0,339 | Retain the null hypothesis |
| The distribution of ITEM 35 is the same across categories of ITEM 8 | Independent Samples Kruskal-Wallis Test | 0,445 | Retain the null hypothesis |

To see whether the hypothesis 1 (H1) can be retained in the case of item 33 "I would use mobile apps that teach me how to listen to classical music", the mean values for the agreement of the frequency groups have been calculated. The willingness to use mobile apps that teach how to listen to classical music reaches a mean value of 5,56/7 in the group that attends classical music concerts between 5 and 10 times per year. This level of agreement is higher than the group that never attend classical music concerts (4,57/7) or the group that attends between 1 and 4 times per year (4,26/7).

Graphic 3 shows the mean differences presented in item 33 across the different frequency groups for attending live classical music concerts.

Graphic 3. Differences in mean values for item 33 "I would use mobile apps that teach me how to listen to classical music"



According to the outcome of the Kruskal-Wallis Test and the information that is shown in table 8 and graphic 3, we reject the hypothesis 1 of the research. Therefore, young individuals with a lower frequency of attendance to classical music concerts would be not necessarily more willing to use mobile apps during the classical music concert.

The hypothesis 2 (H2) of the research "The higher the lack of knowledge barrier (Baker, 2000) to not to attend classical music concerts, the higher the willingness to use an app during the classical music concert" has been tested with the Pearson's correlation coefficient. First, we have calculated the mean of the items (variables) 26 and 27. These items "I don't know anything about classical music" and "I don't know how to behave in the classical music concert" have been based in the literature about lack of knowledge as a barrier to not attend classical music concerts. Once that the new variable "lack of knowledge" was calculated, the Pearson's correlation coefficient has been executed to each of the items related to the use of mobile apps (items 28-35). No significant correlations between lack of knowledge and the willingness for using mobile apps during live classical music were found.

The exception is item 33 "I would use mobile apps that teach me how to listen to classical music", whose Pearson correlation coefficient was significant at the $\alpha=0,01$ level (see table 13).

Table 13. Pearson's Correlation between the variable "lack of knowledge" and the items related to the use of mobile apps during the live classical music concert

| | | ITEM 28 | ITEM 29 | ITEM 30 | ITEM 31 | ITEM 32 | ITEM 33 | ITEM 34 | ITEM 35 |
|--------------------------|---------------------|---------|---------|---------|---------|---------|--------------|---------|---------|
| | Pearson Correlation | 0,117 | -0,035 | 0,120 | 0,001 | 0,070 | ,285* | 0,018 | 0,104 |
| LACK OF KNOWLEDGE | Sig. (2-tailed) | 0,177 | 0,687 | 0,167 | 0,993 | 0,424 | 0,001 | 0,839 | 0,232 |
| | N | 134 | 134 | 134 | 134 | 134 | 134 | 134 | 134 |

* Correlation is significant at the 0.01 level (2-tailed)

According to the outcome of the Pearson's correlation coefficient test and the information shown in table 10, we reject the hypothesis 2 (H2) of the research "The higher the lack of knowledge barrier to not to attend classical music concerts, the higher the willingness to use an app during the classical music concert" except for the item 33. Therefore, the higher the lack of knowledge barrier to not to attend classical music concerts, the higher the willingness to use an app during the classical music concert that teaches the attendant how to listen to classical music, but not with other purposes expressed in the questionnaire.

The hypothesis 3 (H3) of the research "Individuals that are having a greater willingness to learn about classical music (Baker, 2000; Roose, 2008, Hill et al., 2017) would have a greater willingness to use mobile apps during the classical music concert" has been tested with the Pearson's correlation coefficient test. In this case, the Pearson correlation coefficient has been calculated considering item 20 "I want to learn more about classical music" and each of the items from the questionnaire related to the use of mobile apps (items 28-35). No significant correlations between item 20 "I want to learn more about classical music" and the willingness for using mobile apps during live classical music were found.

The exceptions are item 33 "I would use mobile apps that teach me how to listen to classical music" and item 34 "Mobile apps to educate new listeners can be a good introductory experience to non-familiar audiences to classical music concerts". They both presented a Pearson correlation coefficient which was significant at the $\alpha=0,01$ level (see table 14).

Table 14. Pearson's Correlation between item 20 "I want to learn more about classical music", and the items related to the use of mobile apps during the live classical music concert

| | | ITEM 28 | ITEM 29 | ITEM 30 | ITEM 31 | ITEM 32 | ITEM 33 | ITEM 34 | ITEM 35 |
|---|---------------------|---------|---------|---------|---------|---------|--------------|--------------|---------|
| "I want to learn more about classical music" | Pearson Correlation | 0,009 | 0,008 | 0,040 | -0,144 | 0,157 | ,223* | ,326* | -0,108 |
| | Sig. (2-tailed) | 0,914 | 0,929 | 0,650 | 0,097 | 0,070 | 0,010 | 0,000 | 0,216 |
| | N | 134 | 134 | 134 | 134 | 134 | 134 | 134 | 134 |

* Correlation is significant at the 0.01 level (2-tailed)

According to the outcome of the Pearson's correlation coefficient test and the information shown in table 10, we reject the hypothesis 3 (H3) "Individuals that are having a greater willingness to learn about classical music would have a greater willingness to use mobile apps during the classical music concert" except for the item 33 and 34 of the research. Therefore, we have the two following statements: (1) the higher the willingness to learn about classical music, the higher the willingness to use an app during the classical music concert that teaches the attendant how to listen to classical music and (2) the higher the willingness to learn about classical music, the higher is the agreement towards the fact that mobile apps to educate new listeners can be a good introductory experience to non-familiar audiences to classical music concerts.

Summary of the quantitative results

As it was explained in the methodology, the quantitative part of the research aimed to respond the research subquestions 1 and 2: *which enough reasons for audiences aged 18-34 to not attend classical music concerts can be discovered?* and *what are the characteristics of potential users aged 18-34 of mobile apps focused on live classical music?* In this section, the summary of the quantitative results, we will give responses to these two questions.

As a response to *which enough reasons for audiences aged 18-34 to not attend classical music concerts can be discovered?*, it has been tested that the availability of substitutes (Baker, 2000) is the main barrier for all the groups of the frequency of attendance. The exception is for the ones that attend classical music concerts more than 10 times per year. However, when the other groups attend, experiencing something new and different from other entertainment and cultural activities is one of the main motivations to do so (5,33 on a scale of 1–7 where 1 = strongly disagree; 7 = strongly agree).

Not knowing anything about classical music can be considered a meaningful barrier to the ones that never attend classical music concerts (4,08/7). Also, a social barrier (Baker, 2000) can be identified to attend live classical music concerts, since the ones that never attend rely on the statement "I have no one to go with" (4,35/7) and the main motivation within the sample to attend live classical music concerts has been "someone invited me to come" (5,73/7).

Some other barriers presented in the literature are not so relevant for the sample that participated in the research. The barriers related to the nature of the artform (Baker, 2000) "I do not know how to interpret the meaning of classical music" and "I am afraid it will take long", had mean values of 2,96 and 3,23 based on a scale of 1–7 (1 = strongly disagree; 7 = strongly agree). In the case of "I do not know how to behave in the classical music concerts" presented a mean value of 2,34/7, and even in the case of the ones that never attend live classical music concerts, this barrier was not so much relevant for them (2,90/7). The statement "I do not feel connected to the rest of the audience" was not so relevant as well, registering a mean value of (3,19/7).

On the other hand, a response to the subquestion *what are the characteristics of potential users aged 18-34 of mobile apps focused on live classical music?* is difficult to be given with the results gotten from the questionnaire. From the questionnaire, it has been shown that these apps would be especially interesting for the case of introducing the ones that are not familiar with classical music yet. However, we should consider the barriers that prevent people to go to classical music concerts, and an app to give information might not be enough incentive to attract these individuals to the concert hall.

Also, outcomes from the Kruskal-Wallis test, the Mann-Whitney U-test, and the Pearson's Correlation test do not show enough a common pattern in the potential users for mobile apps in terms of age, frequency of attendance and barriers or motives to attend the classical music concerts. With these results, it could only be said that the higher the willingness to learn about classical music, the higher the willingness to use an app during the classical music concert that teaches the attendant how to listen to classical music and (2) the higher the willingness to learn about classical music, the higher is the agreement towards the fact that mobile apps to educate new listeners can be a good introductory experience to non-familiar audiences to classical music concerts and (3) the higher the lack of knowledge barrier to not to attend classical music concerts, the higher the willingness to use an app during the classical music concert that teaches the attendant how to listen to classical music. Therefore, to reply to this research subquestion, further market research should be done, to overcome the current limitations of this research.

5.2. Qualitative results

The qualitative results aim to give a response to the research subquestions 3 and 4, besides complementing the findings for the research subquestions 1 and 2 that were first studied by quantitative methods. Following the academic literature about audience development in classical music, young audiences, and engagement in the public using mobile apps, it is expected to gather good practices for attracting young audiences by price discrimination, different settings for the classical music concerts, or the given importance to education, among others. However, unknown until now is the way that mobile apps can engage with new audiences, both the apps being used inside and outside the concert hall.

