Much More Than a Mic: Assessing Processes and Practices of Independent German Podcast Production Through Qualitative Interviews

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Abstract

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Much More Than a Mic: Assessing Processes and Practices of Independent German Podcast Production Through Qualitative Interviews

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This thesis examines the production processes and practices of German podcasts and podcast episodes. For this study, 15 semi-structured interviews were conducted with 19 independent German podcasters, and the empirical data was analyzed using Grounded Theory. The results show that podcasting is mainly concerned with episode production – which can be segmented into pre-production, recording, and post-production stage – and monetization. Each stage is composed of a variety of sub-processes and practices that influence each other throughout the episode production and monetization process. The results further show that the production of German podcasts is becoming increasingly professionalized, even though most podcasters still produce their podcasts in their spare time.

Dedication

Ich möchte diese Masterarbeit meinen Eltern und meinen Großeltern widmen, deren Liebe und Unterstützung mich stets durch alle Unwegsamkeiten des Lebens geleitet haben. Danke, dass ihr stets an mich geglaubt habt. Ihr bedeutet mir die Welt.

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Chapter 1: Introduction

In recent years, podcasting has become a rapidly expanding cultural phenomenon. As of 2021, nearly 60 percent than half of the U.S. population has listened to a podcast at least once and over 40 percent of Americans consume podcasts regularly (Edison Research, 2021a). Podcasts are also becoming increasingly popular outside the English-speaking world. Current statistics from various countries indicate that on average, one-third of the world's population listens to podcasts regularly (Newman et al., 2020, p. 26).

The global media trend had its beginnings in 2004 when online audio content and portable MP3 players became increasingly popular. Back then, downloading audio files and transferring them to an MP3 player was a time-consuming and cumbersome process. To simplify the complicated download process, former MTV VJ Adam Curry developed a program that automatically downloaded MP3 files via RSS (Really Simple Syndication) feeds (McClung & Johnson, 2010, p. 83). At that time, RSS feeds were commonly used for web blogs, as they allowed the chronological display of the latest posts. However, what was originally only intended to facilitate the distribution of online audio became increasingly popular with many bloggers and amateur radio producers. Accompanied by numerous technological advancements such as the invention of the smartphone, and the increasing availability of mobile internet and audio editing software, podcasts had their breakthrough into the mainstream in 2014 with the first season of the WBEZ produced true-crime podcast "Serial" (Berry, 2015, p. 171). With over 40 million downloads within the first two months after its release (Roberts, 2014), "Serial" made it apparent that podcasts not only appeal to a niche audience, but that there is increasing demand for high-quality and/or journalistically produced audio content.

Today, the current popularity of podcasts is reflected not only in the growing number of users but also in the accompanying profitability of the podcast market. According to the Internet Advertising Bureau, advertising revenue from podcasts is expected to reach over $1 billion by 2021, which would amount to an increase of nearly 15 percent even during the economic slowdown caused by COVID-19 (Internet Advertising Bureau, 2020). As audience numbers and advertising revenues decline, particularly in print and TV (Vorhaus, 2020), podcasts are becoming increasingly attractive to many U.S. media organizations. In fact, many of the most successful podcasts today are produced by traditional media companies, such as "The Daily" produced by The New York Times, "Planet Money" produced by NPR, "Radiolab" produced by WNYC or "Dateline NBC" produced by NBC (Edison Research, 2021b). In addition, many media companies are investing in the acquisition of podcast services and exclusive titles. In 2019, Spotify bought podcast production company Gimlet Media and service provider Anchor FM for $337 million (Spangler, 2019). In 2020, satellite radio giant SiriusXM bought the podcasting app and production network Stitcher from E.W. Scripps for $325 million (Carman, 2020b). Since December 2020, the immensely popular podcast "The Joe Rogan Experience" has been available exclusively on Spotify – a licensing deal worth an estimated $100 million (Koetsier, 2020). Also in December 2020, Spotify announced a multiyear partnership with the Duke and Duchess of Sussex (Spotify, 2020). As of February 2021, Spotify launched another exclusive podcast show called "Renegades", whose hosts are Barack Obama and Bruce Springsteen (Byers, 2021).

Alongside those high-profile podcasts, however, there is also an ever-growing corpus of smaller podcast shows. According to the podcast search engine Listen Notes there are currently (as of March 2021) more than two million podcast shows with over 96 million episodes (Listen Notes, n.d.). In comparison, in February 2020, there were less than 1 million podcast shows and in October 2018, there were slightly less than 400,000 podcast shows (Misener, 2020). The data on how many podcast shows exist vary greatly from source to source and depends heavily on how many directories are analyzed. Regardless of the exact numbers, however, it quickly becomes clear that podcasts are currently being produced at an exponential rate.

Despite the considerable media and public attention that podcasts currently receive, there is only a very small body of academic literature on podcasts. Most of the literature is about the definition of podcasts, its history, and its distinction from radio (Berry, 2006, 2015, 2016a, 2016b; Bonini, 2015; Bottomley, 2015b; Cwynar, 2015). Another large portion of the literature is about the audience, particularly their motivations for listening to podcasts (Boling & Hull, 2018; McClung & Johnson, 2010; Perks & Turner, 2019; Wrather, 2016). Sporadically, there are contributions on platform and podcatcher software (Morris & Patterson, 2015; Sullivan, 2019) or advertising (Ritter & Cho, 2009). Only very few papers explicitly discuss the production or the producers of podcasts. Texts dealing with the narration of podcasts partly touch on aspects of production, but remain superficial (Boling, 2019; Dowling & Miller, 2019; Lindgren, 2016). Boling addresses the balance between objectivity versus advocacy when talking about crime, the different types of publishing (e.g. weekly episodes or a „bingeable“ season at once) and that podcasters regularly interact with their audience online (Boling,

2019, pp. 171–174). Dowling and Miller talk about "podcasting's distinct turn toward self-reflexivity where the reporting process itself moves from peripheral to main text" (Dowling & Miller, 2019, p. 170), meaning that many podcasts report how information is attained or presented and the ethical considerations behind it. Similarly, Lindgren also addresses the fact that podcasts with human interest topics require a trust-inspiring and unbiased presentation style, as hosts often quickly switch between objective facts and their own experiences (Lindgren, 2016, pp. 36–37). However, what all authors have in common is that they exclusively focus on the true crime genre, which only comprises roughly five percent of all podcasts (Misener, 2020). Furthermore, their explorations are based on the manifest content of a podcast, meaning that conclusions are drawn from the content to the production. While all authors focused on storytelling rather than production, conversely, these conclusions also show just how little is known about podcast production. McHugh also examined storytelling in podcasts; however, although she conducted interviews with people in charge of various podcasts, production processes and practices are not directly addressed. The interviews and McHugh's observations focus primarily on the differentiation between radio and podcasts (McHugh, 2016, pp. 70–72). Nonetheless, she also notes that many podcasts have a relatively similar "hand-holding host-driven linear narrative" (McHugh, 2016, p. 72) which is a crucial feature of podcasts for many listeners. Although McHugh herself did not draw this conclusion, one can say that this resemblance in narrative style might be an indicator that many podcasts are produced in a relatively similar way, in other words, that podcast production processes follow a similar pattern. Therefore, statements about podcast production processes in McHugh's paper also remain conjectural.

One of the more extensive texts concerning podcast production is Markman and Sawyer's study that examines the motivations of independent podcasters (Markman & Sawyer, 2014, pp. 26–32). They found out that independent podcasters were primarily male, middle-aged, highly educated, and tech-savvy. Almost all of the respondents produced a talk-based podcast and nearly half of the respondents produced one podcast episode per week. In addition, two-thirds of the participants included guests in their podcasts. Most of the podcast expenditures were spent on server/bandwidth (50%), equipment (42.5%), content (7.5%), music royalties (5.8%) and guests (3.3%). To generate revenue, the respondents used advertising or sponsorships, listener donations, merchandise sales, or listener memberships. However, nearly 40 percent of the participants indicated that their podcast generated no revenue. To connect with their audiences, three-quarters of the respondents solicited emails from listeners and more than half of them accepted listener requests and/or employed listener contests. About two out of five podcasters also included listener calls and/or had listener forums. In addition, respondents were highly engaged with social media. Around two-thirds of the podcasters hosted a podcast blog and/or maintained a podcast profile on Twitter or Facebook. Many started podcasting as a way of public self-expression and the desire to communicate with a niche audience. The main motivation behind continuing the podcast was the feedback from the audience along with a constant improvement of skills. A few respondents also stated that podcasting was part of their career since it generated some revenue.

Attig's adaptation of Markman and Sawyer's study for German podcast producers is one of the few studies that address podcast production outside the Anglo-American market (Attig, 2020, pp. 6–9). Similar to Markman and Sawyer's study, Attig also

identified that on average German podcasters were male, middle-aged, highly educated, and tech-savvy. Most German podcasters produced their podcast independently, while less than 10 percent do podcasting as a commissioned production or as part of their job. Over two-thirds of the podcasters produced only one podcast, nearly 20 percent produced two podcasts, and 13 percent produced three or more podcasts. When surveyed, about one-third of the podcasts had been produced for less than a year, about 20 percent had been produced for one to two years, about 15 percent had been produced for two to three years, another 15 percent had been produced for three to five years, and another 15 percent had been produced for more than five years. Most podcasts were produced in the category society and culture (20.4%), followed by games and hobbies (10%), knowledge and science (9%), TV and film (8.7%), and sports (7.6%). The fewest podcasts were produced in the categories religion and spirituality (1.8%), radio drama (1.2%), and government (1.1%). Less than one percent of podcasters publish daily. Just under a quarter of German podcasters publish once or several times a week, about 23 percent publish biweekly, and just under 20 percent publish monthly. More than a quarter of the podcasters surveyed publish irregularly. Over three-quarters of podcasters do not monetize their podcast, just over 10 percent use crowdfunding, and less than 5 percent have advertising revenue. In contrast to Markman and Sawyer, a large proportion of German podcasters reported interacting little with listeners, although they felt very connected with their audience. As one of the first scholarly studies, Attig also collects data on pre- and post-production time for podcast episodes, which represents a first step toward analyzing podcast production processes. About 35 percent of podcasts require less than two hours of pre- and post-production time, more than a quarter require two to four

hours of pre- and post-production time, 27 percent require four to 10 hours, and about 10 percent require more than 10 hours to produce an episode.

Markman and Sawyer's and Attig's findings offer valuable inside into the demographics and behaviors of podcast producers, but they also remain largely superficial when it comes to the production practices. For example, although Attig collected initial data on pre- and post-production time, the data is analyzed primarily in relation to possible gender differences - since there are no significant gender differences in pre- and post-production time, they are not examined further. For a more detailed insight into the production of podcasts, it would have been more useful, for example, to compare the pre- and post-production time with the publication rhythm.

Overall, it can be stated that although podcasts are increasingly the focus of media research, most of it is strongly centered on the audience and the content of podcasts. The production processes and practices, especially of non-English speaking countries, therefore represent a research gap, which this thesis attempts to close. Therefore, the research question asks:

RQ: What processes and practices[1] constitute the production of a German podcast (episode)?

[1] In the context of this work, processes are defined as occurring along a timeline. Thus, there was a risk that some aspects of podcast production would be lost, such as the question of what type of microphone is used, as these do not theoretically constitute a process. Therefore, the research question was expanded to include the aspect of practices, which allows for a broader consideration of podcast production.

Chapter 2: Literature Review

2.1 Definition of Podcast

The two most common definition approaches in academic literature are the technical distribution-related approach and the institutional content-related approach, which often aims to differentiate podcasts from radio. In order to ensure the most comprehensive definition of podcasts possible, characteristics of both approaches are explained and finally combined into a single definition.

In the early stages of podcasting, the term was used very loosely for a variety of online audio content, which is not surprising considering that “podcasting” was created first and foremost as a collective term to encompass the plethora of downloadable audio and its consumption on portable media players, most notably Apple’s iPod (Bottomley, 2015b, p. 166). This initial universality of the term was then also adopted in early definition attempts. Berry, for instance, defines podcasting as “an over-arching term for any audio-content downloaded from the internet either manually from a website or automatically via software applications” (Berry, 2006, p. 144). However, although the definition is deliberately broad, it already includes the two most important technical components of the podcast - the RSS feed and the audio.

RSS is the abbreviation for "Really Simple Syndication" and refers to a text-based XML file found on a permanent URL. In the case of podcasts, the RSS feed contains data such as titles, descriptions, and the link to the audio file, with new content being displayed chronologically first. A feed reader or aggregator processes the information, and after a feed is subscribed to, the user receives notifications when the feed is updated. Special feed readers for podcasts are called podcatchers. Podcatchers such as Apple

Podcasts, Google Podcasts or Overcast process the podcast's RSS feed and download the audio file via the link provided in the RSS feed (Schönfelder, 2019). For scholars like Bottomley "[i]t is the RSS feed that distinguishes podcasting from streaming audio and a plethora of other downloadable audio media files online" (Bottomley, 2015b, p. 166). However, Markman and Sawyer raise an interesting point by arguing that "[t]his 'podcasting as distribution channel' definition is most appropriate when discussing podcast versions of traditional broadcast content" (Markman & Sawyer, 2014, p. 21), meaning that just because an audio format is distributed via an RSS feed does not make it a podcast in terms of content. This is especially important considering current developments, with platforms such as Spotify storing podcast content on their servers, thus enabling in-platform streaming, making RSS distribution obsolete (Sullivan, 2019, p. 7). The RSS distribution is therefore a useful criterion to distinguish podcasts from a vast variety of online audio content, but it falls short as a unique feature.

Another more technical aspect of the podcast definition is the strong focus on audio files, which can sometimes be misleading, giving the impression that only an MP3 file can be a podcast. However, an increasing number of video formats are also being labeled as podcasts (Markman & Sawyer, 2014, p. 21). The dominance of audio files has its roots in the history of podcasting. In the early 2000s, when many users still accessed the Internet via dial-up with low download speeds, downloading smaller audio files such as MP3 was less time-consuming and was therefore preferred to larger video files (Berry, 2006, p. 147). Due to the widespread use of broadband Internet access, however, small file sizes are nowadays only attractive concerning mobile Internet. Relevant for the podcast definition is simply the audio track, meaning that a soundless video cannot be a

podcast. However, because a podcast is always audio-bound, a podcast can only be an audio or video file. In conclusion, the technical aspects of podcasting can be summarized with Bottomley's definition: "podcasting refers to digital audio [and video] files [...] delivered via RSS to an Internet-connected computer or portable media player" (Bottomley, 2015b, p. 166).

However, as mentioned previously, it is short-sighted to limit the podcast definition only to technical features. Since podcasts were initially distributed almost exclusively as audio files and since the early stages of podcasting ran parallel to the development of online radio, in terms of content, radio very quickly became the frame of reference to describe podcasts. Furthermore, the fact that radio stations started to increasingly publish recorded radio programs under the title podcast did not contribute to the distinction of the podcast medium either (Cwynar, 2015, pp. 192–193). The academic debate about whether podcasting is a part of radio is thereby broadly divided into two camps. Some scholars state that podcasting is merely a "renewed form of [broadcasting]" (Bonini, 2015, p. 23), while other scholars argue that "[p]odcasting is a medium that is sonically influenced by radio, and whilst in places, it is institutionally the same, it should not be seen as actually the same" (Berry, 2018, p. 16). Bonini explains his standpoint primarily by pointing out that the academic literature on podcasts has a "positive, and possibly slightly romanticized, view of podcasting as an emancipating cultural practice" (Bonini, 2015, p. 23), which, however, does not correspond to the real world dominance of traditional radio stations in mainstream podcast content. For Bonini, therefore, the greatest potential of podcasts lies primarily in "emerging new markets and business models as well as a growing number of listeners and practitioners" (Bonini, 2015, p. 23).