Mission

Academic literature about audience development practices suggests that a more critical approach should be given to audience development strategies, since authenticity and staying true to the music the organization is relevant (Sigurjonsson, 2010; Abbing, 2019). Therefore, the first thematic block of questions for the qualitative results has been based on understanding the identity, values, and mission of the orchestras/ensemble, their context, and the role that they aim to have in the community where they belong to.

Innovation is something that defines all the orchestras/ensembles that participated in the interviews. Some parts of the interviews related to innovation, have been coded under the theme of "mission" and others under the theme "young audiences". In what regards the mission of the orchestras/ensemble, two out of four participants related innovation with the mission of being pioneers in what they do:

R1: "I think we are in the circumstance that our purpose is really focused on finding these new paths and these new ways to do what we do"

R2: "What we do I think is based on four values: to be fearless, pioneering, open, and global"

The participants also talked about innovation to adapt to the latest changes. In the 21st century, it could be said that socio-economic advancements like digitalization, globalization, or the focus on experience have had an impact on participation in the arts and the classical music concerts (van Eijck & Knulst, 2005; Abbing, 2019; MCICM, 2019). High-quality videos on YouTube and other online video platforms can make classical music accessible from home. In this line, three out of four respondents mentioned the importance of being available in music streaming and video streaming platforms.

R2: "Our mission is quite big. It is that we create thrilling experiences in music, live and digitally, to the widest possible audiences. So, it is partly about making sure our music is available online and in digital platforms"

However, the fact of being innovative does not exclude the heritage values in the case of all the classical music groups that participated in the interview. Therefore, they aim to be considered something between innovation and heritage. Innovative trends such as the presence in YouTube and other platforms complement to take care of the musical heritage.

R3: "We are, in fact, the second or the third European orchestra who invests the most on YouTube and with one the highest number of viewers. And this is, obviously, compatible with taking care of the musical heritage"³

Three out of four respondents, that happened to be the interviewed linked to orchestras, recalled the importance of quality in what they do.

³ *"De hecho, somos probablemente la segunda o tercera orquesta europea con más inversión en YouTube y con más visitas y eso es obviamente compatible con cuidar el patrimonio musical"*

This quality was hinted using different statements such as "give thrilling performances" (R2), "excellence" (R3), "international" (R3 and R4), or "global" (R2). In two out of four interviews, the participants mentioned how meeting the requirements for getting funding from the government and other public bodies can make them adopt the program to attract newer audiences to their concerts. It is even hinted that these requirements sometimes get to lower the quality of what they do. This relates to a user-oriented setting for classical music (Abbing, 2019).

R2: "I think the Arts Council in the UK has just released a new structure and that is going to drastically change the way they will fund the organization in the future. They are giving us 20% of our net income, and for us to meet those criteria to get the funding we are going to need to move towards innovation and so on"

R4: "Eventually, we are just aiming for being a symphonic orchestra and do what we want to do, which is playing symphonic music. But due to all the funding, and not having money, and the governments asking us to reach new audiences, not only audiences that are intrinsically motivated (...) we have to lower our borders"

Despite this, being accessible is something that all the participants agree on have on their mission. During the interviews, the participants mentioned how important it is to make an impact on the communities they are based on and make their music accessible to anybody that wants to engage with it "*trying to get symphonic music to as many people as possible*" (R4). Besides that, three out of four respondents gave examples about concerts or projects focused on bringing the music with groups in risk of social exclusion - such as refugees (R1), LGTBI communities, prisons or care homes (R2), or kids at risk of poverty and social isolation with a youth orchestra project based on "El Sistema" of Venezuelan orchestras (R3). This relates to those definitions of audience development focused on the importance that arts and culture have on society, in a way that audience development of cultural organizations help to create community building (Olmos & Santillán-Güemes, 2000) or communities committed to the arts and culture (Conolly & Cady, 2001).

R2: "We have quite a lot of older people, and the audiences are the majority white, especially in London. And we are using people's money, that is public money basically to only serve a small percentage of the public. To be fair, we have to widen it now and make sure that classical music is something that everyone could potentially come to if they wanted to. That kind of social justice element".

All this is made under a common objective mentioned by three out of four respondents: staying true to themselves, the art form, and the values of the organization.

R1: "You always should make things that you feel connected to and that you love doing (...). We are a string quartet that does some new, cool stuff, and that does some more traditional stuff. We are not really changing our product, who we are to attract a specific audience"

Young audiences

This part of the qualitative results aims to gather some good practices for young audiences developed by the classical music organizations that participated in the interviews. These alternatives have been coded under the theme "young audiences". Practices such as education, mixed artforms, different settings, students, social needs, and media have been coded under this theme. Besides these good practices, the participants also mentioned some of the barriers of attendance that young people present to not attend live classical music concerts. They have been also coded because of their relevance for the research subquestion 1. One of the barriers for young people that were mentioned in the interviews was the formality that classical music concerts present, at least inside the concert hall. "I think the concert hall just has something stiff or fancy for them (young audiences) and they do not dare to go" (R1). In this line, increasing informality in classical music concerts has been suggested to attract younger audiences to the hall (Baker, 2000; Kolb, 2001; Dobson, 2010; Abbing, 2019). However, the barriers that were the most suggested were unrelated to the academic literature: being these barriers time, money, and mobility.

R2: "This group of young people might have, first, probably accessibility issues, travel, and mobility. Some of them cannot make it to the concert hall. I think the cost is always going to be a barrier"

R3: "We must be careful with the discourse we have. The discourse that there is no young public (...) we have it now, we had it 20 years ago and it existed 40 years ago (...) The type of public we have is going to be built between the ages of 20 and 30, but it really becomes a fixed audience after 45 or 50 (...)"

When you are 30 or 35 years old, and you are a father or a mother, you are working, you come home at 8pm, you have a child or two, you do not sleep... The last thing you think about is going to a classical music concert”⁴

One of the biggest investments that the orchestras/ensembles are doing is related to education. In this case, all the respondents mentioned that they give special concerts for kids and teenagers. These concerts come in the form of cooperation with primary and secondary schools (R2, R3, and R4) or children's or family concerts (R1 and R2). Some of the participants mentioned some of the differences that these concerts present compared to the normal concerts "having a story" or "making sure they have a nice memory to take home". In fact, education takes an essential role when developing audiences in classical music, since music education and consuming arts during the early life will influence the role that classical music concerts will take in the life of the audience like adults, being the age a very important issue to take into account when developing new audiences for the classical music concerts (Kolb, 2001). One of the participants underlined the importance of youth orchestras to create aficionados among the young public and to give visibility to the orchestras in the city. Research has shown that adults who were exposed to arts as children are three to four times likely to engage with them as adults. Therefore, investing in younger audiences and encourage them to attend and participate in performing arts in childhood turns out to be a strong predictor for participation in the arts in the future (Hill et al., 2017).

R3: "What is needed is to create aficionados (...). You were telling me that you played in a young orchestra. So, you are an example and a possible subscriber for the concert season in the future. I think that is the key. (...) I am convinced that people like you, people of your generation, will be the audience of the future”⁵

The participants commented that young audiences (and non-attendants in general) are normally attracted to live classical music concerts when it is mixed with other artforms. Some of the genres mentioned were music theater (R1), cabaret, jazz and spoken word (R2), rock and hip-hop (R3), and musical and movie (R4).

⁴ *“Debemos tener cuidado con el discurso que siempre tenemos. El discurso de que no hay público joven (...) lo tenemos ahora, lo tuvimos hace 20 años, existía hace 40 (...) Cuando tienes 30 o 35 años, y eres padre o madre, estás trabajando, llegas a casa a las ocho de la tarde, tienes un niño o dos, no duermes... Lo último que te planteas es ir a un concierto de música clásica”*

⁵ *“Lo que hace falta es crear muchos aficionados (...). Me estabas contando que tocabas en una joven orquesta. Pues tu eres un ejemplo de una posible abonada en el futuro. Yo creo que esa es la clave (...) Estoy convencido que gente como tú, gente de tu generación dentro de unos años seréis el público del futuro”*

In fact, the academic literature suggests that younger people and potential audiences, are more interested in modern music, so programming more fresh works may help bring in these prospective concertgoers (Rizkallah, 2009). Also, Pitts (2016) argued that the traditional classical music concert yields little connection to other genres familiar to young people.

R4: "We have a series called "Musical meets Opera" where we combine opera music with musical music (...). What we are aiming for when we started was trying to get the musical people in our house, attracting them with big musical stars, and feed them a little bit with opera and classical symphonic music (...) And they were like "wow, I did not know I like this opera music so much, I loved it!". And the other way it worked as well (...) In the first concert, we did 80% of the music was musical and the rest opera. But the last times we had more opera and classical music than musical music. And everybody loved it as well!"

Different settings were also mentioned as a way of attracting young audiences. Some of the examples the participants gave were playing in festivals, clubs or student rooms (R1), shopping centers, and VR installations (R2), open spaces such as the city main square (R3), or the Core Classics series (R4) which aims to give to an experience closer to a night out that familiarizes new audiences with live classical music including an introductory talk and drinks (Rotterdam Philharmonic Orchestra, n.d.). According to Pitts (2016), the traditional setting for classical music concerts barely follows the standards for a good night out for this group. Besides that, young audiences will feel more motivated to go to classical music concerts if they are provided with a more visually stimulating setting (Crawford et al., 2012).

R1: "We curate a festival, September Me, and it attracts young audiences as well. For instance, a few years ago we did an all-night concert where we played a piece by an American composer which lasts five and a half hours without a break. People lied down on beds around us and, on the ceiling, there were projections made by a video collective"

Different strategies have been run to attract a specific group of university students. Two participants mentioned the importance of different settings adapted to university students, like a students' house festival where musicians go to students' rooms, and a program aimed for college students that stopped happening. The other two of the four participants mentioned established partnerships with conservatories and universities from the city. Thus, these students were provided with invitations or discounted tickets to attend live classical music concerts.

In the case of one of the participants, this partnership was established together with the rest of the orchestras in the city and the tickets were offered via the Student Pulse App. This app has been mentioned in the academic literature as a successful way to engage young audiences and selling tickets to university students (Gosling et al., 2016). In the same line, the participants mentioned price discrimination to attract students to the concert hall, and young people in general. According to Towse (2014), groups in the audience are having different willingness to pay. Therefore, concert halls have reduced prices for children, students, seniors, and other categories.

R2: "We have ticket schemes that look to attract students, so people in their late teens and early twenties, as a London wide app called Student Pulse, that offers people cheap tickets. Besides that, we have a secret ticket scheme called Ringside seats which offers seats in the choir toles at a good price, I think between 5 and 12 pounds."

All the respondents emphasized the high social needs that younger audiences might have compared with adults or more loyal audiences. This idea is supported by Michael (2017), who found out that younger audiences are interested in entertainment in any kind of form, therefore valuing social interaction over knowing about the music in the classical music concerts. Actually, some of the subcodes found in the transcription about social needs align with the ones classified mentioned in Baker (2000): 1) interaction/sharing/contact, 2) communion with players/audience, 3) rituals: 'dressing up', display (and informality, comfort); 4) sense of humanity: 'live feel', 5) entertainment: 'a good night out'. Contact with others was suggested as important for the young audience, something that one of the participants linked to different settings as well.

R2: "Some other orchestras and ensembles do things in car parks and totally different places like abandoned warehouses (...), I think it might be the case that this kind of concerts does bring a younger audience (...) In London, those would be like the "hipster" audience (...) the ones that want to go out for an event and socialize with their friends rather than to experience the music".

Three of the respondents emphasized the importance of word-to-mouth for attracting young people to the concert hall. In fact, the quantitative results of this study show that the statement "someone invited me to come" was the highest motivation of the sample to attend a classical music concert.

This can happen when young people encourage their friends to come along (R3) or by ambassadors (R1 and R2), who also give feedback to the musicians about what they like. The ambassadors' system also aligns with the communion with players/audience, in which two participants also hinted how having young musicians on stage can work for attracting young audiences.

R3: "I think it is important to feel identified. Young people want to feel identified with young people. So also, the younger people there are in the Spanish orchestras, the younger people will be attracted" ⁶

Related to the display and informality, comfort, the example of the Core Classics series is suggested by one of the participants, where the audience is younger. However, the responder (R4) emphasizes that even if the setting is more informal and social, not a lot of extras should be added to these concerts, just a few to make it easier for them to have a first experience with classical music. Otherwise, *"they would not taste the real thing"*. One of the participants suggested the possibility of arranging packs that include dinner or drinks plus the ticket to the live classical music concert. Then it can help young audiences to look at the classical music concert as a way of being entertained or having a good night out.

R3: "Perhaps work on that, if a concert hall has a bar or restaurant nearby is a good idea to try to create relationships with them. Go to a concert and then go out for dinner or a drink ... make packs, that kind of thing" ⁷

Finally, all the participants emphasized the importance of marketing and media when attracting young audiences. Academic literature has set the attention of the media as one of the possible extrinsic motivations for attendance to live classical music concerts (Roose, 2008) and one of the audiences development practices that more engages with for younger audiences, which is using social media (Mitchell, 2019). R1 mentioned flyers, photos in social media, YouTube videos, and an online marketing strategy, that besides social media includes Google Ads. Besides social media, R2 mentioned steering groups consulting on programming those targeted to young audiences and the impact that re-branding their site had. This fresh look "lot cleaner, a lot simpler and with more structure", attempts to bring them to the 21st century.

⁶ *"Creo que es importante sentirte identificado. La gente joven se quiere sentir identificada con gente joven. Entonces también cuanta más gente joven haya en las orquestas españolas, más gente joven se atraerá"*

⁷ *"Quizás trabajar eso, cualquier auditorio que tenga un bar o restaurante cercano tratar de crear relaciones. Ir a un concierto y después salir a cenar a tomar una copa... hacer packs, ese tipo de cosas"*

R3 mentioned press campaigns for subscribers and engage the public on social media, trying to find a balance between the old and new audiences. Also, he mentioned again the importance of being on YouTube. (R4) mentioned social media presence and a strategy to get target groups focused on planning and programming.

Mobile apps

The last theme from the content analysis is the use of mobile apps during the live classical music concert. In this case, the codes of viability, problems and objections, barriers for adoption, alternatives, introductory experience and engaging audiences via apps have been identified in the transcriptions. The academic literature suggests that the lack of information about classical music or the nature of the artform might present barriers for attending classical music concerts for non-attenders (Baker, 2000). Therefore, mobile apps are starting to be used to give information and bridge this gap, especially among younger audiences.

Viability

One of the aims of the interviews was to explore the viability of mobile apps on live classical music concerts. In the current study, only one of the participants (R4) said that apps are being used during live classical music concerts in the orchestra where he is working for. In this case, the aim of these mobile apps is "*to make the listening experience richer*", while it is easier for new audiences to have the first contact with classical music concerts. In this context, mobile apps as a concert companion function have been used in more informal settings, such as the Core Classics series or the Grachtenfestival. The participant commented that they offered the app once during a different series to Core Classics, and then, the use of the app was very low.

R4: "We opted for trying the app with a different series to Core Classics". The percentage of the users was around 6% of the audience... so that was really low. However, in Core Classics, it is much higher, because during my introduction I can also announce it and give time to people to download the app. And also, the average age of the audience of the Core Classics series is much younger, and they are more used to use apps"

Two out of the four respondents commented on the unviability that these apps might have. Whereas R3 believed that these mobile apps are more a trend than a viable path to attract young audiences and that having apps during the concert is not something essential, he agreed

with the fact that "young people are eager to try things, to experience more, to live new experiences. And there, the institutions must take it into account"⁸. Also, R2 commented that they tried concert companions in the past "but at this moment the audiences are not the kind of people that would have that on their phones". He agreed on the fact that download an app also takes some time and effort and that some options on linking the concert companion app to the e-ticket can provide an easy route for its download. Two out of the four participants commented that mobile apps might help audiences to deep in the experience. Some of the features that apps during the classical music concert should have is a dark or black screen, since "seeing all the lights of the telephone in the hall is not a good thing for the musicians and the audience" (R1). However, this same respondent also called attention to the fact that this app does not suppose a "unique selling point" that might attract people to live classical music concerts. Also, they highlighted the importance of communicating and announce that there is going to be an app working during the concert, so audiences are aware of it.

R4: "When we tried the app in an ordinary program, some months ago (...) nobody from the audience wrote a complaint about the use of the app (...). The one we use actually has a black screen with a little bit of white text, but it is very discrete when people have it in their hands (...). It is true that we really communicated the audiences about the existence of the app. There were screens everywhere informing about the app and telling that the app was working during the concert. It is just communication and making sure that everybody knows about it and explain why you do it and the value of it"

Problems and objections

The participants also mentioned some problems and objections that mobile apps during the live classical music concert might have. In the case of the app that one of the respondents knew about, the text was very theoretical at the beginning, and only afterward they changed its approach. Besides that, he mentioned the difficulty of making a text that is suitable for all the different groups of the audience. This goes along with the problems that another participant observed about these mobile apps, feeling that having concert companions apps might make the listening experience very theoretical, instead of just feeling the music and letting the music surprise the audience.

⁸ (...) "la gente joven está ansiosa por conocer cosas nuevas, por experimentar más, de vivir nuevas experiencias. Y ahí sí que las instituciones debemos tenerlo en cuenta".

R4: "(...) at the beginning, the app was showing texts like "now you are hearing the melody for the fourth time, just a little bit different" (...) and maybe you have not heard it the second time (...). That can make the audiences unsure, and it is really disturbing. So, what we tried was changing the text in a way that we were only talking about the experience. What you hear now, or what is the music about now, or what is the composer trying to say with it at this moment"

Three out of the four participants agreed on the fact that mobile phones are a distraction for the audiences and musicians. In fact, the quantitative results showed that the item "I am afraid of missing what is happening on stage if I am looking at my phone" registered the greatest level of agreement within the sample (5.62/7). Therefore, the use of mobile apps can threaten the connection between the musician and the public. Furthermore, one of the respondents gave a real example in which the mobile phone provoked this disconnection between an artist and a member of the audience even if it was not a pure live classical music concert, but a collaboration with cabaret in a more informal setting.