Berry's initial euphoria to proclaim podcasts as a "disruptive technology" (Berry, 2006, p. 144) has also subsided, however, Berry still emphasizes that because of the different listening and production practices "any claims that podcasting is radio must be treated cautiously" (Berry, 2018, p. 26). This paper supports Berry's viewpoint that although podcasts and radio share many characteristics, podcasts amplify many of those characteristics, to the point that consumption and production practices become increasingly different from radio.

One of the most important characteristics of podcasts is the deliberate selection of podcast content independent of time and space, meaning that users chose when and where they want to listen to what specific podcast content. Podcasts thus provide the consumer with a high degree of control over the listening situation, allowing even the audio speed to be adjusted according to personal preferences (Spinelli & Dann, 2019, pp. 7–8). In contrast, radio does not offer such a highly personalized selection process. "For the radio listener to experience 'radio', they only need to approach their radio set and turn it on. […] Like a light bulb, it is either on or off." (Berry, 2016b, p. 11) Furthermore, radio is used primarily as an "aural wallpaper" (Berry, 2016b, p. 12), whereas podcasts require more attention and are more engaging due to their dominance of speech.

In addition to demanding more listener engagement, podcasts also offer a more intimate experience than traditional radio. "Whilst radio is an intimate medium [...] it is possible to argue that podcasting takes this a stage further and offers, in many instances, a sense of 'hyper-intimacy'. Podcasts are listened to in an intimate setting (headphones), utilizing an intimate form of communication (human speech)." (Berry, 2016a, p. 666) This higher level of intimacy affects the content of the podcast. Many podcast hosts adopt

a more personal presentation style and often share information about their own lives, which in turn makes listeners feel like they are part of a conversation between friends and creates deep parasocial relationships with strong loyalty to the podcast (Lindgren, 2016, p. 36). In addition, listeners are more often integrated into the podcast, for example by reading out listener feedback, incorporating listener suggestions and ideas, and listeners participating directly in a podcast via telephone calls (Wrather, 2016, pp. 48–51).

Although podcasts were closely associated with radio in the beginning, the success of independently produced podcasts has allowed for a departure from traditional radio practices. For example, podcasts are not subject to the same censorship or time restrictions as radio, which often manifests itself in more explicit language (Berry, 2006, pp. 151–152), niche topics, and varying episode lengths (Spinelli & Dann, 2019, p. 8). Furthermore, unlike radio, podcasts do not have an equivalent to live broadcasting[2], meaning they are only available for download. Boling and Hull refer to this characteristic as "asynchroneity" (Boling & Hull, 2018, p. 94); asynchroneity thereby describing both time-delayed listening (e.g. one year later) as well as listening in a non-linear way (e.g. older episodes before newer episodes). The last important characteristic of podcasts is seriality (Bottomley, 2015b, p. 166). By using RSS feeds as a distribution, seriality is inherent to podcasting, as the RSS feed allows the chronologization of an almost infinite number of episodes. To publish only one audio file or to publish all episodes at once would reduce the use of the RSS feed to absurdity. A podcast must therefore consist of at least three episodes that are at least roughly related in content or style.

[2] Increasingly, podcasts also offer events where an episode is recorded in front of a live audience. However, this usually does not change the fact that the podcast episode is only published after it has been recorded.

Summarizing all the podcast characteristics mentioned above, the following comprehensive podcast definition can be postulated: A podcast consists of at least three or more audio or video files that are related in content or style. The RSS feed is the preferred but not exclusive method of distributing podcasts. Episode length and publishing frequency vary greatly between different podcasts but remain relatively consistent within a podcast show. Although podcasts are sonically influenced by radio, podcast content is increasingly adapting to a different listening behavior. The independence from time and location as well as the high level of customization make the podcast listening situation a highly individualized but also asynchronous experience. Listening through headphones and the dominance of the human voice promote hyper-intimacy, which often shows in a more personal presentation style and a stronger involvement of listeners.

2.2 History of Podcasting

Following the definition of podcasts of the first chapter, the second chapter examines the history of podcasts or, in other words, its diffusion process from invention to niche to mainstream. One of the central theories of communication science to explain how media innovations, such as podcasts, spread in society is the Diffusion of Innovation Theory by the American sociologist and communication theorist Everett M. Rogers (2003). At first, the main elements of the Diffusion of Innovation Theory will be explained, and then the historical development of podcasts will be discussed in detail as it relates to the theoretical framework.

2.2.1 Diffusion of Innovation

The origins of the diffusion of innovation theory stem from a variety of different academic traditions which, until the 1960s, studied the diffusion process largely isolated from other disciplines (Karnowski, 2017, p. 34). Among the earliest discussions of the diffusion process is that of the French sociologist Gabriel Tarde, who at the end of the 19th century described the adoption of innovations through imitation. However, it was not until the 1940s and 1950s that interest in the diffusion of innovations received more attention, especially in the field of agricultural sociology. During this time, U.S. agriculture was making rapid progress, and an increasing number of researchers were interested in how farmers adopted new technologies (Karnowski, 2017, p. 37). As interest from more and more academic disciplines increased, a substantial corpus of literature on the diffusion of innovations was produced, but it mostly existed in separated silos. In 1962, the U.S. sociologist and communication scientist Everett M. Rogers first systematized these studies and synthesized them into a single theory, which, published in his book "Diffusion of Innovations" (2003), is still regarded today as one of the seminal writings of media innovation research.

Rogers emphasized two different processes in his theory: the individual adoption process of an innovation at the micro level and the social diffusion process of an innovation at the macro level. Adoption is therefore the foundation of diffusion, with the diffusion process being the aggregation of individual adoption decisions (Heiko, 2009, p. 21). According to Rogers, "[a]n innovation is an idea, practice, or object perceived as new by an individual or other unit of adoption" (Rogers, 2003, p. 12). An innovation is therefore not bound to the proximity of the date of creation, meaning that a technology

can still be perceived as an innovation even though it has been around for years (e.g. smartphones). Rogers distinguishes the individual adaptation process into five stages, with the result being either the use or the non-use of an innovation by the adopter (Rogers, 2003, pp. 170–177). However, since this chapter focuses on the diffusion of podcasts in society, the individual process shall not be discussed further.

Rogers describes diffusion as "the process by which an innovation is communicated through certain channels over time among the members of a social system" (Rogers, 2003, p. 5). The cumulated depiction of a successful diffusion process usually follows an s-shaped curve (Rogers, 2003, p. 23). At the beginning of the diffusion process the incline is relatively low with only a few people using the innovation. However, once a critical mass[3] is reached, the curve rises rapidly with more and more people adopting the innovation. At the end of the diffusion process, the curve flattens out again since fewer and fewer people have not yet adopted the innovation (Rogers, 2003, p. 23).

Looking at the diffusion process on a non-cumulative basis, the curve follows a bell-shaped normal distribution, based on which the different adopter categories are distinguished depending on their time of adoption. The categories of adopters are innovators, early adopters, early majority, late majority, and laggards. Innovators are the first 2.5 percent of the population to adopt an innovation. They are characterized by a high risk and uncertainty tolerance and usually have considerable financial resources. In addition, they often have a large number of (geographically) dispersed contacts and are thus particularly well suited to integrate new ideas and innovations into the social system

[3] The critical mass is described by Rogers as "the point at which enough individuals have adopted an innovation so that the innovation's further rate of adoption becomes self-sustaining" (Rogers, 2003 p. 344).

(Rogers, 2003, pp. 282–283). Early adopters are the next 13.5 percent of the population to adopt an innovation. They are more strongly integrated into the local social system and are more likely to hold leadership roles. Thus, as role models, early adopters are more frequently asked by members of their social system for advice regarding the adoption and handling of an innovation and therewith help the innovation to gain greater acceptance (Rogers, 2003, p. 283). Once the innovation has passed the point of the critical mass, it is adopted by a larger group - the early majority. The early majority comprises about *34* percent of the population. In contrast to the early adopters, members of the early majority tend not to be opinion leaders but still have many social contacts, which facilitates the further diffusion of innovation (Rogers, 2003, pp. 283–284). The early majority is followed by the late majority, which accounts for roughly 34 percent of the population. Members of the late majority usually have less financial liquidity and tolerate only little uncertainty when it comes to the innovation. They are therefore rather skeptical about innovations and usually adopt innovations out of economic necessity or because of social pressure (Rogers, 2003, p. 284). Laggards are the last segment of a population to adopt an innovation and makeup around 16 percent of the population. They are strongly oriented towards the past and are very suspicious of innovations. In addition, laggards are socially isolated and only maintain social contacts with other laggards. They also have even less financial resources than the late majority and therefore want the greatest certainty possible when adopting an innovation (Rogers, 2003, pp. 284–285).

The rate at which an innovation is adopted depends on the innovation and its characteristics: relative advantage, compatibility, complexity, trialability, and observability. Since the innovation diffusion process can also be described as “an

uncertainty reduction process" (Rogers, 2003, p. 323), characteristics that reduce this uncertainty have a positive effect on the diffusion process, meaning that the innovation is adopted faster. Relative advantage refers to "the degree to which an innovation is perceived as being better than the idea it supersedes" (Rogers, 2003, p. 229). The relative advantage is thereby not objective but subjective to the individual adopter and includes factors such as social status, convenience, or economic gain. The greater the perceived relative advantage, the more rapid is the diffusion process. Compatibility describes "the degree to which an innovation is perceived as consistent with the existing values, past experiences, and needs of potential adopters" (Rogers, 2003, p. 15). The more compatible an innovation is with the adopters' existing values and needs, the more likely they are to adopt the innovation, hence the more rapid an innovation is diffused. Complexity is "the degree to which an innovation is perceived as relatively difficult to understand and use" (Rogers, 2003, p. 15). The less complex an innovation is perceived, the more rapid an innovation is adopted. Therefore, high levels of complexity negatively correlate with the rate of an innovation's diffusion. Trialability refers to "the degree to which an innovation may be experimented with on a limited basis" (Rogers, 2003, p. 16). A product available for free trial offers the adopter to gain experience with the product without having to fully commit to a purchase, which reduces uncertainty. Therefore trialability is positively correlated with the rate of adoption. Observability is the last characteristic of an innovation and is defined as "the degree to which the results of an innovation are visible to others" (Rogers, 2003, p. 16). Visible results lower uncertainty and increase peer interest, whereas low visibility decreases the likelihood of adoption, hence observability is positively correlated with the rate of adoption.

In summary, the diffusion of an innovation consists of an individual adoption at the micro-level and a societal adoption at the macro-level. The social diffusion process can be divided into the following 5 stages: innovators, early adopters, early majority, late majority, and laggards. However, the rate of diffusion is different for each innovation depending on relative advantage, compatibility, complexity, trialability, and observability. Having explained the main aspects of the diffusion of innovation theory, the historical development of podcasting shall now be examined.

2.2.2 History of Podcasts From 2004 Until Today

From Innovation to Innovators (2004-2005). As outlined in the podcast definition, the two preceding technological innovations essential to the history of podcasting are the MP3 format and the RSS feed. MP3 (short for MPEG-1 Audio Layer III) is an audio file standard published in 1993 that enables audio to be compressed into small files, typically one-tenth the size of the uncompressed audio, without losing sound quality (Bellis, 2019). Similarly, early forms of the RSS feed were developed already in the late 1990s, however, the most important version for podcasting was RSS 0.92, which was published by Dave Winer in 2000 and first allowed for audio files to be delivered in RSS feeds (Bottomley, 2015b, p. 164). The origin of podcasting, however, is the year 2004, when former MTV VJ Adam Curry, frustrated by the time it took to manually download audio files from the Internet, tried to automate the process using an RSS feed. Therefore, he created a program that searched for MP3 files in RSS feeds and automatically downloaded them to the computer. Thus, the first podcatching software was created called the iPodder (McClung & Johnson, 2010, p. 83). Curry also created one of the first successful podcasts called “Daily Source Code” and due to his numerous

appearances in various media was titled the “evangelist for the new [podcast] medium” (Berry, 2006, p. 152). According to Berry, Curry was one of the key figures in the early days of podcasting, or as he puts it: “without the PR skills Curry has deployed, the medium may not have developed at the rate it has” (Berry, 2006, p. 152). However, not only was Curry an early ambassador for podcasts, but he also matches the innovator type in many other characteristics.

According to Dedehayir, Ortt, Riverola, and Miralles (2020) “prior experiences (i.e. with similar technologies, with the innovation in question, with an occupation that relates to the innovation, and earlier generations of the innovation)” as well as “high level[s] of technical skills” (Dedehayir et al., 2017, p. 12) are typical predictors for the early adoption of an innovation, hence innovators are more likely to have prior experiences and high levels of technical skills. Additionally, “individuals that have more knowledge (whether this is general, subjective, about supporting systems, or about the innovation itself) are more likely to adopt the innovation” (Dedehayir et al., 2017, p. 13). Curry has worked as radio host for many years which provided him with knowledge about sound recording and distribution technology as well as the audio market. Moreover, his ability to code his own software combining the then relatively new concepts of RSS and MP3 further demonstrates a high interest in technology and innovativeness. Curry’s role as an early ambassador for podcasts also reflects personality traits typical of innovators - opinion leadership and a desire to communicate (Dedehayir et al., 2017, p. 10). Regarding the early listeners of podcasts, there is hardly any data available to conclude the personality or behavior. Therefore, it can only be assumed that early

listeners also had a professional background or high interest in audio and possessed high technical skills to download and listen to the podcasts.

Despite his great prominence in early podcasting history, it was not Curry who created the term podcast, but the British journalist Ben Hammersley. In his 2004 Guardian article, Hemmersley searched for a word to describe how “[o]nline radio is booming thanks to iPods, cheap audio software and weblogs” (Hammersley, 2004). This led to the creation of the word “podcast”, which is an amalgam of the words “iPod”, which was at the time synonymous with all portable media players, and "broadcasting" (Bottomley, 2015b, p. 166). In 2005, "podcast" was declared Word of the Year by the New Oxford American Dictionary and was included in the glossary (Morris & Patterson, 2015, p. 222).