R1: "It is not very nice to give a concert where everyone is just staring at their phone the whole time"

R2: "During one of the performances a lady was texting, and the drag queen stopped the music and called her out saying "how dare to text during my performance". I thought it was very interesting because the whole thing was about making people welcomed and able to engage with the music (...). In that setting you could have shouted, you could have screamed or sung along... But taking away your attention was not so good... And yeah, I think that kinds of in a way link with the whole app thing. It must somehow be connected to the performance, I think, at least visually. So, you have to be able to look at the performers and to be able to have your eye-line in the same place as everyone else"

The last problem that one of the participants (R2) mentioned is that there are better alternatives to mobile apps to engage audiences, especially in what concerned the use of technology. Thus, even if the use of mobile apps might be something that can work if orchestras give them time "*when things move so quickly in terms of the augmented, mixed reality world and we have an audience that moves so slowly, we could actually create more effective things by focusing on the visual rather than the text*".

Barriers for adoption

Two out of the four participants (R1 and R2) mentioned that even if they would be willing to allow the use of mobile apps during live classical music with the concert companions features, there are barriers for its adoption. Both mentioned the fear of trying new things in the world of classical music, both from the musicians' side but also by managers from orchestras and other classical music organizations. Also, one of the respondents stands out how in the case of the orchestras, the high dependency of funding is a barrier when working in new projects, in which mobile apps can be included. Besides that, developing a mobile app can be quite costly for the orchestra, therefore having other priorities. R2 mentioned that even if these apps are being developed by external partners, there is a conflict of trust at the time of taking up these kinds of apps by orchestras that are part of the charity sector.

R2: "Some external partners are developing these apps, like this OnStage app people. But this kind of disconnects, I think, between profitable business in the classical music sector and the big ensembles from the charity sector. There is potentially a lack of trust between the orchestra and the organization (...). It would be someone like the chief exec the one that should make a decision about this. Unless those people can network with the chief exec... It is really sad, but I think it is going to take a very long time".

Mobile apps as an introductory experience

Despite some of the problems that mobile apps might present during the classical music concert, the participants agreed on the fact that mobile apps can be a good introductory experience for new attendants curious about classical music. This might work especially in more informal settings for the live classical music concerts, such as Core Classics, as R4 mentioned, especially because *"mobile apps are not a unique selling point"*. According to academic literature even if apps during the concert might be rejected by frequent audiences, "under a situation in which novel audiences would be targeted in a dedicated non-conventional concert setting, subjects thought that such on-site solutions, also involving tablets, could be more acceptable" (Liam et al., 2013, p.2). Also, the quantitative results of this research have shown a great level of agreement on the statement "Mobile apps to educate new listeners can be a good introductory experience to non-familiar audiences to classical music concerts" (5,39 / 7).

R3: *"In that (mobile apps as first experiences), I think it can be a good option. That first step that breaks the barrier of that initial fear that people may have due to lack of knowledge. Of course, those applications can help a lot. And there, too, we have to work so that people lose their fear"*⁹

Substitutes and alternatives to mobile apps

However, three out of the four participants were able to mention some substitutes and alternatives better than mobile apps during the classical music concert whose goals giving information and making the listening experience richer. These participants agreed on the fact that giving information to the audience is always something good and liked. The academic literature has suggested one of the barriers for non-attendants is not knowing enough about classical music, and not being presented information on what they are going to listen to (Dobson, 2010).

Even though the participants agreed on the fact that mobile apps could help the audience to get information about the music, they referred more to have the director, or the musicians, giving information about the music, or the use of programs or didactic guides during the concert. One of the participants claimed that this is something that the audience always likes *"because it makes the distance between the musicians and the audience a lot smaller if they hear the musician's voice"* (R1). Also, one of the participants suggested that, instead of apps to give information with features that a concert companion app might have, more options can be explored in terms of mixed and augmented realities using apps or other devices.

R3: *"We do not have apps. But, for instance, we do have didactic guides. We do everything in another way. Everything that involves explaining to the audience what we do is always good. And that can be done either with an app, with a piece of paper, with a book, or with a conductor who speaks to the public. (...) Because what is better? An app or a conductor that at the beginning of the concert tells you all what that app is supposed to tell you? Or a musician ... that would be the ideal"*¹⁰

⁹ *"En eso creo que puede ser una buena opción. Es decir, ese primer paso, romper la barrera o ese miedo inicial que puede tener la gente por desconocimiento. Claro que esas aplicaciones pueden ayudar mucho. Y ahí también hay que trabajar en que la gente pierda el miedo"*

¹⁰ *"En ese sentido no tenemos aplicaciones. Si que tenemos guías didácticas, lo hacemos todo en otra vía. Todo lo que sea explicar al público lo que hacemos siempre es bueno. Y eso se puede hacer ya sea con una aplicación, con un trozo de papel, con un libro o con un director que habla al público. (...) Porque, ¿que es mejor? ¿una aplicación o un director de que orquesta que al principio del concierto te dice lo que esa aplicación te va a decir? O un musico.... eso sería lo ideal"*

R2: "What we are thinking more about is, instead of concert companions, are things like mixed and augmented realities. So, we do a lot with virtual reality and we have got lots of programs at the moment, which are not involved in but are cool and quite exciting about how you can use either phones or googles or whatever to kind of increase the artistic and aesthetic experience of the music. By either having things like characters on the stage or highlighting which musicians are playing"

Mobile apps to engage young audiences

The last part of the conversations moved forward on how mobile apps can engage young audiences in classical music. The four participants agreed on the importance that mobile apps can have not so much for enhancing the experience in the concert hall, but for hooking young audiences in classical music concerts. Some of the options given were own mobile apps about the orchestra or ensemble, in which two of the respondents are working or worked on during the past. The academic literature gathers success practices related to the way that apps orchestras/ensembles can be developed. For instance, the City of Birmingham Symphony Orchestra developed a "first-timers guide" online that appealed to create an emotional engagement with potential audiences, including questions such as "how do I know if I'll enjoy it?", Spotify links, and recommendations of pieces according to different grades of emotion and musical challenge (Pitts, 2016).

(R3): "Mobile apps can have a much greater return on investment than marketing campaigns. Once you have the app, it can allow you to link to your target audience in another way" ¹¹

Besides YouTube and other streaming platforms, which the academic literature has proven to engage young audiences to attend classical music concerts (Crawford et al., 2014b), ways in which information can be given beforehand were mentioned. Specifically, two out of the four respondents mentioned concert recommendations as features from apps that can engage young audiences to attend live classical music concerts.

R2: "We use Songkick, which in the UK is a good way to find out when artists play. That does give you a brief explanation of the program and artists that are performing"

¹¹ "Invertir en aplicaciones móviles puede tener un retorno mucho mayor que campañas de marketing, porque la aplicación, una vez que ya la tienes, te pueden permitir vincularte con tu público objetivo de otra manera"

R1: "I feel like apps should not be used during the concert, but already before. Maybe an app where you get concert recommendations and you can already learn something about the concert, or what it is going to happen. And then, if you find it interesting and you are triggered by it, you go to the concert, and even at the concert you get some extra information"

One of the participants suggested that mobile apps can be used to build communities. The examples he gives about how mobile apps can do it sort of hinted the concept of gamification, which has been defined as "the use of game design elements in a nongame context" (Brigham, 2015, p.471). Gamification has been, in fact, expected to change the way that organizations manage, market, and teach individuals, specially from the generation Y and Z due to their exposure of smartphones (Brigham, 2015):

R4: "One of our strategies for getting more youngsters in the concert hall is trying to build communities. And maybe an app can help us as well to create communities, of course. Like for instance, offering smaller prizes, offering ways to give them free tickets... in this app there can be incentives to come concerts"

Finally, two of the four participants mentioned using mobile apps to engage young audiences offering them discounted tickets. One of the participants mentioned how the orchestra works with the Student Pulse app in their ticket scheme, which the academic literature has researched on. This app has been designed to engage and sell discounted tickets to students and it is used by ten London orchestras (Gosling et al., 2016). Another suggestion for an app that offers discounted tickets was inspired in the app *TheFork*, famous in the catering sector.

R3: "TheFork is a very simple app that has been a success just by giving discounts. Maybe we should create an app based on this model called ... I do not know, "The Tempo" or "The Score", that offers discounts on live classical music. And since young people have to save money, they buy tickets through that app we give them a 20% discount. Maybe that's the direction we need to move" ¹²

¹² " El Tenedor es una aplicación muy sencilla que solo por dar unos descuentos ha arrasado. A lo mejor tendríamos que crear una especie de El Tenedor que se llame... no sé, El Compás o La Partitura que ofrezca descuentos en espectáculos de música clásica. Y como la gente joven tiene que ahora pasta, compran los tickets por esa aplicación donde te hacen un descuento del 20%. A lo mejor es por ahí por donde hay que tirar"

Summary of the quantitative results

As it was mentioned in the methodology, the qualitative part of the research aimed to respond to the research subquestions 3 and 4: *how can mobile apps on classical music concerts be integrated into the programming of orchestras and ensembles?* and *what other alternatives to mobile apps are being implemented to attract young audiences to live classical music concerts?* As a summary of the qualitative results, we will give responses to these two questions.

The research subquestion 3 *how can mobile apps on classical music concerts be integrated into the programming of orchestras and ensembles?* is mainly related to findings under the code viability. The findings show how the use of mobile apps during live classical music concerts is more useful in more informal settings, which are more likely to satisfy the standards of young people for a good night out (Pitts, 2016) and therefore, are more attractive to younger audiences. Some of the suggested settings are concerts like the Core Classic Series or open-air festivals. In formal settings the use of mobile apps can be rejected, but "under a situation in which novel audiences would be targeted in a dedicated non-conventional concert setting, subjects thought that such on-site solutions, also involving tablets, could be more acceptable" (Liem et al., 2013, p.2). Therefore, informal settings would make the audience feel less self-conscious about using mobile apps. Also, the fact that the audience is younger, implies that the attendants to these concerts would be more familiar with the use of mobile apps. However, these apps should be well announced, and they should include features as dark screens and texts that adequate more to the experience rather than give a great amount of theoretical information.

The response of the research subquestion 4 *what other alternatives to mobile apps are being implemented to attract young audiences to live classical music concerts?* appear in the code of substitutes and the theme of young audiences. The findings show how changing the setting of live classical music concerts can attract young audiences. However, orchestras and ensembles should implement these strategies always under the frame of their values and the artform. Therefore, some of the suggestions were open-air concerts, informal concerts that assemble to a night out, mixed genres, and the use of technology in the concert hall. The objective of these different settings serves as an introduction to live classical music concerts, expecting that in the future these audiences will experience live classical music concerts the way it is.

Participants have stood out the importance that education has in audience development for younger audiences. Besides schools and family concerts, youth orchestras and choirs can help to create classical music aficionados. Research has shown that adults who were exposed to arts as children are three to four times likely to engage with them as adults. Therefore, investing in younger audiences and encourage them to attend and participate in performing arts in childhood turns out to be a strong predictor for participation in the arts in the future (Hill et al., 2017). In the case of university students and people in their late teens or early twenties, price discrimination has proven to engage this group in live classical music concerts. Partnerships with universities and conservatories are another proven tool that can engage this public and in which orchestras might look to.

Finally, some of the substitutes that can replace mobile apps in the concert hall are about other ways of giving information about the music being played. This information about the music can be also given through booklets, programs, didactic guides, or the musicians or the conductor before the concert. Other types of mobile apps, not made for giving texted information during the concert, can be used as well to enrich the concert experience with mixed and augmented reality.

6. Conclusions

This research sheds light on how orchestras and ensembles are adopting or could adopt the use of mobile apps during live classical music concerts, especially delving into its viability attracting young audiences. The specific type of concert companions apps has been considered since lack of knowledge and the nature of the artform are some of the barriers for attendance to live classical music concerts mentioned in the academic literature (Baker, 2000). Therefore, the possibilities of these apps have been explored with the research question: *to what extent could the use of apps during the classical music concert could be a tool for audience development for young people between 18 and 34 years old?*

Different reasons for young audiences to not attend live classical music concerts have been discovered. Within a sample of 134 younger people aged 18-34, the most relevant barrier has been the availability of substitutes in the cultural sector. For this group, going to classical music concerts relies on the satisfaction of social needs, (Baker, 2000, Roose, 2008; Michael, 2017), and not having somebody to go along presents a relevant barrier for attendance. A common pattern of attitude towards classical music related to considering using mobile apps during the concerts has not been identified within the sample. Besides that, barriers to the use of mobile apps during live classical music concerts are shown, like being afraid of missing what is happening on stage if they are looking at their phone, or finding the use of phones inappropriate during the classical music concert. Previous research also has shown that apps that give insights about the concert might not be that popular since it is perceived that using the mobile phone during the concert would be non-respected by the rest of the audience (Crawford et al., 2012).

However, the research shows that mobile apps can be a good introductory experience for audiences that are curious about classical music but are not familiar with it yet, and its use is more accepted in concerts with a more informal setting. In informal and non-conventional concert settings, using mobile apps could be more accepted (Liem, 2013). Also, previous research has suggested informal settings to attract younger audiences to live classical music concerts (Baker, 2000; Kolb, 2001; Dobson, 2010; Abbing, 2019). When mobile apps are used, it is recommended that the given information focuses more on the listening experience rather than theoretical terms, to which new listeners are unfamiliar. In traditional settings, it has been shown that apps are used too, but only if they are well announced and communicated to not have bad feedback from the audience. Yet, apps are way less used in regular concerts.

Although mobile apps can be useful tools for the ones that want to learn more about the music or have a different experience, the study also has shown that mobile apps to give information during the concert are not something too unique that might attract younger audiences to the concert hall. When it comes to giving information, orchestras and ensembles prefer to do it through didactic guides, programs, speakers, or the musicians themselves. Lastly, the research also gathers good practices for attracting young people to the live classical music concerts. Some of the examples are about mixing other genres with classical music, programming different settings, attracting students, and the importance of education in classical music, besides giving insights about opportunities in mobile apps, streaming, technology, social media for orchestras and ensembles.

Limitations

The biggest limitation that the research presents relates to the size of the sample, both in quantitative and qualitative research. This is justified by the limitations that a master dissertation presents in terms and possible outcomes, especially with the case of mixed methods being chosen for the research. Master dissertations of this type are willing to give a representation of a phenomenon, but not a complete overview (Bryman, 2015).

- On the one hand, the sample for the quantitative analysis is composed of 134 individuals between 18 and 34 years old. Since this age group is the only requirement for participation in the research, the sample was not aimed, for instance to represent a specific geographical area. That makes it difficult to generalize about the behavior of current and potential audiences of live classical music concerts and the point of view they have about using mobile apps in classical music concerts. Besides that, the high number of Spanish people or the high amount of classical music listeners within the sample might mean having a possibly biased sample. This can be a result of using non-probabilistic snowball sampling as the sampling method of the research.
- On the other hand, the sample for qualitative research only included 4 key representatives of orchestras and ensembles from the classical music industry. The thematic analysis presented having multiple approaches as a limitation. The interviews were based on open questions and, even if this presents an advantage for the research, some of the conversations moved in a different direction from the research question at some points (Bryman, 2015).

Also, having only four interviews has presented limitations when coding the interviews, since common views were difficult to find among the respondents.

The second limitation that the research presents relies on the questionnaire. I only got to know about the use of mobile apps in this context recently, and the only mobile apps used during classical music concerts were the ones made for giving information about the music through text. Therefore, the questions about mobile apps only considered the perspective of mobile apps with features that can be found in concert companions apps. However, and especially after one of the interviews, it was only later when I got to think further on possibilities that mobile apps might have, such as augmented reality or video solutions.

The last limitation relates to the COVID-19 crisis, which started while the research was being developed. For instance, one of the items of the questionnaire related to the possibility of attending live classical music concerts in the upcoming months had to be omitted for its analysis due to the hesitation of the respondents. This crisis also supposed an extra difficulty for the development of the interviews. On top of the fact that orchestras and ensembles had to stop their normal activity, including management staff members, one of the ensembles declared to not be in a position of compromising for the interviews. Since the crisis was still going on when the results were presented, it might happen that orchestras and ensembles are having new priorities when adapting to a possible upcoming new reality for the cultural sector. Therefore, the results might not be so relevant if that happens.

Recommendations for further research

The outcome of the four interviews suggested some hinted lines for future research. The participants agreed that besides mobile apps that give information during the classical music concerts, there is way more to look on in terms of digitalization to be used by classical music organizations. Thus, the following future lines for research can be suggested: 1) the impact of investment in platforms such as YouTube in live classical music attendance, 2) mobile as during classical music concerts with an approach to mixed and augmented realities, 3) gamification to attract and engage with classical music audiences, 4) engaging audiences using own mobile apps for orchestras and ensembles, and 5) exploring platforms and mobile apps with a centralized booking system for live classical music concerts and other cultural events.

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8. Appendix

A. Questionnaire

This questionnaire has been developed by a student from the Master in Cultural Economics and Entrepreneurship at the Erasmus University Rotterdam. It aims to understand to what extent mobile apps can change the classical music concert and if that would be an acceptable tool of audience development for younger audiences.

It will take you 5 minutes to complete the questionnaire. There are no right or wrong answers. All your data will be treated anonymously, and they will not be used for any other purpose than this research.

Thank you!

How old are you?

18-24

25 – 34

> 34 (In this case, you have already finished the questionnaire)

What is your gender?

Male

Female

Prefer not to say

What is your highest degree of education?

In case you are currently studying, please select the option in which you are currently enrolled

Primary education

Secondary education

Vocational education

University degree

What is your employability?

I work full-time

I work part-time

I am a student

I am self-employed / freelancer

I am not employed

What is your nationality?

Have you received exposure to classical music when you were a kid / teenager?

e.g.: music school, conservatory, learning to play an instrument, youth orchestra, extracurricular activities, parents liking classical music...

- Yes
- No

How often do you listen to classical music at home?

- Never
- 1-4 times per month
- 5-10 times per month
- More than 10 times per month

How often do you attend classical music concerts?