However, despite the initial euphoria, podcasting stayed a niche medium for tech enthusiasts, mainly because of its cumbersome download process. To listen to a podcast, users had to: “first, locate the podcast via one of [the] small directories; second, copy the RSS feed address […]; third, paste it into podcatcher software; and finally, download the audio file to the computer for playback” (Sullivan, 2019, p. 3). In their study about the adoption of the iPad, Ho and Wu (2011) found out that among the five characteristics of an innovation, only complexity was significantly related to the adoption intention (Ho & Wu, 2011, p. 263), meaning that because of the perceived high complexity people were less likely to adopt the iPad. However, Ho and Wu also described that consumers who like to try new products are less discouraged by complexity, but need to be motivated by relative advantage to learn the new skill required by the innovation (Ho & Wu, 2011, p. 264). Early producers might have seen the advantage of podcasts in the relatively free

self-expression independent from previous radio restrictions, while early listeners might have seen podcasts as new content that could be consumed time-independently due to the download. On that notion, Berry (2018) states that "the very early adopters of podcasts were enthusiastically willing to create their own software, drag files from computers to iPods and to connect their devices each morning to download fresh content. The majority of people, though, have less patience, less time, and less technical skill to find, access, and consume content. This is where the development of [user-friendly software and] the smartphone, in particular, the iPhone, […] proved to be so important in carrying podcasting […] into the wider markets of casual media consumers." (Berry, 2018, pp. 22–23)

Technical Advances and the Early Adopters (2005-2014). In 2005 alone, Apple sold over 32 million iPods (Carlson, 2006), and its digital media store iTunes dominated the Internet music sales with a market share of more than 70 percent (Shannon, 2006). The inclusion of the RSS aggregation into the iTunes Music Store, therefore not only facilitated the process of consuming podcasts but also "opened the floodgates for millions of iTunes users to easily locate and download podcasts" (Sullivan, 2018, p. 38). Moreover, iTunes version 4.9 influenced the interface of many later podcatchers and the way users search for podcasts. To make the iTunes podcatcher software easily navigable for users, numerous elements from the iTunes music store were taken over, such as "a search bar interface to facilitate keyword searches, a list of 'Top Podcasts' indicating popular or most downloaded shows, and thematic categories of podcast content" (Sullivan, 2019, p. 3). Apple also introduced cover art for podcasts, inspired by the album covers for music from the iTunes Music Store, to make them more easily identifiable

(Sullivan, 2019, p. 3). In 2006, Apple took it a step further by *adding a* podcast studio to its popular music creation software "Garageband" that included more than 200 effects and jingles, automatic ducking[4] for audio, a speech enhancer and an integration with iChat for remote interviews (Boutin, 2006). While iTunes 4.9 made it easier to consume podcasts, GarageBand 3 facilitated podcast creation. Both software considerably reduced the previous complexity of podcasts, however, the increase in podcast listeners was comparatively small. In 2006, only eleven percent of the U.S. population ever listened to a podcast, and in 2007 this figure increased by only two percent to 13 percent of the American population[5] (Pew Research Center, 2019a). According to Sullivan this limited growth in podcast listeners was "due to the relative niche status of portable digital audio players like iPods and the necessity for those devices to be connected to computers in order to access new downloaded content" (Sullivan, 2018, p. 38). Despite the iPod's high sales figures, only 20 percent of the U.S. population owned an iPod or MP3 player in 2006 (Madden, 2006) and even in 2008, more than two-thirds of podcast users reported listening to podcasts on a desktop computer as opposed to a portable device (McClung & Johnson, 2010, p. 85). This indicates that podcasts were either still too complex for the average consumer or that they lacked in relative advantage, observability, or compatibility[6].

[4] Ducking temporarily lowers the level of one audio signal in the presence of a second signal and is commonly used to lower background music anytime a person speaks.
[5] It should be noted that for this point in time there are not yet figures for regular podcast consumption (e.g. monthly, weekly). The number of regular podcast users is therefore probably below the 11 and 13 percent.
[6] Podcasts were and are free; software to play MP3 files could be downloaded for free or was pre-installed on the computer. Thus, trialability for listeners was high.

In 2007, Apple launched the first-generation iPhone, which was neither the first smartphone[7] nor did it have many of the features common today like third-party apps or fast mobile internet connection (Silver, 2018). However, the cultural and technological impact of the first iPhone is undeniable and today more American adults own a smartphone than desktop or laptop computer (Pew Research Center, 2019b). In academic literature, the smartphone's significance for the popularity of podcasts is pointed out by numerous authors. Sullivan, for example, states that "podcasting's rise in popularity is at least partially due to its technological features: its availability, convenience and near ubiquity thanks to global adoption of mobile smartphones" (Sullivan, 2018, p. 39). The iPhone and other smartphones further reduced the complexity of finding and listening to podcasts. Additionally, it increased compatibility, since the smartphone can be used as a mobile phone, camera, or MP3 player. Therefore, separate devices were no longer needed, and the smartphone became an integral part of everyday life. Furthermore, network expansion for mobile Internet and cheaper data plans also enabled streaming podcasts on smartphones while on the move (Domenichini, 2018b, p. 47).

One of the factors that increasingly contributed to the relative advantage of podcasts was the expanding podcast portfolio. Public service broadcasters were among the first to publish radio formats as podcasts, believing it "to better serve their listeners and legitimise license fees in a historical period of slow but constant FM audience decline" (Bonini, 2015, p. 25). In November 2004, the BBC released its first podcast "In Our Time" (BBC, 2014), and in August 2005, NPR published a podcast directory of 174

[7] The title of the first smartphone is attributed to the 1994 IBM Simon Personal Communicator, which was the first commercially available phone with a touchscreen and several features like faxes and email access Aamoth (2014).

programs (NPR, n.d.). However, especially at the beginning, podcasts were mainly repurposed radio shows that were adapted to the podcast format (e.g. cutting out music or program announcements), which allowed broadcasters to reach a broader audience and promote brand identity without requiring significant capital investment. Newspapers also started publishing podcasts very early on. In November 2005, the British newspaper The Daily Telegraph was one of the first newspapers to launch a daily podcast, in which three articles of the latest issue were read aloud. The Guardian and the New York Times soon followed, but many shows were discontinued as podcasts did not generate the expected revenue in terms of traffic and advertising sales (Bonini, 2015, p. 25). The relative advantage of podcasts, therefore, remained relatively small for the listener, since the content only marginally differed from the regular program.

However, podcasts were not only created by large media companies but increasingly by independent producers. These early adopters still have much in common with the innovator type of Adam Curry – they were middle-aged, male, highly educated, and usually had a professional background in media or technology (Markman, 2012, p. 553). The primary motivation to start a podcast was the high need for communication and the desire to make radio without the restrictions of traditional broadcast were strong motivations for early podcasters (Markman, 2012, p. 555). However, as Dedehayir et al. (2017) noted, early adopters also "access resources exogenous to themselves, namely from their networks" and that "early adopters are more likely to adopt innovations when they have more peers recommending the innovation" (Dedehayir et al., 2017, p. 12). Consequently, the second most common reason for starting a podcast was to listen to other podcasts, which can be attributed to both the strong parasocial relationships that are

formed with the host(s) of a podcast and the strong homogeneity in the group of early podcasters. However, Rogers (2003) points out, that while the diffusion process in a homophilic[8] group is relatively fast, this hardly contributes to the diffusion of an innovation in the overall social system. The diffusion of an innovation mainly benefits from heterophilic[9] contacts, so-called weak ties, as they disseminate the innovation to disperse social groups (Rogers, 2003, p. 306). For this reason, it is not surprising that even after technological and content advancements, podcasts were still adopted at a relatively slow pace, both by producers and listeners.

In 2008, 18 percent of Americans had listened to a podcast at least once, theoretically crossing the threshold of early adopters into early majority. Nevertheless, in the same year, only nine percent of the U.S. population listened to a podcast within the past month, which would indicate a more regular use of the medium (Pew Research Center, 2019a). The definition of podcasts points out that seriality is a core element of podcasts, which conversely means that a successful adaptation of podcasts also includes a certain seriality in its consumption. The discrepancy between listening in the past month and having ever listened to a podcast shows that some podcast listeners, however, no longer listen to podcasts. In this case, the adoption of listening to a podcast has failed. Monthly podcast consumption reached the 15 percent threshold to the early majority in 2014 (Pew Research Center, 2019a) – the same year the popular true-crime podcast "Serial" debuted.

[8] "Homophily is the degree to which a pair of individuals who communicate are similar. The similarity may be in certain attributes, such as beliefs, education, social status, and the like." (Rogers, 2003, p. 306)
[9] "Heterophily is the degree to which pairs of individuals who interact are different in certain attributes. Heterophily is the opposite of homophily." (Rogers, 2003, p. 306)

Early Majority and the Power of "Serial" (2014-Today). Serial is an investigative true-crime podcast that was created by the producers of the popular radio program "This American Life" and hosted by journalist Sarah Koenig. The podcast consists of three seasons, with the first season being the most influential. The first season follows Koenig re-investigating the 1999 murder of high-school student Hae Min Lee and the following arrest of her former boyfriend Adnan Syed. It premiered on 21 October 2014 and new episodes were released every Thursday for the following 12 weeks (Berry, 2015, pp. 170–171). Only o month prior to the release of the first episode, Apple's smartphone operating system iOS was updated to version 8.0 and now included a pre-installed podcast app which again facilitated the access of podcasts (Sullivan, 2019, p. 7). By the end of the first season in December 2014, Serial had already reached over 40 million downloads (Roberts, 2014) and by December 2018, all three seasons collectively amounted to more than 420 million downloads (Quah, 2018). In addition, in 2015, Serial was also the first podcast to win a Peabody Award, annually given to honor outstanding achievements in television, radio, and online media (BBC News, 2015).

Serial is a watershed moment in the history of podcasts that "revitalised the attention around the [podcast] medium" (Berry, 2018, p. 22) and increased the observability of podcasts. A survey of the Serial audience found out that 85 percent of the respondents told a friend about Serial and that 45 percent posted about it on social media (Berry, 2015, p. 174). Additionally, listening parties were organized around newly uploaded episodes and the outcome of the episodes was discussed on forums like Reddit. Social media made it visible to even distant acquaintances who was listening to the Serial podcast, and the media coverage showed how successful Serial was among the general

population. The high media presence also made people aware of Serial who had previously been unfamiliar with podcasts; through its media exposure, Serial has carried podcasting from the homophilic niche of audio enthusiasts to the critical mass of the heterophilic mainstream. From that moment the innovation of podcasts diffused at an exponential rate. While monthly podcast listening increased by only 6 percent from 2008 to 2014, it experienced a strong increase in the years following Serial, from 15 percent monthly listeners in 2014 to 32 percent monthly listeners in 2019 (Pew Research Center, 2019a). The success of podcasts could have ended after the first season of Serial, but the largely speech-heavy long-form medium struck a nerve, and so after Serial ended, more and more people were looking for similar content.

Since 2012, a growing number of successful public radio podcasts (e.g. 99% Invisible) abandoned traditional radio distribution and financed themselves through their listeners via crowdfunding (Bonini, 2015, p. 25). Furthermore, an increasing number of amateur and professional podcasts came together to form networks to increase advertising revenue and to expand their audience by cross-promoting other shows on the same network (Sullivan, 2018, p. 36). As a result of this formalization of the podcast market, quality standards and technical aspects such as sound quality and content increased. Serial fans looking for similar content after the season ended, therefore, encountered an increasingly sophisticated podcast corpus that covered a variety of interest areas, but still offered the same voice-heavy and high-quality audio content for which they enjoyed Serial.

The growing number of listeners makes podcasts increasingly attractive for the advertising market. While advertising revenue from podcasts amounted to $169 million

in 2016 (Internet Advertising Bureau, 2018), by early 2021, advertising revenue has reached the $1 billion mark (Internet Advertising Bureau, 2020). Podcasts are attractive to the advertising market for two reasons. First, podcast listeners show a higher tolerance for podcast advertising, since they are more aware that advertising is necessary to keep the show in production (McClung & Johnson, 2010, p. 93). Thus, 54 percent of the podcast audience consider buying from the advertised brand, while 39 percent remain unaffected and only 7 percent see advertising as a disruptive factor with a negative effect on the brand image (Edison Research, 2019b). Second, the typical podcast listener is part of an attractive target audience. Over 40 percent of podcast listeners have an annual household income over $75,000 and nearly half of the listeners fall into the advertising-relevant 18-to-34 age group (Edison Research, 2019b). For producers, podcasting thus not only has the relative advantages of great creative freedom and relatively simple and inexpensive production but is increasingly becoming a source of revenue. While podcasts are already a popular medium for media consumers, the recent growth in the number of podcast formats shows that podcasting is also an increasingly attractive medium for media producers (Misener, 2020).

The currently most significant development for podcasting is "platform enclosure" (Sullivan, 2019, p. 6), meaning that podcatchers increasingly offer exclusive content for paid subscription, similar to services like Netflix. Since the RSS feed is essentially free of charge and accessible for all Podcatcher software, platform-exclusive podcasts are increasingly hosted on the platform's own servers and streamed from there. "As podcasting becomes less dependent on the open RSS standard for distribution […], podcast directories and streaming platforms are aiming to shift distribution away from

open infrastructures and toward their own services to maximize the 'winner take all' functions of platforms." (Sullivan, 2019, p. 7) The most aggressive moves in favor of platform enclosure have thereby been made by music streaming giant Spotify. In 2019, Spotify bought two podcasting companies for $337 million - podcast production company Gimlet Media, which created shows like "Homecoming", "StartUp", and "Reply All" and service provider Anchor FM, which provides the tools for podcast creation, publishing, and monetization for more than 40 percent of the industry's new podcasts (Spangler, 2019). In 2020, Spotify secured an exclusive licensing deal worth an estimated $100 million with "The Joe Rogan Experience", which is one of the longest-running and most popular podcasts and has according to host Joe Rogan over 190 million monthly downloads (Koetsier, 2020). Apple is also trying to follow suit with the production of its own daily news podcast, which is exclusively available on Apple News and Apple Podcasts and is intended to build on the success of the New York Times' news podcast The Daily (Carman, 2020a).

Today, 32 percent of the American population listens to a podcast at least once a month and 22 percent listen weekly (Pew Research Center, 2019a). Worldwide, an average of 31 percent now listen to a podcast every month (Newman et al., 2020, p. 26). Podcast search engine Listen Notes indicates that currently (as of March 2021) there are more than 2 million podcast shows with over 96 million episodes, however, data also indicates that there is a substantial amount of non-active or abandoned shows (Listen Notes, n.d.). Despite the nearly exponential growth in listener numbers and podcast shows in recent years, podcasting is still in the early majority stage, and the recent coronavirus lockdowns of spring 2020 caused a dent in the upwards trend resulting in a

decline in podcast listening of up to 20 percent, mainly due to the decrease in commuting to and from work (Newman et al., 2020, p. 26). It remains to be seen what long-term effects the corona pandemic will have on the podcast market, just as it is currently uncertain if and when podcasts will reach the late majority.

2.3 Podcast Audience

As the previous chapter on the historical development of podcasts has already illustrated, more and more people are becoming active podcast listeners. Podcast as a new medium, due in part to the growing advertising market, has been increasingly examined by market research institutes such as Edison Research or Pew Research Center. This chapter considers the demographic data of the podcast audience. The typical listening behavior of podcast users will also be examined, and the reasons why users listen to podcasts and why they enjoy them will be addressed.

2.3.1 Demographics

According to Edison Research (2020), around 75 percent of the U.S. population over the age of 12 years say they are familiar with podcasting, and 55 percent state that they have listened to a podcast at least once. About 37 percent of the population say they have listened to a podcast within the last month and 24 percent have listened within the last week (Edison Research, 2020). Comparing monthly podcast users worldwide, the U.S. is one of the countries with the most podcast listeners, and only Spain (41%) and Ireland (40%) have a higher percentage of people regularly consuming podcasts (Newman et al., 2020, p. 26). It is noteworthy that in countries with strong public broadcasting fewer people are listening to podcasts. Among the surveyed countries, France (26%), Japan (24%), Germany (24%), and the United Kingdom (22%) have the

least number of regular podcast listeners (Newman et al., 2020, p. 26). McHugh attributes this reluctance to podcasts primarily to the countries' existing funding models and high quality of public broadcasters. In such cases, due to license fee funding, many public broadcasters air little or no advertising, with the result that advertising in podcasts is considered annoying. Additionally, in countries like Germany or the United Kingdom, journalistic and entertainment content is more separated, so story-telling formats such as those popular in the U.S. are perceived as inferior (McHugh, 2016, pp. 76–77).

About 39 percent of U.S. men and 36 percent of U.S. women reported listening to a podcast within the last month, which means that 51 percent of monthly U.S. podcast listeners are male and 49 percent are female (Edison Research, 2020). In the last few years, the number of female podcast users increased more than the number of male listeners, which could be attributed to the reduction of technical barriers, for example, through the addition of podcasts to streaming services (Edison Research, 2019c). Furthermore, podcasts are particularly popular among the younger U.S. population: 49 percent of the 12-34-year-olds, 40 percent of the 35-54-year-olds, and only 22 percent of the people over 55 years have listened to a podcast within the last month. Conversely, this means that almost half of the monthly podcast users are in the age range of 12 to 34 years, followed by one-third of monthly podcast listeners being between 34 to 54 years and around 20 percent of monthly podcast consumers being over 55 years (Edison Research, 2020). One reason for the age discrepancy might be the technical hurdles for many elderly people, such as the possession of an internet-enabled audio player or the ability to independently search for podcasts. However, another reason for the younger generation's affinity for podcasts could be that many young people no longer feel

engaged by radio content. In 2006, Berry already describes the youth's renunciation of radio caused by numerous advertisements, interchangeable presenters, and mainstream music (Berry, 2006, pp. 148–149). Even after more than ten years, little has changed regarding the criticism of radio; participants in the study by Perks and Turner still perceive music radio as "boring" and "repetitive" and in turn appreciate podcasting for its storytelling and niche content (Perks & Turner, 2019, 103). Additionally, the on-demand character as well as the customizability of the podcast consumption appeal in particular to a younger, online-savvy generation (Sullivan, 2018, p. 39).

Approximately 63 percent of American monthly podcast listeners are white, 11 percent are African American, 11 percent are Hispanic, 5 percent are Asian and 9 percent stated "Other", which corresponds roughly to the proportion in the total U.S. population. Moreover, podcast listeners tend to have a higher education than the general population. Overall, 80 percent of monthly podcast listeners have at least some form of a college degree, compared to only 68 percent of the overall U.S. population. Additionally, the number of monthly podcast listeners with a grad school degree or similar is much higher (28%) and the number of podcast listeners with a high school or less is much lower (20%) than in the overall population (20%; 32%) (Edison Research, 2019b). One possible reason therefore could be that many podcast users state a strong motivation to learn as a reason for consuming podcasts (Edison Research, 2019b). Moreover, many podcast producers also have a higher level of education. In a study on the motivation of podcast producers, Markman and Sawyer found that 40 percent of their respondents had a bachelor's degree and 33 percent had a graduate degree (Markman & Sawyer, 2014, p. 26). It is therefore feasible that people with a lower level of education do not feel

thematically or linguistically addressed by many podcasts, e.g. because numerous technical terms are used, or because the content of the podcast is not related to the everyday experiences of a person who did not go to college. Possibly connected to the higher level of education is that monthly podcast listeners are also more likely to be employed full-time and have a higher annual income than the general U.S. population. Over 51 percent of monthly podcast listeners are employed full-time and 17 percent work part-time, compared to only 44 percent and 12 percent in the overall population[10], which is not surprising, considering that the majority of podcast listeners are in the working-age group (Edison Research, 2019b). Also, 41 percent of monthly podcast listeners have an annual household income over $75,000 as opposed to only 29 percent of the total population (Edison Research, 2019b).

In summary, regular podcast listening is becoming increasingly popular in the United States and around the world, although growth is weaker in countries with strong public broadcasting. The average U.S. podcast listener is characterized by being relatively young, well-educated, and having a high annual income. Differences between gender or ethnic groups are decreasing.

2.3.2 Listening Behavior

As mentioned earlier, 37 percent of the U.S. population over the age of 12 years have listened to a podcast within the last month and 24 percent listened to a podcast within the last week (Edison Research, 2020). On average, the weekly podcast user listens to six different shows; however, 51 percent listen to three shows or less and 12

[10] However, it is worth mentioning that only 8 percent of podcast listeners are retired, whereas in the general population this figure is 18 percent.

percent listen to eleven or more shows each week (Edison Research, 2020)[11]. In 2020, weekly podcast users also listened for an average of 6 hours and 39 minutes, compared to only 4 hours and 27 minutes in 2014 (Edison Research, 2020). However, it is important to note that this figure may be strongly influenced by "power listeners", who are particularly common among weekly listeners (Westwood One, 2019). Similar to the average number of shows, a considerable proportion of regular listeners may therefore listen less. The average length of a podcast episode is 41 minutes, with a trend towards slightly shorter episodes in recent years. Gaming and film-related podcasts tend to have the longest episodes (over 50 minutes), whereas business, education, and kid-focused podcasts have shorter episodes (around 15 to 20 minutes) (Misener, 2019).

Since podcast users actively select the topic and situation for their podcast listening, there is little reason to quit listening halfway through. As a result, 52 percent listen to the entire podcast and 41 percent listen to more than half of the podcast episode (Edison Research, 2019b). Additionally, more than three-quarters of users listen to podcasts within two days after downloading an episode: 47 percent listen to the podcasts within 24 hours and 31 percent listen to the podcasts within 48 hours of downloading. Only 3 percent listen to a podcast more than a week later after it was downloaded (Edison Research, 2019b). The preferred time for consuming podcasts depends strongly on the topic. Most news podcasts are listened to in the evening to recap the day; true crime podcasts are listened to primarily during daylight. Nevertheless, the most popular times for listening to podcasts in the U.S. are 7 to 8 am and 9 to 10 pm (Amburgey, 2019). The

[11] However, it should be noted that not every podcast is published daily or weekly. Many podcasts are published on a bi-weekly or monthly basis. The number of shows listened to each week is therefore highly dependent on the publication rhythm. Additionally, this statistic does not allow any statement about the number of episodes listened to per show.

most popular podcast topics or genres in the U.S. are comedy (36%[12]), news (23%), society and culture (22%), sports (15%), and true crime (12%). The least listened to categories are music (4%), education (3%), and technology (3%) (Edison Research, 2019a).

Portable devices are the preferred choice for podcasting consumption, over 65 percent of monthly podcast users listen on a smartphone or tablet, while only a fourth listen on a computer or laptop, and 10 percent listen via a smart speaker (e.g. Amazon Alexa or Google Home) (Edison Research, 2019b). In comparison, in a 2008 study, more than two-thirds of users reported playing podcasts on a desktop computer (McClung & Johnson, 2010, p. 85). Around 41 percent of monthly podcast consumers access podcasts through Apple Podcasts (iTunes/Apple Podcasts), 33 percent of listeners use Spotify for podcasts, and 32 percent of monthly users access podcasts through Google Podcasts (Google Play/Google Podcasts). Besides, podcasts are often also played via the app or website of the producer or radio station. Dedicated podcast player apps are not so widespread; only 10 percent listen via the most popular app "Podcast Addict", and apps like "Overcast" and "Stitcher" have even smaller shares (Westwood One, 2019).

Despite the "mobile-ness" and portability of podcasts, the most popular location for listening is at home. Over 90 percent of monthly podcast users have listened to a podcast at least once in their homes. The second most common place for listening is while commuting. About two-thirds of users have consumed a podcast in their car and over one-third have listened while riding public transport. In addition, 49 percent have

[12] This percentage means that 36 percent of weekly podcast users have listened to a comedy podcast within the last week. For reasons of better readability, only the percentage has been given here for the other categories.

used podcasts when they are walking, 43 percent listened to them at the gym out and 37 percent have ever listened to a podcast at work (Edison Research, 2019b). Moreover, podcasting is a popular companion for multitasking. The most popular activities are: doing housework or chores (59%[13]), driving (52%), relaxing before going to sleep (51%), cooking or baking (50%), walking outside (46%), running or exercising (44%) and riding public transportation (33%) – which corresponds roughly to the most popular locations mentioned previously (Edison Research, 2019b). However, the most common response from monthly podcast listeners is that they do nothing besides listening to the podcast (70%) (Edison Research, 2019b). However, it should be pointed out that both, the location and activity statistic, do not capture any regularity or duration, which would be more insightful regarding more established patterns of listening behavior.

To summarize, listening behavior is strongly influenced by a user's individual preferences, however, general trends and tendencies can be identified. On average, the U.S. user listens to 6 different shows and spends around 6.5 hours per week listening to podcasts. Since users usually consciously decide which podcast they want to hear in which situation, they are very likely to listen to a podcast within 48 hours after downloading and nearly all users listen to a podcast completely or at least to a large extent. The most popular podcast topics in the U.S. are comedy, news, society and culture (which often includes true crime), and sports. More than half of the users consume podcasts via a portable device and the majority of the audience uses Apple, Google, or Spotify podcast services to listen. Most users listen to podcasts at home or while

[13] This percentage means that 59 percent of monthly podcast users have at least once done homework or chores while listening to podcasts. For reasons of better readability, only the percentage has been given here for the other activities.

commuting. Besides solely listening to a podcast, many users also listen while multitasking (e.g. doing housework, cooking) or as a way to relax before bedtime.

2.3.3 Reasons for Podcast Listening

According to Edison Research, nearly three-quarters of monthly podcast listeners state that learning new things is one of the main reasons they listen to podcasts. Likewise, for 71 percent of podcast users, entertainment is a major reason for listening to a podcast. The third most common reason, given by 60 percent of monthly users, is wanting to stay up-to-date with the latest topics (Edison Research, 2019b). However, Perks and Turner (2019) point out in their qualitative study on the uses and gratifications of podcasts that podcasts are mostly used as a learning opportunity while multitasking, to make boring tasks (e.g. housework or commuting) more enjoyable and let time pass quicker. Podcasts even become such an essential part of a task that it is considered a waste of time if one could not listen to a podcast simultaneously (Perks & Turner, 2019, pp. 107–108). Therefore, it is not surprising that the three main reasons why people enjoy podcasts are related to the multitasking aspect: 87 percent of regular podcast users say they enjoy listening to podcasts because they can do other things while listening, 80 percent of listeners enjoy podcasts because they are portable and 78 percent of podcasts users say that they enjoy the possibility to listen wherever they are. On the contrary, only 59 percent of listeners enjoy listening to podcasts because it makes them feel smarter, making it the least popular reason for enjoyment (Edison Research, 2019b). It can therefore be concluded that podcast consumption is usually preceded by an activity that does not demand a high cognitive involvement. Thus the actual main reason for listening to podcasts is to make a mundane task more interesting and educational.

However, podcasts are not only used to be more productive but also for relaxation. Over half of the regular listeners say that relaxation is an important reason for podcast consumption (Edison Research, 2019b). Similarly, Perks and Turner found out that many of their respondents used podcasts as a bedtime story to help them unwind from the day (Perks & Turner, 2019, p. 104), which then also reflects in 9 to 10 pm being one of the most popular times for podcast consumption (Amburgey, 2019). Moreover, less than half of the regular listeners stated that feeling inspired is an important reason for podcasts, and for at least 37 percent of podcast users, a major reason for listening is to escape from everyday life.

Only 24 percent of podcast users listen to podcasts for companionship, but over 76 percent of podcast listeners enjoy podcasts because of their relationship with the host(s) of the show (Edison Research, 2019b). The factors that encourage a parasocial relationship with the podcast host(s) include "the frequency or regularity of contact, opportunities to interact with hosts through social media or other avenues (thus creating the possibility for a two-way relationship), the conversational quality of the podcast, similarities between listener and host, and host sharing of personal information" (Perks & Turner, 2019, p. 109). The more frequently a podcast is listened to, the stronger the relationship with the host(s) is. Similarly, more interaction opportunities in social media increase the bond with a host. However, individual hosts are more likely to engage with listeners than their show accounts, which use social media more often for marketing (Spinelli & Dann, 2019, pp. 50–60). The discussion quality of the podcast means that the listeners, especially when there are several hosts or panelists, feel more like they are part of a conversation rather than being talked to and for many listeners, this situation feels

like a discussion they have with friends. In addition, the sharing of personal information encourages a sense of intimacy, and having experiences in common enhances the feeling of connectedness. People also describe that they feel less alone knowing that the podcast hosts have similar struggles and experiences. For many listeners, these parasocial relationships are so important that they even listen to episodes where the topic does not interest them (Perks & Turner, 2019, pp. 109–110).

Lastly, there is the question of why people do not listen to podcasts. The reasons for non-consumption are manifold, however, the most common reasons given by people who are familiar with podcasts but do not listen to them are that podcasts are not for them (75%), that they do not have enough time to listen to podcasts (51%) and that podcasts do not provide them anything they cannot already find elsewhere (49%) (Edison Research, 2019b). Technical barriers and being overwhelmed by the medium are less relevant reasons, which in turn shows that the majority of non-listeners consciously decide against podcasts.

In summary, the most important reasons why podcasts are listened to and enjoyed are that they provide educational and entertaining content for less cognitively demanding multitasking, that they help to relax and escape everyday life, especially before bedtime, and that they encourage parasocial relationships and foster feelings of connectedness. Most non-listeners consciously decide against podcast consumption, whereby the most common reasons are no interest in the medium or a lack of time for listening.

2.3.4 Podcast Audience Outside the U.S. - Example Germany

Most of the research regarding podcasts and the podcast audience is conducted in the U.S., which is not surprising considering that, according to podcast search engine

Listen Notes, around 70 percent of all podcasts are produced in the United States (Listen Notes, n.d.). However, podcasting is a global phenomenon, which is why it is increasingly necessary to look beyond U.S. borders. Following Brazil and Indonesia, Germany is the country with the fourth-largest podcast production (Listen Notes, n.d.) and is also the only non-English speaking country in which the Infinite Dial study was conducted (besides the United States, Australia, Canada, and South Africa) (Edison Research, 2019a).

In Germany, podcasts were adapted relatively early and discussions focused, similar to Berry (2006), primarily on the deliberative potential of podcasts and the distinction to radio. In addition, the early German debate about podcasts was strongly focused on Bertolt Brecht's radio theory and thus how podcasts blur the lines between individual communication and mass communication (Thomas Pleil, 2006, pp. 177–182). Moreover, the early German debate was much more skeptical about podcasts, viewing them as more of a niche medium due to the dependence on MP3 players and the strong dominance of public broadcasters in the German market (Thomas Pleil, 2006, pp. 188–190). Current German literature on podcasts is more optimistic, but still heavily influenced by the comparison to the United States. Lührmann (2019), who examined German political podcasts, notes that public broadcasters still reuse many of their radio formats, however, due to the German podcast renaissance around 2016[14], more and more independent podcasts are produced (Lührmann, 2019, pp. 34–42). Moreover, recent podcast trends, such as increasing commercialization, professionalization, and platform closure, can also be found in the German podcast market (Lührmann, 2019, pp. 34–35).

[14] Lührmann is referring to Bonini's proclaimed "Second Age of Podcasting" (Bonini, 2015, p. 25), which is occurring in Germany similarly to the U.S., but with a slight time lag.

While the German market has quickly adapted to the American standards, however, audience statistics still lag behind the American figures. In 2019, 51 percent of the American population has listened to a podcast, yet only 33 percent of the German population has done so. Regarding monthly podcast listening, almost twice as many people in the U.S. (33%) regularly listen to a podcast, compared to Germany (17%) (Edison Research, 2019a). Although German listener numbers are lower than the U.S. in all age groups, there is a considerable decrease in the age group above 55 years (Edison Research, 2019a). Similar results are also found in the Reuters Institute Digital News Report 2020: 24 percent of the German population over the age of 18 listen to a podcast at least once a month. Yet more than half (54%) of the 18-24-year-olds listen to podcasts monthly, while only 13 percent of those over the age of 55 do so (Hölig et al., 2020, p. 50). Therefore, regular podcast listening in Germany is more widespread among younger segments of the population and declines with increasing age.

Similar to the U.S., no notable difference between genders is found - 52 percent of German monthly podcast listeners reported being male and 48 percent reported being female (Edison Research, 2019a). Furthermore, German podcast listeners are on average more educated and have a higher annual household income than the overall population. However, due to the different education systems in Germany, these figures can only be compared with those from the U.S. to a limited extent. Only 11 percent of German monthly podcast users have only a secondary leaving certificate or less, compared to 36 percent in the general population; whereas 42 percent of monthly podcast users have a polytechnic degree, compared to only 29 percent in the general population (Edison Research, 2019a). The currency exchange rate also slightly distorts the comparability

between German and U.S. households. Only 24 percent of German monthly podcast listeners have an annual household income over €75,000, compared to the 41 percent of American monthly podcast users earning more than $75,000 and the 19 percent in the general German population (Edison Research, 2019a).