- Never
- 1-4 times per year
- 5-10 times per year
- More than 10 times per year

On a scale from 0-10, how likely is that you will attend a live classical music concert during the next 3 months?

Very unlikely Very likely
0 1 2 3 4 5 6 7 8 9 10

What is the maximum price you would be willing to pay for a live classical music concert?

How often do you attend other cultural events? (e.g. music festivals, dance performances, museums, going to the cinema...)

- Never
- 1-4 times per month
- 5-10 times per month
- More than 10 times per month

Which kind of cultural expressions / genres did you participate in the last 3 months?

- | | |
|---|--|
| <input type="checkbox"/> Pop / Rock Concerts | <input type="checkbox"/> Ballet / opera |
| <input type="checkbox"/> Exhibitions in museums | <input type="checkbox"/> Classical music |
| <input type="checkbox"/> Exhibitions in art galleries | <input type="checkbox"/> Theatre play |
| <input type="checkbox"/> Musicals | <input type="checkbox"/> Music Festival |
| <input type="checkbox"/> Film | <input type="checkbox"/> Other: _____ |

Please rate the degree to which you agree or disagree with each of the following statements regarding your **motivations for (possibly) attend live classical music concerts** (1 = Strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neutral, 5 = somewhat agree, 6 = agree, 7 = strongly agree)

| | Strongly disagree (1) | Disagree (2) | Somewhat disagree (3) | Neutral (4) | Somewhat agree (5) | Agree (6) | Strongly agree (7) |
|---|--------------------------|-----------------|--------------------------|----------------|-----------------------|--------------|-----------------------|
| A specific soloist / conductor / ensemble / orchestra | | | | | | | |
| A specific music piece being played | | | | | | | |
| I follow the programming of the concert hall | | | | | | | |
| Someone invited me to come | | | | | | | |
| I saw it announced in the media | | | | | | | |
| I want to experience something new | | | | | | | |
| I want to relax | | | | | | | |
| I want to learn more about classical music | | | | | | | |

Please rate the degree to which you agree or disagree with each of the following statements regarding your motivations **for (possibly) not attend classical music concerts** (1

= Strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neutral, 5 = somewhat agree, 6 = agree, 7 = strongly agree)

| | Strongly disagree (1) | Disagree (2) | Somewhat agree (3) | Neutral (4) | Somewhat agree (5) | Agree (6) | Strongly agree (7) |
|---|--------------------------|-----------------|-----------------------|----------------|-----------------------|--------------|-----------------------|
| I do not know how to interpret the meaning of classical music | | | | | | | |
| I am afraid it will take long | | | | | | | |
| I do not feel connected to the rest of the audience (e.g. there is no people from my age) | | | | | | | |
| I have no one to go with | | | | | | | |
| I prefer to attend other cultural events | | | | | | | |
| I do not know anything about classical music | | | | | | | |
| I do not know how to behave in the classical music concert | | | | | | | |

Please rate the degree to which you agree or disagree with each of the following statements regarding **using mobile phones and mobile apps during the classical music concert** (1 = Strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neutral, 5 = somewhat agree, 6 = agree, 7 = strongly agree)

| | Strongly disagree (1) | Disagree (2) | Somewhat agree (3) | Neutral (4) | Somewhat agree (5) | Agree (6) | Strongly agree (7) |
|---|--------------------------|-----------------|-----------------------|----------------|-----------------------|--------------|-----------------------|
| Mobile apps might make the classical music concert interactive, increasing the participation of the audience | | | | | | | |
| I find using mobile phones during the classical music concert inappropriate | | | | | | | |
| I would use mobile apps during the concert if they are adapted to the setting of the classical music concert (e-g. dark screen with no bright, muted notifications from other apps, etc.) | | | | | | | |
| I am afraid of missing what is happening on stage if I am looking at my phone | | | | | | | |
| I would use mobile apps that give me a better context about the music being played (historical context, the life of the composer, explanation of the music, etc.) | | | | | | | |
| I would use mobile apps that teach me how to listen to classical music | | | | | | | |
| Mobile apps to educate new listeners can be a good introductory experience to non-familiar audiences to classical music concerts | | | | | | | |
| Mobile apps would distract me from listening to the music | | | | | | | |

What is the maximum price you would be willing to pay for such an app?

The questionnaire is finished. Thank you very much for your participation!

B. Questionnaire guide and coding of quantitative variables

| QUESTION | SOURCE | TYPE OR VARIABLE | CODING |
|--|---|------------------|--|
| How old are you? <input type="checkbox"/> 18 – 24 <input type="checkbox"/> 25 - 34 <input type="checkbox"/> >34 | Netherlands Institute for Social Research (SCP) | Ordinal | ITEM 1 18 – 24 (1) 25 – 34 (2) > 35 (3) |
| What is your gender? <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Prefer not to say | Netherlands Institute for Social Research (SCP) | Nominal | ITEM 2 Male (1) Female (2) Prefer not to say (3) |
| What is your highest degree of education? <input type="checkbox"/> Primary education <input type="checkbox"/> Secondary education <input type="checkbox"/> Vocational education <input type="checkbox"/> University degree | - | Nominal | ITEM 3 Primary education (1) Secondary education (2) Vocational education (3) University degree (4) |
| What is your employability? <input type="checkbox"/> I work full-time <input type="checkbox"/> I work part-time <input type="checkbox"/> I am a student <input type="checkbox"/> I am self-employed / freelancer <input type="checkbox"/> I am looking for a job | - | Nominal | ITEM 4 I work full-time (1) I work part-time (2) I am a student (3) I am self-employed / freelancer (4) I am not employed (5) Other (6) |
| What is your nationality? | - | Nominal | ITEM 5 |

| Behavioral aspects and habits | | | |
|---|--|----------------------|---|
| <p>Have you received exposure to classical music when you were a kid / teenager? (e.g.: music school, conservatory, learning to play an instrument, youth orchestra, extracurricular activities, parents liking classical music...)</p> <input type="checkbox"/> Yes <input type="checkbox"/> No | <p>Kolb (2001) Pitts & Spencer (2008) Chiat (2009)</p> | Nominal | <p>ITEM 6 Yes (1) No (2)</p> |
| <p>How often do you listen to classical music at home?</p> <input type="checkbox"/> Never <input type="checkbox"/> 1-4 times per month <input type="checkbox"/> 5-10 times per month <input type="checkbox"/> More than 10 times per month | <p>Kolb (2001) Vercammen (2017) Mulligan et al. (2019)</p> | Ordinal | <p>ITEM 7 Never (1) 1-4 times per month (2) 5-10 times per month (3) More than 10 times per month (4)</p> |
| <p>How often do you attend live classical music concerts?</p> <input type="checkbox"/> Never <input type="checkbox"/> 1-4 times per year <input type="checkbox"/> 5-10 times per year <input type="checkbox"/> More than 10 times per year | - | Ordinal | <p>ITEM 8 Never (1) 1-4 times per year (2) 5-10 times per year (3) More than 10 times per year (4)</p> |
| <p>On a scale from 0-10, how likely is that you will attend a live classical music concert during the next 3 months?</p> <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 | - | Interval (10 points) | <p>ITEM 9 0 (0) 1(1) 2(2) 3(3) 4(4) 5(5) 6(6) 7(7) 8(8) 9(9) 10(10)</p> |
| <p>What is the maximum price you would be willing to pay for a live classical music concert?</p> | - | Ordinal | <p>ITEM 10</p> |
| <p>How often do you attend other cultural events? (e.g. music festivals, dance performances, museums, going to the cinema...)</p> <input type="checkbox"/> Never <input type="checkbox"/> 1-4 times per month <input type="checkbox"/> 5-10 times per month <input type="checkbox"/> More than 10 times per month | - | Ordinal | <p>ITEM 11 Never (1) 1-4 times per month (2) 5-10 times per month (3) More than 10 times per month (4)</p> |

| | | | |
|--|---|-----------------------------------|--|
| <p>Which kind of cultural expressions / genres did you participate in the last 3 months?</p> <input type="checkbox"/> Musicals <input type="checkbox"/> Cinema <input type="checkbox"/> Pop / Rock Concerts <input type="checkbox"/> Museums <input type="checkbox"/> Art Galleries <input type="checkbox"/> Ballet / opera <input type="checkbox"/> Classical music <input type="checkbox"/> Theatre play <input type="checkbox"/> Music Festival <input type="checkbox"/> Other: _____ | <p>van Eijck & Knulst (2005)</p> | <p>Nominal</p> | <p>ITEM 12 Musicals (1) Film (2) Pop / Rock Concerts (3) Exhibitions in museums (4) Exhibitions in art galleries (5) Ballet / opera (6) Classical music (7) Theatre play (8) Music Festival (9) Other: Spoken word (10), Jazz concerts / jams (11), art fairs (12), modern dance (13), music conferences (14)</p> |
| <p>Motivations / needs for attendance</p> | | | |
| <p>A specific soloist / conductor / ensemble / orchestra</p> <input type="checkbox"/> Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree | <p>Roose (2008) → Intrinsic motivations (specific)</p> | <p>Interval (Likert 7 points)</p> | <p>ITEM 13 Strongly disagree (1) Disagree (2) Somewhat disagree (3) Neutral (4) Somewhat agree (5) Agree (6) Strongly agree (7)</p> |
| <p>A specific music piece being played</p> <input type="checkbox"/> Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree | <p>Roose (2008) → Intrinsic motivations (specific)</p> | <p>Interval (Likert 7 points)</p> | <p>ITEM 14 Strongly disagree (1) Disagree (2) Somewhat disagree (3) Neutral (4) Somewhat agree (5) Agree (6) Strongly agree (7)</p> |