In 2019, only 10 percent of the German population have listened to a podcast within the last week, compared to 22 percent of U.S. citizens who listen to podcasts every week (Edison Research, 2019a). German weekly podcast consumers listen to an average of five podcasts per week, although similar to the U.S., the majority (60%) listen to only one to three podcasts weekly, whereas 11 percent are "power listeners", that listen to eleven or more podcasts. On average, German podcast consumers listen to podcasts for 3 hours and 49 minutes per week - nearly three hours less than the U.S. average (Edison Research, 2019a). Furthermore, it is much more common in Germany to listen to less than half of the podcast. While only 7 percent of the regular podcast listeners in the U.S. listen to less than half of the podcast, 31 percent listen to less than half of the podcast in Germany (Edison Research, 2019a). About 55 percent of German podcast users listen to podcasts on their smartphone, while 22 percent use a computer and 11 percent use a tablet (Edison Research, 2019a). Similar figures can be found in Domenichini's study of the German podcast audience - 73 percent of German listeners consume their podcast content via smartphone, while 61 percent listen via laptop and 53 percent via computer (Domenichini, 2018b, p. 47). These figures show that although smartphones prevail in usage, a relatively large proportion of podcasts are still listened to on laptops and computers. To access podcasts, 34 percent of German listeners use apps, primarily iTunes. One-fourth of the German listeners use streaming services such as Spotify and 15

percent of listeners use music platforms such as SoundCloud (Domenichini, 2018b, p. 47). The most popular place for listening to podcasts is at home (63%). Listening to podcasts in the car (10%), at work (8%), and on public transport (8%) are considerably less popular (Edison Research, 2019a). More than half of German listeners consume podcasts in their free time and free of distractions, which Domenichini attributes to the speech-heaviness of podcasts that requires increased attention (Domenichini, 2018b, p. 47). About one-third of German listeners use podcasts on the go and in waiting situations (Domenichini, 2018b, p. 47). Unlike the U.S., multitasking and commuting seem to play a lesser role in Germany, however, this is might be because in the U.S. survey multiple responses were allowed, while in Germany only the most common location and activity were taken into account.

According to the German Federal Association for Information Technology, Telecommunications and New Media, Bitkom e.V., the most popular categories among German podcasts are news, (53%), comedy (44%), sports and leisure (43%), health and medicine (37%), music (37%), film and television (34%), politics (34%) and computers and technology (33%)[15] (Krösmann & Klöß, 2020). For German podcast listeners, an average of 18 minutes is the ideal length for a podcast. Two out of five listeners state that a podcast should be between 10 and 20 minutes long and 40 percent state they favor formats with a length of 20 to 30 minutes. Only 8 percent think a podcast should ideally be between 30 and 60 minutes (Krösmann & Klöß, 2020). The U.S. podcasts, with an

[15] In 2020, Covid-19 was the most popular topic (83%) among German podcast listeners (Krösmann & Klöß, 2020). Although this is an isolated topic, it shows that podcasts are an important source of information for many Germans.

average length of 41 minutes (Misener, 2019), might therefore be considered too long by a majority of German podcast listeners.

To summarize, the U.S. and German podcast history and audience are similar, but podcasting is still not as common in Germany as it is in the United States. Contrary to the U.S., podcast listening has not yet become an everyday routine in Germany, in part due to the strong presence of public broadcasters. Nevertheless, podcasts are becoming increasingly popular in Germany among both producers and consumers.

Chapter 3: Methodology

After discussing the theoretical aspects of the thesis, this section will discuss the methodological approach. Given the lack of academic and theoretical knowledge in the field of podcast production, the knowledge sought in this thesis shall be derived from qualitative, semistructured interviews and be analyzed using the Grounded Theory.

3.1 Semistructured Interviews

The semistructured interview is the "workhorse of qualitative research" (Packer, 2010, p. 43) and refers to all forms of qualitative data collection that are conducted using a pre-formulated interview guide (Misoch, 2019, p. 65). The interview guide is the central element of the semi-structured interview and is used to provide a thematic framework, list all relevant topics, structure the communication process and improve the comparability of the data obtained. The interview guide can be designed with varying degrees of structuring and can include elements such as prompts, explicitly pre-formulated questions, keywords for loosely formulated questions, and/or stipulations for handling the interaction in certain phases of the interview (Helfferich, 2019, p. 670).

The interview guide must follow general principles of qualitative research – the most important being openness regarding both the form of the interview and the way it is conducted (Misoch, 2019, p. 67). For qualitative research, openness means that no pre-determined hypotheses are tested and that the interviewee should be given the greatest possible freedom in their responses. Restrictions on the openness of the interview guide must be motivated by research interest or research pragmatics; the more focused the research interest is on specific information, the more structured it can be, and the more specifications are warranted (Helfferich, 2019, pp. 672–674). Furthermore, it must be

taken into account that data is obtained by means of communication with the interviewee, which means that the interview must be adapted to the interviewee's register and level of knowledge (Misoch, 2019, p. 67).

Typically, an interview guide consists of various topic blocks, for which two to three main questions are noted that serve as central interview stimuli for the respective topic section. The main questions are usually compulsory questions that are used similarly in all interviews. Expansion or follow-up questions serve to provide further detail and are mainly used if the main questions have not been answered exhaustively (Bogner et al., 2014, p. 28). The questions can be either deductive, which is developed from the existing literature, or inductive, meaning they are developed independently by the researcher (Misoch, 2019, p. 68). To give the interviewee as much freedom as possible in their answers, the questions should be open-ended, and not phrased as yes-no questions, for example.

The semi-structured interview usually begins with an introduction in which the interviewee is informed about the study and its objectives as well as about the confidential treatment of the data. In addition, the researcher often inquires the demographic data such as age, occupation, and educational background of the interviewee (Bogner et al., 2014, pp. 59–60; Magnusson & Marecek, 2015, pp. 55–56). In order to ease the entry into the interview situation, the interview often starts with a broad opening question. The opening question should be easy to answer and should lean towards a positive or affirmative answer, meaning that sensitive or difficult issues are not yet discussed (Bogner et al., 2014, p. 60; Misoch, 2019, p. 68). During the main part of the interview, the interviewer asks the designated main questions, often adapting the

order of the questions to the flow of the conversation with the particular participant (Magnusson & Marecek, 2015, p. 47). In the final wrap-up stage, the interview is concluded and the interviewee is led out of the interview situation. In this step, the interviewee should be given the chance to reflect on the interview. The interview is then concluded by thanking the interviewee for taking the time (Bogner et al., 2014, p. 61; Magnusson & Marecek, 2015, p. 57).

In order for the generated interview data to be transcribed and analyzed later, the interview is usually recorded on video or audio. Additionally, impressions of the interview situation and atmosphere should be documented after the interview. Only if the interviewee refuses to be recorded and no equivalent interview partner is available as a substitute, the interview is recorded by hand as best as possible (Bogner et al., 2014, pp. 39–40).

3.2 Grounded Theory

Grounded Theory is a common approach in qualitative research and "is appropriate to use when there is a lack of knowledge or theory of a topic […], where existing theory offers no solutions to problems […] or for modifying existing theory" (Bluff, 2005, p. 147). As the aim of this thesis is to generate a theory about the production processes and practices of German podcasters and to extend the existing literature on podcasting, Grounded Theory is considered a suitable methodology for data analysis.

Grounded Theory was first developed in the 1960s by the American sociologists Anselm Strauss and Barney Glaser, who described it in distinction to deductive, hypothesis-testing methods as the "discovery of theory from data" (Glaser & Strauss,

1967, p. 1). Although Glaser and Strauss went increasingly separate ways in the development of Grounded Theory, their writings still greatly influence the current understanding of Grounded Theory (Bluff, 2005, pp. 148–149).

Understanding Grounded Theory, however, is complicated, as it is built less on a specific definition and more on a variety of different concepts. At its core, "Grounded Theory is a methodology, which is characterized by the iterative process and the interrelatedness of planning, data collection, data analysis, and theory development" (Vollstedt & Rezat, 2019, pp. 82–83). This means that data collection, data analysis, and theory development are not sequential, completed processes and instead continuously influence each other.

For data collection, the concept of *Theoretical Sampling* is of primary importance and is defined as "the process of data collection for generating theory whereby the analyst jointly collects, codes, and analyzes his data and decides what data to collect next and where to find them" (Glaser & Strauss, 1967, p. 45). For the actual object of research, theoretical sampling means that the participants or objects of a study are not predetermined, but are chosen based on previous analysis so that the phenomenon of interest is studied in as many different contexts as possible. Theoretical sampling does thus not aim for statistical representativeness, but at conceptual representativeness (Böhm, 1994, p. 125).

Once the first empirical data have been generated, for example, using a semi-structured interview, these data are subjected to data analysis. Here, the rationale of Grounded Theory is the abstraction of the data by "bring[ing] out underlying uniformities and diversities" (Glaser & Strauss, 1967, p. 114) by means of constant comparison.

Central to this *Constant Comparative Method* are the different coding processes: *Open, Axial,* and *Selective Coding*. These processes are not clear-cut or necessarily sequential, but rather represent different ways of working with the data that can be combined and between which the researcher can alternate as needed (Vollstedt & Rezat, 2019, p. 86).

Open Coding is usually the first step in approaching data and refers to "the analytic process through which concepts are identified and their properties and dimensions are discovered in data" (Strauss & Corbin, 1998, p. 101). Open coding involves breaking down the material into smaller units. A code is then used to abstract and describe the core idea of that unit. When wording codes, the researcher can use their own words, or use in-vivo codes, which are phrases taken directly from the data. Codes with similar meanings are linked together to form categories (Bluff, 2005, p. 154; Vollstedt & Rezat, 2019, p. 86). During coding, possible variations or manifestations of a phenomenon often become more apparent. If an aspect or characteristic can be arranged on a continuum, it is called a dimension or dimensionalization (Böhm, 1994, p. 129). The coding process is regularly supplemented with the writing of memos. In the memos, theoretical and methodological considerations are noted that go beyond code or category naming and serve to later structure the analysis (Böhm, 1994, p. 129).

Axial Coding follows open coding and is "the process of relating categories to their subcategories" (Strauss & Corbin, 1998, p. 123), which "allows a conceptual framework to emerge" (Bluff, 2005, p. 154). Axial coding involves making explanations and connections between the codes and categories created in open coding. The coding paradigm is used to find these connections by searching conditions or situations in which phenomenon occurs, the actions or interactions of the people in response to the

phenomenon, and the consequences or results (Strauss & Corbin, 1998, p. 127). Not all aspects identified in the material have to be examined, but those which - according to the preliminary state of the analysis - can be assumed to be relevant for clarifying the research question. This way, a series of vague hypotheses is implicitly developed, which will be tested in the further course of the data analysis (Böhm, 1994, pp. 130–131).

Selective Coding is the last step and represents "the process of integrating and redefining the theory" (Strauss & Corbin, 1998, p. 143). Selective Coding is similar to axial coding but performed on an even more abstract level (Vollstedt & Rezat, 2019, p. 89). It involves linking categories and subcategories developed in previous coding cycles into a core category, which ultimately provides the central theory of the research (Böhm, 1994, pp. 134–136). Thus, the emerging theory represents the social reality as perceived by the participants. Its quality should therefore not be evaluated by standard criteria such as "objectivity, reliability, and validity, but according to criteria such as credibility, plausibility, and trustworthiness." (Vollstedt & Rezat, 2019, p. 83).

The process of data collection, data analysis, and theory development is repeated until *Theoretical Saturation* is reached, which refers to „[t]he point in […] development at which no new properties, dimensions, or relationships emerge during analysis" (Strauss & Corbin, 1998, p. 143).

3.3 Data Collection

The search for suitable interview partners was carried out using the podcast search engine fyyd.de, which offers a comprehensive directory of German podcasts on various topics. Due to the large listing of podcasts, it was also possible to find smaller podcasts that were independent of large German media companies. The decision to contact

smaller, independent podcasts was mainly based on research pragmatics since the contacting of the podcasters could often be done directly and a higher feedback rate was expected. The selection of suitable podcasts was based on the following criteria:

- A podcast was required to have at least 20 published episodes. This number was set by the researcher to filter out beginners since production routines change significantly, especially in the early stages of a podcast.
- A podcast had to be active at the time of the research (May/June/July). Therefore, the date of the last published episode was used; if the date was more than three months behind the research period, the podcast was considered inactive.
- A podcast should be German-speaking and primarily aimed at an audience in Germany. This means that no English-language podcasts were contacted. Austrian and Swiss podcasts were also not contacted if they had a strong local emphasis.
- Interview subjects had to be at least 18 years of age or older. This selection criterion was also explicitly formulated again in the interview request.

Theoretical sampling (Misoch, 2019, pp. 204–206) was used for the podcasts to be contacted, trying to contact as many different thematic focuses and podcaster constellations as possible so that a comprehensive picture emerges. However, with the chosen method of recruitment via interview request, it must be addressed, that the decision for an interview ultimately depends on the podcasters, and therefore not every podcast relevant to the research also found time for an interview. Furthermore, given the time and structural constraints of a master thesis, a certain limitation of the recruitment and interview period was necessary, which is why a podcast count of 15 was considered sufficient for theoretical saturation (Kvale, 1996, p. 102).

Prior to the recruitment of participants, the study was approved by the Ohio University Office of Research Compliance (ORC). Podcasters were contacted via email over the period June 7, 2021, to July 15, 2021. The sent interview request included information about the interview and a link to schedule a Zoom interview via Calendly, so the podcaster could choose their preferred date and time without additional email correspondence. In addition, interview questions were also attached as an attachment to the interview request so that podcasters could better prepare for technical questions, such as what microphone they use and because spontaeneous emotional responses were not required (Bogner et al., 2014, p. 30). This way, a total of 56 podcasts were contacted, of which 15 podcasts agreed to be interviewed.

Due to contact and travel restrictions caused by the COVID-19 virus, interviews were conducted via the videoconferencing tool Zoom. Videoconferencing comes close to traditional face-to-face interviews, and at the same time offers more advantages than telephone or email interviews. An important advantage of videoconferencing is that interviews can be easily recorded, which facilitates later transcription procedures. Furthermore, videoconferencing has the advantage of reaching a geographically dispersed group and minimizing travel costs and time expenses (Misoch, 2019, pp. 177–184).

The first interview took place on June 16, 2021, and the last interview on July 27, 2021; thus, the interview period spanned approximately seven weeks. A total of 19 people agreed to be interviewed[16] (see Appendix B), one of whom had to leave the interview situation early. Eleven participants reported being male and eight participants reported being female; other gender specifications were not reported. Participants are

[16] A total of four podcasts had more than one person agree to be interviewed. These are exclusively duo podcasts where two people produce and record the podcast together.

relatively young - ranging in age from 25 to 38 years - with a mean age of approximately 32 years (*SD* = 31.79). About three-quarters of the participants stated that they have a university degree (*n = 15*); one participant stated a doctorate, seven participants stated a master's or comparable degree, and another seven participants stated a bachelor's or comparable degree. Furthermore, two participants reported a general university entrance qualification, one participant reported a secondary school diploma and one participant did not provide any more detailed information on their educational level. Only one participant reported working full time as a podcast producer, 14 participants reported working full or part-time in podcasting unrelated professions, and four people were students at the time of the interview.

The interviews were conducted by the author of this thesis. Before starting the interview, the interviewer listened to two to three randomly selected episodes of the podcast in order to get a rough impression of the podcast and the interviewee and to adjust questions if needed. The average duration of an interview is 49.5 minutes[17]. First, the participants were informed about the interview process and were asked for consent to record and process the interview data. Once the consent has been obtained, the participants were asked about gender, age, educational and professional background. Thereafter, the main part of the interview was conducted.

Questions for the interview guide (see Appendix A) were mainly derived from the "The Publisher's Guide to Podcasting" (Thorpe, 2019) and production guidelines from podcast hosting website Buzzsprout (Buzzsprout, 2019b, 2019a) and the podcast production blog "The Podcast Host" (Gray, 2021). Additional inductive questions were

[17] The interviews were scheduled to be about 45 minutes long.

developed in close cooperation between the author of this thesis and the supervising committee. The interview questions were phrased open-ended so that they encourage reflective, descriptive, and detailed responses. The questions were then sorted into topic blocks. For example, a guideline discussed the equipment needed to record and edit podcasts. The derived questions are “What recording equipment do you use?” and “What editing equipment/software do you use?” and are grouped into the topic block “Resources”. Similarly, questions concerning the time spent on researching, recording, and editing are grouped into the topic block “Time”. This structure allows the order of the questions to be adapted to the interview partner, but at the same time provides an overview of all aspects of the production which should be addressed in the interview. Overall, 13 topic blocks were developed, which addressed various aspects of podcast production.

The interview was initiated with broad questions, e.g. what were the motives behind producing one's own podcast or where the inspiration for the podcast is taken from. The broad character of the questions served two purposes: first, to encourage the interviewees to give more detailed answers and to avoid discouraging them because they could not answer a question inadequately. Secondly, the introductory questions helped the interviewer to estimate the participants and to generate initial information about the podcast, which could be used later during the interview. After the introductory questions, increasingly more specific questions were asked, such as what recording equipment is used, what editing criteria is chosen, or how much time is spent preparing the podcast. Only towards the end of the interview were podcasters asked about generating revenue, as this is a sensitive topic and trust between interviewer and interviewee had to be

established first. The interview usually ended with a future outlook question, asking podcasters to estimate where their podcast will be in the next five years, as this was a fitting thematic conclusion for interviewees. During the interview, unique characteristics of a podcast or podcaster were spontaneously addressed by the researcher, e.g. reasons for employing an external editor or membership in a podcast network were discussed in more detail.

Once an interview was finished, the audio recording of the interview was transcribed by the researcher. The automatic transcription feature of Microsoft Word 365 was used to roughly transcribe the interviews. Afterward, the computer-generated transcripts were manually corrected and adjusted to the transcription rules. Since the interview was conducted in German, it was also transcribed in German and adapted to common German transcription rules[18]. The transcription rules for this thesis were developed based on Kuckartz and Rädiker (2014, p. 391) and Dresing and Pehl (2015, pp. 28–30) and adapted to improve the translatability of the transcribed texts. The following rules were established for the transcription for this thesis:

- The transcription is verbatim, according to the applicable German standard orthography.
- Language and punctuation are slightly adapted written German (e.g. „so ne Sache“ becomes „so eine Sache“).
- The sentence structure is kept, even if it contains syntactical errors.

[18] Based on the transcription rules used, this transcription is comparable to intelligent transcription in English-speaking countries.

- Stuttering is smoothed or omitted, aborted words are ignored. Word repetitions are only included if they are used as a stylistic device for emphasis (e.g. „sehr, sehr wichtig“).
- Pauses are not indicated, since they can distort the translation.
- Incomplete sentences are marked with the termination character “/”.
- "Affirmative or confirmatory remarks (e.g. „hm“, „aha“, „ja“, „genau“) that do not interrupt the other person’s flow of speech are not transcribed. They are transcribed if they are mentioned as a direct answer to a question.
- Sounds made by the interviewee that support or clarify the statement (such as laughter or sighing) are noted in parentheses.
- Disturbances are noted with the cause in brackets, e.g. (phone rings).
- Incomprehensible words and phrases are indicated as (inc.).
- Brackets are to indicate notes and words not present on the recording and added to the transcript.
- All information that could lead to the identification of a respondent is anonymized.
- The interviewer is marked by “I”, the interviewed person by “P” (for participant). If there are several speakers, a number is added to “P” (e.g. “P1”).
- Every contribution by a speaker receives its own paragraph. Time stamps are added at the end of a paragraph.

The data of the transcribed interviews were analyzed by the author of this thesis using the software MAXQDA and the constant comparative method of Grounded Theory. The analysis process and approach to the data material began with open coding. Since the

interview questions already strongly reflected certain topic areas, the open coding was conducted based on these topic areas, instead of interview by interview. For example, all statements given in response to the question "What recording equipment do you use?" were collected under the code "recording equipment"; statements about "How scripted is the podcast (estimated percentage)?" were coded as "script". This approach had the advantage that commonalities or differences became more evident. As suggested by Zaynel, the transcripts were first coded manually (Zaynel, 2018, pp. 61–62). For instance, when asked how scripted the podcast is, one podcaster remarked that no sentence in the podcast is scripted, but notes are taken. This statement was then coded with the in vivo code "notes". In the following, the manual codes were transferred to MAXQDA, which corresponds to the process of axial coding. In this step, the manual notes were related to each other, that is main codes or sub-codes were identified. Notes that were not suitable codes or that already described a relationship were saved as memos. For example, it became evident that statements within the code "listener feedback" could be divided into general "interaction", "criticism", or "topic suggestions". However, in the case of topic suggestions, it was also identified that viewers can send in topic suggestions autonomously (“proactive”) or be encouraged to do so by the podcaster (“requested”). Thus, a total of 408 codes were formed. In the selective process, it became apparent that the core categories for answering the research question are "pre-production", "recording" and "post-production", and that the category "revenue" assumes a special position. For example, it was realized that script writing, which was cataloged in the interview guide as "During the Recording", actually belonged to the preparation for the recording, which is why script writing was moved to the core category "pre-production".

Chapter 4: Findings

4.1 Pre-production

The pre-production is the first stage in the production of a podcast episode and encompasses all aspects of the preparation for the recording of a podcast episode. Pre-production includes choosing episode topics, (literature) research, recruiting guests, and writing a podcast script.

The pre-production process has the greatest time variance among the interviewed podcasters, who mentioned an average of 30 minutes preparation time to 20-40 hours of preparation time on a podcast episode. Furthermore, compared to recording or post-production, pre-production was usually the most time-consuming part of the podcasters' episode production.

The greatest factor influencing the pre-production time is the writing of a full script, especially if the podcast is a one-host podcast. Most podcasters who reported a high number of hours for the preparation of an episode also stated that the podcast is heavily or completely scripted. For example, Podcaster I pointed out that writing a complete script takes up around one-third of the total preparation time:

> So it can be longer if it's a complete book and I also do research on the Internet and read essays, then it can quickly be two or three working days just reading. And then writing the script? That quickly becomes 20 to 30 pages, which also requires at least one day. (History Podcast 3, 134-137)

Podcasts that needed less preparation time were mostly podcasts whose core format is the interaction with guests and interview partners or the recounting of one's

own experiences. These podcasts are largely built on spontaneous conversations and therefore do not require a lot of pre-written material.

In the midfield of the preparation time were two-host podcasts, which usually examined two different aspects or stories separately within the framework of an overarching topic. This had the advantage that the research effort for both podcasters was reduced and also encouraged dialog between the podcasters due to the reciprocal imbalance in knowledge. In turn, this facilitated an authentic and spontaneous conversation between the podcasters that did not need to be specifically prepared or written down.

However, the amount of time spent preparing the podcast episode varies greatly not only among the different podcasts studied but also within the same podcast. When asked how much time preparation takes on average, most podcasters answered with: “It varies.” Here, the most important factors influencing preparation time were the choice of topic - the more complex the topic or the more material that needs to be examined, the more time is needed for research – and the different formats within the show.

Interviewed podcasters stated that podcast episodes with guests minimize the amount of preparation required by podcasters, as the topic expertise and a higher proportion of the conversation is allotted to the guest. In such episodes, the podcaster usually acts as the interviewer, whose preparation is often limited to introducing the guest and working out interview questions, as Podcaster F points out:

> Or it also happens that I don’t prepare a topic at all and someone is a guest and then I’m actually suddenly an interviewer[.] (History Podcast 2, 99-100)

4.1.1 Choosing an Episode Topic

Selecting a topic for the podcast episode is the first step in the pre-production process. It was stated by the majority of the interviewed podcasters that the selected topic or content of the episode should offer a deeper insight for the listeners. As noted by Podcaster N, a topic should be presented as extensively as possible:

> We didn't just want to be a format that somehow scratches the surface for half an hour and you are basically just as smart as you were before. Right from the start, the idea was: Okay, we want to offer people additional value. Whoever is interested in nursing and understanding the connections, that's what we can offer. (Medical Podcast 1, 97-100)

To find topics for individual episodes, most podcasters kept a topic pool that was a collection of ideas derived from listener suggestions and their own interests. The collection of topics was thereby a continuous process that very often extended into the podcasters' everyday life. The consumption of other media in their free time, such as TV or books, was often cited as a source of inspiration for new podcast topics.

Some podcasters actively asked their audience for new topic suggestions, for example, via social media. But most topic suggestions were initiated by listeners, meaning without a prior call for submissions. Podcasters also reported collecting guest suggestions in their topic pool. However, the topic pool was described as only a loose collection of ideas, hence some topic suggestions later turned out to be unsuitable, such as topics that are too broad or those that provide too little material to fill a podcast episode.

Very few podcasts reported having a set editorial schedule[19] that mandates the pre-planning of episode topics and publication dates over a longer period of time. In most cases, the editorial schedule covered the next two to a maximum of six episodes, meaning an average of one to two months of pre-planning in the case of a one- or two-week publication frequency. However, most podcasters stated that they choose the topic of the episode rather spontaneously and close to the time of recording. While podcasts with an editorial schedule usually published regularly at weekly intervals, podcasts without an editorial schedule usually published bi-weekly or irregularly. However, many podcasters noted that a weekly episode release is considered to be ideal, but often cannot be accomplished due to the large amount of work involved in episode production:

> It's just that, I think, almost everyone agrees that weekly [...] is the best, from a purely marketing and listener loyalty point of view, weekly [publication] makes the most sense. I cannot or could not do that at the start[.] (Podcaster F, History Podcast 2, 209-212)

However, podcasters that decided on topics relatively spontaneously also had the ability to more quickly respond to important, current events that were of significance for the podcast's subject niche. The Corona pandemic, the European soccer championship, or the release of a new film trailer were mentioned by the following podcasters as examples:

> When a surprising trailer happens, we're right there on the same night, I think. (Podcaster M, Film Podcast 2, 227)

[19] An editorial schedule refers to the chronological pre-planning of topics and publication dates for the episodes.

> Which is simply because certain things come up. For example, the Corona pandemic has happened, where we have picked topics at relatively short notice and so on. (Podcaster N, Medical Podcast 1, 90-92)
>
> But we can easily postpone it if there are any / Recently, we did another episode about the European Championship, which we included spontaneously. So that was very, very convenient. (Podcaster S, Travel Podcast 2, 73-75)

Given that nearly all podcasters interviewed produce their podcasts in their free time or as a hobby, the most frequently mentioned decision criterion for an episode topic was their interest in the topic or the desire to engage with the topic and adapt it for the podcast. The interviewed podcasters also pointed out that they pay attention to the variety of topics in the episodes, meaning they avoid using similar topics in successive episodes. Additionally, when selecting guests, some podcasters, such as Podcaster L, also make sure that the gender ratio is balanced and that different voices get a chance to speak:

> I have created the whole thing with a very strict gender parity, because it is totally important to me to depict women and men, asterisks and all, equally. (Musical Podcast 1, 38-40)

As mentioned earlier, most podcasters studied gave their listeners the opportunity to send in suggestions for topics, however, only a few of them were turned into episodes. This is due to the fact that many listener suggestions overlapped with the podcasters' own topic ideas or with previous suggestions. Although listener suggestions were rarely turned into episodes, they were still highly welcomed by the podcasters. As cited by Podcaster F, listener suggestions can serve as a kind of interest barometer that the podcaster can use to select future episode topics:

> There are concrete suggestions for topics from listeners, which I then also write down if they are of interest to me. But a lot of it is simply the same, where I then also notice which topics are well liked, where I then also get more feedback. And then I also write down: Okay, these topics are well received. Now, for example, the Middle Ages, which is what I [have] specifically in mind. (History Podcast 2, 61-65)

4.1.2 Topic Research

After a topic has been selected, the literature research or review of material on the topic usually ensues. The literature research is thus the second process of the pre-production stage. In episodes with guests, literature research and acquisition of guests usually take place simultaneously.

The more importance podcasters placed on conveying objective factual knowledge, the more time they generally invested in research. Conversely, podcasts based on subjective experiences reported that only little time had to be invested in research. For educational and scientific podcasts, in particular, the source of the information was an important aspect. Many podcasters stated that they use reference books, scientific papers, or newspaper articles when conducting research. In addition, podcasters often used several different sources to present opposing viewpoints or background information. In some cases, literature was even purchased specifically for the podcast episode. The following statements aim to illustrate the importance placed on the quality of resources by the interviewed podcasters:

> I think it's very important that we on the one hand somehow have this scientific claim and also always do a lot of research for the episodes. (Podcaster A, History Podcast 1, 62-63)
>
> Depending on how extensive the book is. So it can be longer if it's a complete book and I also do research on the Internet and read essays, then it can quickly be two or three working days just reading. (Podcaster I, History Podcast 3, 134-136)
>
> And then we always have our three, four, five, six books, essays, and then we try to write that together as best as we can, so to speak. (Podcaster K, History Podcast 4, 352-353)
>
> I'm always happy to receive used literature, which doesn't have to be new literature. That already helps me immensely, because every book is an episode for me in the best case. (Podcaster Q, True Crime Podcast 2, 485-487)

The high importance attached to the quality of sources might be due to the fact that a large number of the interviewees derived their subject niche from their academic background (e.g. history or psychology). Misinformation or insufficiently considered facts might therefore have a negative impact on the podcasters' academic careers, as stated by Podcaster A:

> On the one hand, of course, we are both very afraid that we might just accidentally spread nonsense. And that's also difficult because of course our names are on it and we both might want to work in academia and then / To exaggerate, we don't want to lose our reputation by inadvertently spreading nonsense. (History Podcast 1, 408-410)

Additionally, the interviewed podcasters reported that listeners are quick to point out misinformation or incorrect pronunciation in their feedback. In order to ensure transparency for listeners, podcasters rarely edit the episodes after publishing. Therefore, corrections have to be made via a disclaimer in a subsequent episode. Podcaster S, points out, that to avoid criticism, podcasters are concerned with the accuracy of even simple information:

> So, when you talk about Albanian mountain villages, you should pronounce them correctly, otherwise there is likely feedback from the listeners. However, we do that, and then we also make sure that we have the distances correct, that we say the number of kilometers and hours because that is sometimes forgotten. (Travel Podcast 2, 181-184)

Information also has to be prepared differently for the aural medium of podcasts. Since visual material such as images or film sequences cannot be shown, they have to be paraphrased. During the research, it is, therefore, necessary to sort out which visual material is to be referenced later during the recording, as stated by Podcaster A:

> And then the second thing, which is particularly difficult for us, is that we both actually study an image-heavy science. And as Jan already said at the beginning, the podcast has no pictures, which is why we always refer to our homepage, saying: Look at the pictures there. But of course we also know that only a fraction of people really look at the pictures and most of them just listen to the podcast. And then we just have to describe a lot of things that we would otherwise just show. (History Podcast 1, 412-417)

4.1.3 Recruiting Guests

The recruiting of guests is usually done simultaneously with the literature research and thus also belongs to the second step of the pre-production process. Out of 15 podcasts interviewed, 12 podcasts had regular episodes with guests, however, the number of guest episodes depended strongly on the podcast format. The more central interviews were to a podcast format, the more important the recruiting aspect became in the pre-production stage. According to the statements of the studied podcasters, it can be assumed that the decision for a guest already takes place during the topic selection or very early during the literature research. Two factors determine the decision for a guest: the possibility for cross-promotion and topic expertise.