| | | | |
|---|---|-----------------------------------|---|
| <p>I follow the programming of the concert hall</p> <p><input type="checkbox"/> Strongly disagree</p> <p><input type="checkbox"/> Disagree</p> <p><input type="checkbox"/> Somewhat disagree</p> <p><input type="checkbox"/> Neutral</p> <p><input type="checkbox"/> Somewhat agree</p> <p><input type="checkbox"/> Agree</p> <p><input type="checkbox"/> Strongly agree</p> | <p>Roose (2008) → Intrinsic motivations (general)</p> | <p>Interval (Likert 7 points)</p> | <p>ITEM 15</p> <p>Strongly disagree (1)</p> <p>Disagree (2)</p> <p>Somewhat disagree (3)</p> <p>Neutral (4)</p> <p>Somewhat agree (5)</p> <p>Agree (6)</p> <p>Strongly agree (7)</p> |
| <p>Someone invited me to come</p> <p><input type="checkbox"/> Strongly disagree</p> <p><input type="checkbox"/> Disagree</p> <p><input type="checkbox"/> Somewhat disagree</p> <p><input type="checkbox"/> Neutral</p> <p><input type="checkbox"/> Somewhat agree</p> <p><input type="checkbox"/> Agree</p> <p><input type="checkbox"/> Strongly agree</p> | <p>Roose (2008) Baker (2000) Hill et al. (2017) → Extrinsic motivations (network), social needs</p> | <p>Interval (Likert 7 points)</p> | <p>ITEM 16</p> <p>Strongly disagree (1)</p> <p>Disagree (2)</p> <p>Somewhat disagree (3)</p> <p>Neutral (4)</p> <p>Somewhat agree (5)</p> <p>Agree (6)</p> <p>Strongly agree (7)</p> |
| <p>I saw it announced in the media</p> <p><input type="checkbox"/> Strongly disagree</p> <p><input type="checkbox"/> Disagree</p> <p><input type="checkbox"/> Somewhat disagree</p> <p><input type="checkbox"/> Neutral</p> <p><input type="checkbox"/> Somewhat agree</p> <p><input type="checkbox"/> Agree</p> <p><input type="checkbox"/> Strongly agree</p> | <p>Roose (2008) → Extrinsic motivations (media)</p> | <p>Interval (Likert 7 points)</p> | <p>ITEM 17</p> <p>Strongly disagree (1)</p> <p>Disagree (2)</p> <p>Somewhat disagree (3)</p> <p>Neutral (4)</p> <p>Somewhat agree (5)</p> <p>Agree (6)</p> <p>Strongly agree (7)</p> |
| <p>I want to experience something new</p> <p><input type="checkbox"/> Strongly disagree</p> <p><input type="checkbox"/> Disagree</p> <p><input type="checkbox"/> Somewhat disagree</p> <p><input type="checkbox"/> Neutral</p> <p><input type="checkbox"/> Somewhat agree</p> <p><input type="checkbox"/> Agree</p> <p><input type="checkbox"/> Strongly agree</p> | <p>Roose (2008) Baker (2000) Hill et al. (2017) → Personal development, stimulation</p> | <p>Interval (Likert 7 points)</p> | <p>ITEM 18</p> <p>Strongly disagree (1)</p> <p>Disagree (2)</p> <p>Somewhat disagree (3)</p> <p>Neutral (4)</p> <p>Somewhat agree (5)</p> <p>Agree (6)</p> <p>Strongly agree (7)</p> |

| | | | |
|---|---|-----------------------------------|---|
| <p>I want to relax</p> <input type="checkbox"/> Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree | <p>Baker (2000) Hill et al. (2017) → Emotional and psychological needs</p> | <p>Interval (Likert 7 points)</p> | <p>ITEM 19 Strongly disagree (1) Disagree (2) Somewhat disagree (3) Neutral (4) Somewhat agree (5) Agree (6) Strongly agree (7)</p> |
| <p>I want to learn more about classical music</p> <input type="checkbox"/> Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree | <p>Roose (2008) Baker (2000) Hill et al. (2017) → Personal development</p> | <p>Interval (Likert 7 points)</p> | <p>ITEM 20 Strongly disagree (1) Disagree (2) Somewhat disagree (3) Neutral (4) Somewhat agree (5) Agree (6) Strongly agree (7)</p> |
| <p>Barriers</p> | | | |
| <p>I do not know how to interpret the meaning of classical music</p> <input type="checkbox"/> Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree | <p>Baker (2000) → nature of the art form</p> | <p>Interval (Likert 7 points)</p> | <p>ITEM 21 Strongly disagree (1) Disagree (2) Somewhat disagree (3) Neutral (4) Somewhat agree (5) Agree (6) Strongly agree (7)</p> |

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| <p>I am afraid it will take long</p> <p><input type="checkbox"/> Strongly disagree</p> <p><input type="checkbox"/> Disagree</p> <p><input type="checkbox"/> Somewhat disagree</p> <p><input type="checkbox"/> Neutral</p> <p><input type="checkbox"/> Somewhat agree</p> <p><input type="checkbox"/> Agree</p> <p><input type="checkbox"/> Strongly agree</p> | <p>Baker (2000) → nature of the artform</p> | <p>Interval (Likert 7 points)</p> | <p>ITEM 22</p> <p>Strongly disagree (1)</p> <p>Disagree (2)</p> <p>Somewhat disagree (3)</p> <p>Neutral (4)</p> <p>Somewhat agree (5)</p> <p>Agree (6)</p> <p>Strongly agree (7)</p> |
| <p>I do not feel connected to the rest of the audience (e.g. there is no people from my age)</p> <p><input type="checkbox"/> Strongly disagree</p> <p><input type="checkbox"/> Disagree</p> <p><input type="checkbox"/> Somewhat disagree</p> <p><input type="checkbox"/> Neutral</p> <p><input type="checkbox"/> Somewhat agree</p> <p><input type="checkbox"/> Agree</p> <p><input type="checkbox"/> Strongly agree</p> | <p>Baker (2000) Abbing (2019) → Social barriers</p> | <p>Interval (Likert 7 points)</p> | <p>ITEM 23</p> <p>Strongly disagree (1)</p> <p>Disagree (2)</p> <p>Somewhat disagree (3)</p> <p>Neutral (4)</p> <p>Somewhat agree (5)</p> <p>Agree (6)</p> <p>Strongly agree (7)</p> |
| <p>I have no one to go with</p> <p><input type="checkbox"/> Strongly disagree</p> <p><input type="checkbox"/> Disagree</p> <p><input type="checkbox"/> Somewhat disagree</p> <p><input type="checkbox"/> Neutral</p> <p><input type="checkbox"/> Somewhat agree</p> <p><input type="checkbox"/> Agree</p> <p><input type="checkbox"/> Strongly agree</p> | <p>Baker (2000) → Social barriers</p> | <p>Interval (Likert 7 points)</p> | <p>ITEM 24</p> <p>Strongly disagree (1)</p> <p>Disagree (2)</p> <p>Somewhat disagree (3)</p> <p>Neutral (4)</p> <p>Somewhat agree (5)</p> <p>Agree (6)</p> <p>Strongly agree (7)</p> |

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| <p>I prefer to attend other cultural events</p> <p><input type="checkbox"/> Strongly disagree</p> <p><input type="checkbox"/> Disagree</p> <p><input type="checkbox"/> Somewhat disagree</p> <p><input type="checkbox"/> Neutral</p> <p><input type="checkbox"/> Somewhat agree</p> <p><input type="checkbox"/> Agree</p> <p><input type="checkbox"/> Strongly agree</p> | <p>Baker (2000) → Availability of substitutes</p> | <p>Interval (Likert 7 points)</p> | <p>ITEM 25</p> <p>Strongly disagree (1)</p> <p>Disagree (2)</p> <p>Somewhat disagree (3)</p> <p>Neutral (4)</p> <p>Somewhat agree (5)</p> <p>Agree (6)</p> <p>Strongly agree (7)</p> |
| <p>I do not know anything about classical music</p> <p><input type="checkbox"/> Strongly disagree</p> <p><input type="checkbox"/> Disagree</p> <p><input type="checkbox"/> Somewhat disagree</p> <p><input type="checkbox"/> Neutral</p> <p><input type="checkbox"/> Somewhat agree</p> <p><input type="checkbox"/> Agree</p> <p><input type="checkbox"/> Strongly agree</p> | <p>Baker (2000) Dobson (2010) → Lack of knowledge</p> | <p>Interval (Likert 7 points)</p> | <p>ITEM 26</p> <p>Strongly disagree (1)</p> <p>Disagree (2)</p> <p>Somewhat disagree (3)</p> <p>Neutral (4)</p> <p>Somewhat agree (5)</p> <p>Agree (6)</p> <p>Strongly agree (7)</p> |
| <p>I do not know how to behave in the classical music concert</p> <p><input type="checkbox"/> Strongly disagree</p> <p><input type="checkbox"/> Disagree</p> <p><input type="checkbox"/> Somewhat disagree</p> <p><input type="checkbox"/> Neutral</p> <p><input type="checkbox"/> Somewhat agree</p> <p><input type="checkbox"/> Agree</p> <p><input type="checkbox"/> Strongly agree</p> | <p>Baker (2000) Dobson (2010) → Lack of knowledge</p> | <p>Interval (Likert 7 points)</p> | <p>ITEM 27</p> <p>Strongly disagree (1)</p> <p>Disagree (2)</p> <p>Somewhat disagree (3)</p> <p>Neutral (4)</p> <p>Somewhat agree (5)</p> <p>Agree (6)</p> <p>Strongly agree (7)</p> |