Cross-Promotion. The opportunity for cross-promotion usually comes from collaborating with other podcasters. Some podcasters referred to the joint episode between collaborating podcasts as a crossover episode. The interviewees described that the goals of crossover episodes are primarily the exchange of listeners and the network extension within the podcaster community. Since podcasts are consumed asynchronously – meaning there is no live broadcasting – even within one genre there is no need to compete for the listeners' presence at one particular time. The sense of competition among podcasters was hence very low.

A collaboration between podcasters aims at attracting attention to the invited podcast. This means podcast A invites podcast B for a guest episode on the podcast in order to make podcast B known to podcast A's audience. In most cases, the collaborating podcasts had a similar thematic framework (e.g. history). Thereby, podcast themes can be very congruent (e.g. two collaborating podcasts that focus on women in history) or

highlight different foci within the same thematic framework (e.g. a podcast about women's history and a podcast about photography history).

Collaboration can be one-sided or reciprocal. In a one-sided collaboration, only one crossover episode is produced; podcast A is the host, and podcast B is the guest. The listener gain is greater for the invited podcast. In a reciprocal collaboration, both podcasts produce a crossover episode with the respective collaboration partner as the guest. In a reciprocal collaboration, the mutual exchange of listeners is greater. None of the interviewed podcasters explicitly addressed why a one-sided or reciprocal collaboration was chosen. However, it can be assumed that pragmatic reasons such as time or experience contribute to the decision.

Moreover, a collaboration between podcasters can either be one-time or recurring. In the case of a one-time collaboration, the focus is usually on attracting attention or exchanging listeners. With recurring collaborations, this is increasingly accompanied by the aspect of a mutual friendship, as noted by Podcaster M:

> There are friendly podcasts; there is 'Antenne Alderaan' and for example 'Blue Milk Blues' [...] And we also do stuff with him [Blue Milk Blues] from time to time, because we simply respect [what he does.] (Film Podcast 2, 149-157)

Many interviewed podcasters were well connected with other podcasters within their subject niche and used this network to find new collaborations. For podcasts that are still relatively new, the request for collaboration usually came from larger, more established podcasts. Thereby, the larger podcast wants to give the new podcast a platform and draw attention to it. The following statements by Podcaster E and Podcaster I illustrate this practice:

> [S]o we get a lot of requests for crossover episodes, the one from ‘Zeitsprung.fm’ was, I think, also from them [...]. That means it didn’t come from us at all. And with that, of course, our visibility, well that was the first point where our visibility increased. (Biology Podcast 1, 111-114)
>
> So the first two ‘Historia Universalis’ and ‘Déjà-vu Geschichte’ - that was at the very beginning of the podcast - and they both approached me. [...] And they approached me and said: Hey, here’s someone new, we’d like you / We’ll feature you on our show, and we just want you to become better known, so that listeners who hear us can also migrate over to you. (History Podcast 3, 424-429)

Topic Expertise. Apart from cross-promotion, guests can also be invited based on their topic expertise. Given their knowledge, both podcasting experts, meaning experts with their own podcast, and external experts, meaning experts without their own podcast, can be invited.

In the case of podcasting experts, the topic expertise is usually reflected in the chosen thematic focus of the podcast. However, compared to external experts, inviting podcasting experts has numerous advantages for the hosting podcast. Firstly, interviewees pointed out that podcasting experts are already in possession of more sophisticated recording equipment and are more familiar with the recording procedures. Secondly, respondents stated that podcasting experts are more practiced or fluent in the way they speak during recording. Moreover, recruiting a podcasting expert was described as easier since most podcasters are well-connected on social media within their subject niche. Podcaster I, for example, explains the reasoning for inviting another podcaster as a topic expert:

> And then there was the episode with Ralf Grabuschnig from 'Déjà-vu Geschichte', where we both talked about Elena Ceausescu. And the point was that Ralf, for example, knows Eastern Europe relatively well and also speaks the language a bit. And he was very able to discuss Ceausescu's dictatorship in general[.] (History Podcast 3, 393-396)

However, it is not always possible to find podcasters who are suitable experts for a particular topic. In these cases, external experts are often invited. The advantage of external experts is that they usually enjoy a certain reputation in their subject area, from which the podcast can benefit or which is transferred to the podcast, as exemplified by Podcaster J:

> [Specialized scientists] could really make a good contribution there, so that we would then be even closer to science. Which, of course, is also something reputable for the podcast, and [it] would certainly also interest the listeners to hear from the real experts. (History Podcast 4, 188-190)

In contrast to podcasting experts, external experts may have substandard recording equipment, resulting in a large dissonance between the professional audio of the host podcast and the amateur audio of the external expert. In order to ensure consistent audio quality, it was common practice for the host podcasts to visit the external experts and record them using the host podcast's equipment, as noted by Podcaster N:

> And in the beginning we actually traveled as well. [...] We really went there and recorded on location. (Medical Podcast 1, 63-64)

Because of the contact restrictions of the COVID-19 pandemic, meeting face-to-face with the external experts was eliminated. Therefore, the joint recording had to be

conducted remotely from separate locations. The podcasters mostly came to terms with the new recording situation. However, one interviewed podcast makes the effort to mail recording equipment to guests to ensure consistent audio quality:

> When we invite guests - Corona doesn't allow it any other way - we send them a [Focusrite] Scarlett USB Solo and a [beyerdynamic] DT 297. (Podcaster N, Medical Podcast 1, 283-284)

Furthermore, external guests not trained in public speaking may deviate from typical podcast standards in their manner of speaking. Frequent filler sounds ("um"), stuttering, or long pauses result in extra work for the host podcast during the editing process, as the recording of the expert has to be more heavily edited and adapted to the podcast standard. However, the external expert's knowledge often outweighed concerns about audio quality or speech flow, as stated by Podcaster Q:

> You have lots of editing work, because people trip over their tongue more often. The guests are excited, and you can understand that. There are a lot of 'ums', a lot of breathing noises. (True Crime Podcast 2, 215-217)

Process of Guest Recruitment. Podcast guests are recruited from the podcaster's private or professional network as well as people with whom the podcaster has no previous contact. Podcasters interviewed stated that primarily emails or messages via social media are used to contact and recruit guests. In the early stages of podcasting or for the first guest episode, interviewees reported that they are more inclined to choose family, friends, or people from their professional environment. For example, podcasters who study or work in academia often reached out to faculty members they know. Since many podcasters were well connected within their subject niche, there was also often a

pre-existing relationship before the cooperation. The following podcasters' statements serve to illustrate this practice:

> These were either people we already knew, so friends of ours, or people we somehow got to know in the scientific context as lecturers. (Podcaster A, History Podcast 1, 116-118)
>
> So far, I've mainly tapped into my professional and private network [for recruiting guests]. (Podcaster L, Musical Podcast 1, 59)
>
> Since we all studied in Witten, which already opened a few doors for us at the beginning. That is, we actually had many opportunities to get close to professors and so on. (Podcaster N, Medical Podcast 1, 120-121)
>
> But other than that, it's just more or less friends or people you kind of know from the film podcast scene. (Podcaster C, Film Podcast 1, 169-171)

The advantage of people from the private or professional environment is that a relationship already exists with the person and securing their participants might therefore be faster and less complicated. In addition, a friend or family relationship can relax the recording situation and even facilitate the start of regular guest episodes. As the podcast becomes more sophisticated and established, podcasters are more likely to contact people with whom they do not have a prior relationship. In some cases, listeners suggested guests or people approached the podcaster directly. The more established a podcast is in its subject area, the more frequently those inquiries come from the future guests themselves, as Podcaster L and Podcaster N note:

> Meanwhile, I also [interview] people who are recommended to me by people who have been guests on my podcast. And I'm very lucky that I already have a certain

reputation within the target group scene, so to speak. That people, when I then ask them or when someone tells me: 'Ask XY.' that they are very happy. And I don't have to make cold calls, so to speak. (Musical Podcast 1, 60-64)

And that's why we have gained a little bit of respect, I would think. At some point, a professor told us that there are several people he knows who are just waiting to get an invitation from us and that there are also apparently some who are actually pissed off that we haven't invited them yet. (Podcaster N, Medical Podcast 1, 141-144)

After a guest is secured and a joint date for the recording has been confirmed, many of the interviewed podcasters report that they change their routine for literature research. Unlike episodes without guests, where the podcasters themselves are responsible for the research, in guest episodes, the guest is responsible for most of the content preparation. In this case, podcasters usually take on the role of the interviewer, whereby the research effort now comprises introducing the guest and preparing interview questions, as Podcaster A and Podcaster N pointed out:

[...] that we have to more or less familiarize ourselves with a subject of which we have much less knowledge in order to be able to ask reasonably intelligent questions and to be able to build a conversation. (History Podcast 1, 118-120)

We have a topic and then we inform ourselves about the topic. We read up on it, we look at what's out there. [...] And that's usually where we get our information from. And from this information we develop questions. [...] And with these questions we go to the guests. (Medical Podcast 1, 173-178)

Moreover, especially for guests who have no experience with podcasts, the structuring of the interview and the recording are also part of the podcaster's responsibility. As with general literature research, the more a podcaster reported presenting objective factual information, the more research time had to be invested in drafting questions. Whereas podcasts that focused more on the experiences of a guest invested less time in research.

While 12 of the 15 interviewed podcasts regularly integrate guests into their show, three podcasts have no guests. However, all those interviewed stated that they can imagine integrating guests into their podcast. At the time of the interview, the recruitment of guests failed either due to the lack of compatibility between guests and podcasters or due to difficulties in scheduling the joint recording.

> [W]e would definitely not be averse to trying [to invite guests] at some point. (Podcaster G, True Crime Podcast 1, 239)
>
> So far [we don't] have [guests on the podcast]. But that's something we might plan for the future. But we haven't been able to realize it yet. (Podcaster K, History Podcast 4, 180-181)
>
> [I]f a request comes in somehow and it fits and I can imagine it, then yes. But it's not like I say: 'Okay, I think that's my goal now. I have to do it now.' If it happens, it happens, if it doesn't, it doesn't. So I also don't know at all whether I would prefer that or not. Of course, I've already had inquiries, but they just didn't fit. Or the format just didn't suit me or the way the inquiry took place. And I think that's also okay if you then simply say: 'Okay, I don't know, it just doesn't work for me now.' (Podcaster R, True Crime Podcast 3, 329-334)

4.1.4 Writing the Podcast Script

Writing the podcast script is the process of preparing the collected material from the research for recording. Podcast script writing is therefore the third and last process in the pre-production stage. Script writing can be done simultaneously with literature research, however, podcasters stated that they typically begin their pre-production with research and end with script writing, which is why these can be viewed as consecutive steps.

In the context of this thesis, a podcast script is defined as all written material that later guides and structures the recording. This includes flow charts, interview questions, notes, and bullet points as well as fully worded texts. The script for a podcast usually serves two functions - the storage of information and the chronological structuring of the recording.

The flowchart is the simplest form of a podcast script and requires minimal preparation time. A flowchart defines the chronological flow of certain categories or segments (e.g. intro, talking about a topic, reaction to listener feedback) during the recording and acts as a sort of framework or skeleton for the structure of the episode. A flowchart offers very little contextual orientation or reference points and is therefore mainly used when the recording should be as spontaneous and free as possible, or when few notes are needed, such as when recalling one's own experiences. However, interviewed podcasts rarely use only a flowchart, as it represents a great uncertainty for the recording and carries the risk of misinformation or repetition. Most podcasters, such as Podcaster S, therefore use a combination of flowchart and notes:

> [W]e have different categories in the podcast. It starts with the intro, it goes on to local transportation, safety and sightseeing. This skeleton, I would call it, is always there, plus of course we write down the names so that we pronounce them correctly. And that's also a bit of the script. (Travel Podcast 2, 178-181)

Notes were the most commonly used form of a podcast script and mainly served as a memory aid for the podcaster in the context of knowledge transfer. For example, podcasters write down years or foreign words in order to recall them correctly during the recording. Usually, podcasters wrote down notes as bullet points and formulated them into complete sentences during the recording. Here, the spectrum ranged from loose groups of words to almost fully phrased sentences. Two-host podcasts, in particular, often reported using bullet points since they enable a natural conversation between hosts without compromising the knowledge transfer, as exemplified by the podcasters from History Podcast 1:

> So purely scripted text is zero percent. What we do, of course, is that we discuss beforehand, we want to discuss these sources, this statue. And of course we've already kind of written down the hard facts in our concepts, but more in bullet points. (Podcaster A, History Podcast 1, 378-380)

> [B]ecause I also try to incorporate this relaxed feeling into our [podcast]. I don't want to have this completely scientific lecture thing, but rather more of a conversation. (Podcaster B, History Podcast 1, 450-452)

Several podcasters stated that in the beginning, they used longer bullet points, mostly to provide a feeling of security during the recording or to maintain a continuous flow of speech. However, through experience and routine, the podcaster often becomes

more adept at talking fluidly and the use of bullet points is reduced. Although the interviewed podcasters did not explicitly mention it, it can be assumed that the notes are sorted chronologically to facilitate recitation during recording.

The most comprehensive form of podcast script is the full script, whereby verbatim text is read sentence by sentence. The writing of a full script takes the most time and can require about eight to ten hours of additional preparation time for an average episode length of one hour. One-host podcasts without frequent guest appearances, in particular, use a full script as they lack interaction and discussion with additional people during the recording, as illustrated by Podcaster Q:

> Well, at the very beginning I used notes and tried to retell them, but it didn't work. It's also difficult when you're sitting alone in a room and speaking to a microphone. Not only do you feel really stupid, but sometimes you just don't have / It's like that. You don't get any feedback. I then decided to put the stories into texts that most closely resemble books about true crime cases. (True Crime Podcast 2, 239-243)

The biggest advantage of a full script is that it reduces uncertainty during recording by ensuring that information is presented accurately and in a pre-developed arc of narrative. Especially one-host podcasts noted that their monologue poses the risk that listeners might perceive it as boring. A full script helps to create an arc that makes the presentation interesting and provides a common thread for the listeners throughout the episode, as stated by Podcaster R:

> Well, once, because I simply find this free presentation from the thought protocol difficult for me. Then there are also a thousand filler words and 'um' and 'uh' and

‘um’. And those are just things where I just went: Okay, I’ll script the case, then it will be more structured and then I’ll have a common thread somehow. (True Crime Podcast 3, 75-78)

4.2 Recording

The recording is the second production stage in the creation of a podcast episode. The recording is a singular process that is heavily influenced by the aspects of recording environment and recording equipment.

The recording is the production stage with the least variance among the interviewed podcasters - almost every podcaster recorded between 30 minutes and three hours, which roughly correlates to the intended episode length. This implies that recording time and episode length are interrelated. On the one hand, the intended episode length determines the duration of the recording, meaning a 30-minute episode requires a 30-minute recording; a 90-minute episode requires a 90-minute recording. On the other hand, the situation during the recording also influences the episode length – especially in the case of guest and single-host recordings.