| Mobile apps | | | |
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| <p>Mobile apps might make the classical music concert interactive, increasing the participation of the audience</p> <p><input type="checkbox"/> Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree</p> | <p>(Gosling et al., 2016)</p> | <p>Interval (Likert 7 points)</p> | <p>ITEM 28 Strongly disagree (1) Disagree (2) Somewhat disagree (3) Neutral (4) Somewhat agree (5) Agree (6) Strongly agree (7)</p> |
| <p>I find using mobile phones during the classical music concert inappropriate</p> <p><input type="checkbox"/> Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree</p> | <p>Dobson, (2010) Crawford et al., (2012)</p> | <p>Interval (Likert 7 points)</p> | <p>ITEM 29 Strongly disagree (1) Disagree (2) Somewhat disagree (3) Neutral (4) Somewhat agree (5) Agree (6) Strongly agree (7)</p> |
| <p>I would use mobile apps during the concert if they are adapted to the setting of the classical music concert (e-g. dark screen with no bright, muted notifications from other apps, etc.)</p> <p><input type="checkbox"/> Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree</p> | <p>Wolfgang app (n.d.)</p> | <p>Interval (Likert 7 points)</p> | <p>ITEM 30 Strongly disagree (1) Disagree (2) Somewhat disagree (3) Neutral (4) Somewhat agree (5) Agree (6) Strongly agree (7)</p> |

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| <p>I am afraid of missing what is happening on stage if I am looking at my phone</p> <p><input type="checkbox"/> Strongly disagree</p> <p><input type="checkbox"/> Disagree</p> <p><input type="checkbox"/> Somewhat disagree</p> <p><input type="checkbox"/> Neutral</p> <p><input type="checkbox"/> Somewhat agree</p> <p><input type="checkbox"/> Agree</p> <p><input type="checkbox"/> Strongly agree</p> | Brown (2004) | Interval (Likert 7 points) | <p>ITEM 31</p> <p>Strongly disagree (1)</p> <p>Disagree (2)</p> <p>Somewhat disagree (3)</p> <p>Neutral (4)</p> <p>Somewhat agree (5)</p> <p>Agree (6)</p> <p>Strongly agree (7)</p> |
| <p>I would use mobile apps that give me a better context about the music being played (historical context, the life of the composer, explanation of the music, etc.)</p> <p><input type="checkbox"/> Strongly disagree</p> <p><input type="checkbox"/> Disagree</p> <p><input type="checkbox"/> Somewhat disagree</p> <p><input type="checkbox"/> Neutral</p> <p><input type="checkbox"/> Somewhat agree</p> <p><input type="checkbox"/> Agree</p> <p><input type="checkbox"/> Strongly agree</p> | Wolfgang app (n.d.) Dobson (2010) | Interval (Likert 7 points) | <p>ITEM 32</p> <p>Strongly disagree (1)</p> <p>Disagree (2)</p> <p>Somewhat disagree (3)</p> <p>Neutral (4)</p> <p>Somewhat agree (5)</p> <p>Agree (6)</p> <p>Strongly agree (7)</p> |
| <p>I would use mobile apps that teach me how to listen to classical music</p> <p><input type="checkbox"/> Strongly disagree</p> <p><input type="checkbox"/> Disagree</p> <p><input type="checkbox"/> Somewhat disagree</p> <p><input type="checkbox"/> Neutral</p> <p><input type="checkbox"/> Somewhat agree</p> <p><input type="checkbox"/> Agree</p> <p><input type="checkbox"/> Strongly agree</p> | Dobson & Pitts (2011) | Interval (Likert 7 points) | <p>ITEM 33</p> <p>Strongly disagree (1)</p> <p>Disagree (2)</p> <p>Somewhat disagree (3)</p> <p>Neutral (4)</p> <p>Somewhat agree (5)</p> <p>Agree (6)</p> <p>Strongly agree (7)</p> |

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| <p>Mobile apps to educate new listeners can be a good introductory experience to non-familiar audiences to classical music concerts</p> <p><input type="checkbox"/> Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree</p> | <p>Liem et al., (2013)</p> | <p>Interval (Likert 7 points)</p> | <p>ITEM 34 Strongly disagree (1) Disagree (2) Somewhat disagree (3) Neutral (4) Somewhat agree (5) Agree (6) Strongly agree (7)</p> |
| <p>Mobile apps would distract me from listening to the music</p> <p><input type="checkbox"/> Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> Neutral <input type="checkbox"/> Somewhat agree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree</p> | <p>Brown (2004)</p> | <p>Interval (Likert 7 points)</p> | <p>ITEM 35 Strongly disagree (1) Disagree (2) Somewhat disagree (3) Neutral (4) Somewhat agree (5) Agree (6) Strongly agree (7)</p> |
| <p>What is the maximum price you would be willing to pay for such an app?</p> | <p>-</p> | <p>Ordinal</p> | <p>ITEM 36</p> |

C. Interview guide

What is your role in _____ (name of the ensemble / orchestra)?

What kind of tasks are included in your working routine as a _____ (name of the role)?

How would you describe the mission of the orchestra / ensemble?

Is the orchestra/ ensemble more identified with innovation values, or more traditional and heritage - oriented? (or something in between)

What do you find important in the decisions about programming?

Why or why not do you find important to have a diversity in your audience?

To what extent do you think that the program should be adapted to attract new target groups?

To what extent do you focus on young audiences when reaching new target groups?

Are there concerts or settings given by the ensemble/orchestra specifically focused on young audiences? If yes, how do they look like?

What is your experience reaching young audiences? What works and what does not work?

In what way education is used to attract young audiences?

Is your orchestra/ensemble already working with mobile apps during the concert with the aim of educating the audiences?

If yes:

If not:

What are the objectives you aim for this tool in terms of audience development?

Has the ensemble/orchestra ever considered this option to attract young audiences?

Do you aim to attract younger audiences with them, especially the ones that are used to classical music listening? If yes, how?

What are your objections to use mobile apps during the concert?

Young people between 18 and 34 years old is that they find the use of mobile phones during the classical music concert unrespectful for the rest of the audience and inappropriate. And besides that, they fear to miss what is happening on stage if they are looking at their phone. How can it be then that these apps are being not only successful but also accepted by the musicians and by the audience?

People between 18 and 34 years old think that these mobile apps are a good introductory experience to those audiences that are not very familiar with classical music yet. How do you think that apps can be implemented into the strategy of an orchestra to attract them?

What about apps in general used to engage young audiences? (For example, apps that can be used to watch videos, to get information on the music before the concert, or buy tickets)

Funny/nice question, like favorite composer or memories about classical music when they were kids? Or what do you like the most of your job?

D. Interview coding

| Subcodes | Codes | Themes |
|--|---|-------------------|
| Music heritage, tradition | Heritage | Mission |
| Pioneering, YouTube, open, platforms, online, funding | Innovation | |
| International, excellence, level | Quality | |
| LGTBI+, refugees, opportunity, exclusion, city, public institution, schools, care homes, everybody | Accessibility | |
| Identity, respect to the artform, be true to yourself | Values | |
| Cost, time, mobility, formality | Barriers | Younger audiences |
| Schools, youth orchestras, children, family | Education | |
| Jazz, hip-hop, cabaret, spoken word, rock, theater, movie, musical | Mixed artforms | |
| Core Classics, club, shopping centers, car parks, factories, VR installation, squares, festivals | Different settings | |
| Conservatoire, university, student houses, student pulse app, college in concert, price discrimination | Students | |
| Ambassadors, friends, word-to-mouth, packs, informal display | Social need | |
| Social media, marketing online, YouTube, branding | Online presence | |
| Aim, exploration, dark screen, good communication, informal tickets, app linked to ticket, not a USP | Viability | Mobile apps |
| Distraction, too theoretical, text, disconnection, better alternatives | Problems | |
| Afraid of trying, not a priority, internal policies, costly, conflict private partners | Barriers of adoption | |
| First time, first step, lack of knowledge, core classics | Mobile apps as an introductory experience | |
| Musicians, conductor, didactic guides, program handout | Substitutes and alternatives | |
| Own app, YouTube, concert recommendations, build communities, special prices | Mobile apps to engage young audiences | |