Regardless of the podcast format, episodes with guests were stated to be some of the lengthiest episodes within the entire podcast portfolio. In most cases, the recording with a guest was not constrained by a time limit but depended on the quality of the conversation. Most podcasters reasoned that by giving guests time to verbalize their thoughts during the recording, they are improving the dialogue quality of the conversation. A time limit could quickly irritate or stress out guests, especially those inexperienced in the media, and thus impair the quality of the interview. In addition, most podcasters rejected the idea of artificially shortening the conversation in the editing

process, as it constitutes a content gatekeeping of guest statements and thus complicates potential approval processes. As a result, the majority of guest episodes were more than one to two hours long, which is sometimes twice the length of regular episodes. The following statements from podcasters further highlight the special status of guest episodes:

> And the [episodes] can also last a really long time, depending on which guest we have, depending on how much the guest then also has to say. (Podcaster C, Film Podcast 1, 139-140)
>
> And everything that goes beyond that is actually then with guests. I neither find it pleasant to keep it so short, because either you have to shorten or cut extremely, or you have to rush a lot. And then I also allow myself the time and talk to the people for an hour or an hour and a half. (Podcaster F, History Podcast 2, 80-83)
>
> That means the format and then, of course, especially in conversations, the conversation determines the length. If the conversation is great for two hours, then it's great for two hours. And if the conversation, let's say, starts to drag on after an hour ten, then of course it's up to me to channel it accordingly and end it earlier. So an episode lasts as long as the conversation is good. (Podcaster L, Musical Podcast 1, 52-56)
>
> Well, we also did hour-long episodes in between - just under an hour, 45 minutes, an hour. I think that's a nice length for an interview. [...] If they are mono episodes, then I find 45 minutes or an hour much too long. Here, 15 minutes, half an hour, I would say, is quite pleasant. (Podcaster P, Travel Podcast 1, 88-93)

In contrast to guest episodes, one-host episodes usually had the shortest recording time and therefore the shortest episode length. According to some of the podcasters interviewed, 30 minutes is considered to be the ideal length for a one-host episode. A longer recording is described as unpleasant and boring by podcasters since there is no other person to converse with, so they just soliloquize. The exception was heavily scripted one-host episodes, which usually run to about an hour in length. Similarly, soliloquizing is described as uncomfortable, therefore, some interviewees mention that reading a script aloud reduces the discomfort while allowing for structured storytelling.

However, not all podcasts had the same ratio of recording time to intended episode length. About half of the participants reported that their recording time is relatively identical to the length of the published episode, while the other half reported that it takes them (significantly) longer to record compared to the published episode length.

One aspect that prolonged the recording stage is the pre- or post-interview briefing, which can be conducted between podcast hosts or with guests and is usually not recorded. In most cases, the briefing was used to discuss the structure of the episode with the participants. With guests, the briefing also serves to instruct guests about technical particularities of podcast recording and to determine the interview questions, as stated by Podcaster O:

> So if it's an interview, then I usually have a briefing. That lasts about half an hour. [...] And then [the briefing] is about defining the topics - what the person wants to talk about, what they don't want to talk about, how to structure the

podcast episode, how to structure the interview, what they want to focus on. (Medical Podcast 2, 50-54)

Another aspect that influenced the length of the recording is the amount of private or friendly banter during the recording. Podcasters who reported talking about private matters with other hosts or guests during the recording tended to spend more time recording, as noted by Podcaster L and Podcaster M:

> So that takes about, I would estimate, the length of an episode, plus 25 percent of the time again. So usually there's a little bit of preliminary banter and then afterwards, if you somehow still have things in the conversation where you then say, 'Oh, I have to tell you that when the recording device isn't running,' or something. So, just over the top of my head, if it's going to be an hour and a half episode, then I schedule two hours. (Podcaster L, Musical Podcast 1, 93-97)

> The recording time is usually the length of the episode plus two hours. Most of the time it's an hour before. It's a bit of chatting, getting started, and usually there's also an hour afterwards where we recap a bit or talk about the food of the past week or something. (Podcaster M, Film Podcast 2, 105-107)

Lastly, it was observed that heavily scripted podcasts also have a significantly longer recording time compared to the published episode length. This might be related to the fact that when reading a full script, podcasters trip over their tongues more often, and therefore some paragraphs have to be reread several times during the recording.

4.2.1 Recording Environment

When choosing a recording location, podcasters seek control over a space in order to minimize noise and maximize audio quality. Podcasters avoided public areas and large

crowds when possible since the amount of noise varies greatly[20]. Podcasters preferred a closed off recording location in which only the podcast hosts or guests are present and thus few additional sounds are produced.

Podcasters can record podcasts either stationary (meaning a set location) or mobile (meaning varying locations). In many cases, podcasters use a mix of stationary and mobile recording, depending on the format of the episode (e.g. mobile recording for episodes with guests). In addition, all podcast hosts or guests can record together in one room or spatially separated from each other, meaning remotely.

Stationary Recording. The majority of podcasters examined record their podcast stationary, meaning they regularly record in the same location. The advantage of a stationary recording is that the recording situation can be controlled more effectively and extraneous noises can be reduced to a minimum.

None of the interviewees had an external recording studio or rent an external recording studio because either there is no interest or the current podcast income would not cover the cost of a studio. All interviewed podcasters who record stationarily record from their own homes. Only two podcasters - a music producer and a podcast producer[21] whose jobs afford them a professionalized recording setting that they can use simultaneously for their podcast - have a dedicated recording space. The majority of podcasters, however, recorded in their living or bedrooms, as these rooms usually contain many textiles such as

[20] This does not mean that there are no recordings in public spaces or with larger crowds. Recordings under these conditions, however, are usually limited to special episodes where the amplified background noise serves as the atmosphere for the podcast recording.

[21] It should be noted that the podcast producer stated that he still produces the podcast in question in his spare time. Due to the success of this podcast, he set up his own business as a podcasts producer and acts primarily as a consultant for businesses that want to launch their own podcast.

carpets, curtains, or blankets that absorb the reverberation in the room and provide better room acoustics:

> So living room or bedroom. In the bedroom, the acoustics are the best, because of all the fabric and the clothes and stuff. But the living room is a bit cozier. (Podcaster C, Film Podcast 1, 315-316)

> The bedroom is usually a good tip. If there is carpet in it or the bed, the blankets catch the noise so that it does not reverberate quite as much. (Podcaster S, Travel Podcast 2, 155-156)

Unfurnished or sparsely furnished rooms or rooms with many smooth surfaces such as kitchens or bathrooms are not suitable for podcast recording due to their reverberation, and were thus actively avoided by the interviewed podcasters:

> And of course we try to choose rooms that are not mega reverberant or anything like that. (Podcaster G, True Crime Podcast 1, 212-213)

> I have to search a bit; we have just moved and I have to check which room would fit best in terms of reverberation. (Podcaster O, Medical Podcast 2, 123-124)

Mobile Recording. Mobile recording, i.e. recording in different locations, is mainly used for guest episodes. However, only two podcasts stated that they regularly use mobile recording. Both podcasts focus heavily on interviews, which indicates that mobile recording is only used by podcasts that have a high percentage of guest appearances:

> And in the beginning we actually traveled as well. So we didn't record very remotely. We really went there and recorded on location. (Podcaster N, Medical Podcast 1, 63-64)

> So, I've recorded in theater offices, people's kitchens, people's living rooms, the front room of an office I used to work in. I went to people's offices. Anywhere where it's reasonably assessable in terms of the soundscape and where people feel comfortable. (181-184)

The advantages of mobile recording are that for the guest it is relatively hassle-free, while the podcaster can at the same time control the interview situation and audio quality on site. However, mobile recording has some disadvantages, such as requiring additional equipment (e.g. extra microphone for the guest, audio interface with several microphone connectors) and it is usually time-consuming and costly commuting to the recording site. In addition, mobile recording poses the risk of damaging the recording equipment during travel. Due to the contact restrictions of the COVID-19 pandemic, however, mobile recording increasingly shifted to remote recording.

Remote Recording. A remote recording takes place between spatially separated podcasters or guests who are connected via a video conferencing tool. In most cases, remote recording is stationary, meaning that the podcasters record from a set location. Remote recording also usually requires separate recording software that records the audio tracks of everyone involved in the (video) conference; the interviewed podcasters mentioned FaceTime, Studio Link, Zencastr, and Zoom for this purpose.

Remote recording was mainly used by podcasters who are geographically dispersed and joint recording would involve a huge investment of time and money. Some podcasters stated, for example, that they are or were working abroad for a longer period of time, but at the same time did not want to give up their mutual hobby of podcasting and therefore chose remote recording:

> We both studied in Vienna and met each other there. But the podcast only came into being after I moved away [to Germany], for my job. And because of that, we always knew that we would do it virtually, which had nothing to do with Corona. It was just: Okay, we're just not in the same place anymore, we'll do it digitally. (Podcaster B, History Podcast 1, 226-230)

> So especially when I was in Israel, we always recorded remotely, so to speak [...]. (Podcaster E, Biology Podcast 1, 230-231)

In the wake of the COVID-19 pandemic contact restrictions, podcasters could no longer visit their guests in person and had to switch to remote recording. One benefit of remote recording is that no additional equipment is required, so there is no need to buy extra microphones or an audio interface. At the same time, however, there is the disadvantage that the guest's recording situation can no longer be controlled on-site by the podcaster and thus demands for good audio equipment as well as technical know-how are imposed on the guest. Another disadvantage of remote recording is the high dependency on technology. Podcaster B and Podcaster N, for example, note that a good Internet connection is required for high-quality recording, as disruptions in the Internet connection impede the flow of conversation:

> And what else is tricky is that Germany and Austria are not the strongest Internet nations in the world (laughing), so we have had episodes where we hardly understood each other because we simply had connection problems. So we still talked to each other and everyone still recorded, but actually I no longer understood what [name of podcaster] said and vice versa. (History Podcast 1, 249-252)

> You're always dependent on how the Internet connection works. And if [the guest is] sitting behind a firewall, then I'm happy if it works somehow. (Medical Podcast 1, 301-302)

Joint Recording. A joint recording is made when podcasters or guests record in the same room; a mobile recording at a guest's home is also a joint recording if the podcaster and guest are recording in the same room. Joint recording was common for podcasters who live within close proximity of each other, so commuting was not a major obstacle. Podcasters who lived in separate households usually alternated between recording locations.

The basic requirement for a joint recording is that, if possible, a separate audio track is recorded for each speaker, as this simplifies later editing of the recording. However, when using extremely sensitive (condenser) microphones, there is the risk that the microphone records all speakers, and conversely, the audio track also include the voices and noises of all speakers. This defeats the purpose of multiple microphones as eliminates the better editability of separate audio tracks, as described by Podcaster G:

> So we had actually bought two USB microphones until we realized, 'Okay, two USB microphones don't work at all for a recording.' Then you'd have to use the somewhat better microphones, I'd say. That's why we're using one microphone at the moment. (True Crime Podcast 1, 216-219)

4.2.2 Recording Equipment

The recording equipment is one of the most important aspects of the recording and significantly determines the audio quality of the podcast. Recording equipment includes

microphones, audio interfaces, pop filters, headphones, sound barriers, and mounts for the microphone.

Microphone. The microphone is the central device for the recording process and is usually the most expensive individual purchase for a podcast. However, investing in a microphone carries some financial risk, especially at the beginning stages of launching a podcast it is still uncertain whether they to continue podcasting as a hobby. Many podcasters, therefore, started with low-priced models (under $100) or used microphones that they already own. Around one-third of the podcasters examined stated that their first revenues from the podcast were used to upgrade the recording equipment, as exemplified by Podcaster Q:

> I first looked at the price. Lowest price first. And yeah, that was shit, so to speak. So I would never do it that way again today. [...] When I had my first advertising contracts and earned money, I then obviously looked how the ratings looked. [...] And there the price was not relevant, you could just spend 200 euros, because you had it. (True Crime Podcast 2, 358-368)

Remarkably, two host podcasts usually used the same microphone type from the same manufacturer, while podcasts with three or more speakers used different types of microphones. Using the same microphone type has the advantage that the sound quality of the recorded audio tracks remains constant while using different microphones has the advantage of being more adaptable to the needs and technical know-how of the speaker. For the purpose of this thesis, the podcast's microphone is therefore considered to be either the microphone used by most speakers or the microphone used by the interviewed podcaster.

The most popular brand for podcast microphones was the Australian manufacturer RØDE. At the time of the interviews, one-third of the podcasts (*n = 5*) used a microphone from RØDE. Most of the RØDE microphones used were condenser microphones[22]. The second most popular manufacturer for microphones was the U.S. manufacturer Shure; at the time of the interviews, four podcasts were using a microphone from Shure. The Shure microphones used were mostly dynamic microphones. Two podcasts used the DT 297 headphone-microphone combination from the German company Beyerdynamic. Other microphones used were from the U.S. companies Blue Microphones and Samson Technologies and the Austrian manufacturer AKG.

Dynamic Microphones vs. Condenser Microphones. Dynamic microphones are characterized by being less sensitive to background noise and high-pitched sounds, and therefore effectively suppress background noise. Dynamic microphones are therefore particularly suited for (mobile) recording in environments with a lot of background noise or for recording multiple speakers in a room. Condenser microphones, in contrast, are very sensitive to sound, giving the recording a more natural and detailed sound. Recording with a condenser microphone requires a quiet and muffled environment with only a single speaker in the room since otherwise a lot of background noise is recorded as well (Osburn, 2020a). Of 15 podcasts interviewed, eight podcasts currently use condenser microphones, three podcasts use dynamic microphones, and four podcasts could not provide specific information about the type of microphone they use during the interview. To achieve high audio quality, interviewees with condenser microphones report using textile soundproofing (e.g. spreading blankets around the room) to reduce reverberation.

[22] One of the podcasts mentioned the manufacturer RØDE, but not the exact microphone type, so it is not possible to clearly distinguish between a condenser and dynamic microphone.

Podcasters with dynamic microphones, meanwhile, state that they usually have to pay less attention to ambient noise during the recording and therefore do not need additional soundproofing:

> That's a dynamic mic, needs a huge amount - what's it called now again - pre-amplification, re-amp. Consequently, you have to get close to it and somehow get it to the same level, so you can't really hear the room. So that's my advantage, less ambient noise. (Podcaster F, History Podcast 2, 230-233)

XLR Microphones vs. USB Microphones. In addition to the distinction between dynamic and condenser microphones, microphones can be categorized by their connectors: XLR microphones and UBS microphones. Most USB microphones are condenser microphones, while XLR microphones encompass both dynamic and condenser microphones. XLR microphones produce an analog signal, which is mostly used to connect XLR microphones to audio devices such as amplifiers and stereos. However, the soundcard in a computer requires a digital signal, so the XLR microphone must be connected to the computer via an additional audio interface that converts the analog into a digital signal. USB microphones, on the other hand, have an integrated analog-to-digital converter and can therefore be connected directly to the computer via the USB port. While an XLR microphone provides better and more customizable sound, USB microphones are easier to use (Osburn, 2020b; The Pod Farm, 2020). Of the podcasts interviewed, seven podcasts use USB microphones, three podcasts use XLR microphones, and four podcasts could not provide specific information about the type of microphone they use during the interview.

Audio Interface. An audio interface is used to convert the analog signal of a microphone into a digital signal that the computer can process and record via the recording software. For a joint recording of two or more people with separate microphones, an audio interface is usually also necessary so that the different audio tracks can be processed by the computer. The maximum number of microphones that can be connected, and thus the maximum number of hosts or guests, is determined by the number of connectors on an audio interface. A subtype of the audio interface is the mobile recorder or field recorder, which also has sound controls and recording on an SD card, and can thus be used as a stand-alone recorder (podcaster.de, 2021).

The audio interface is a separate purchase, as it is not part of the microphone. Recording via XLR microphones and audio interfaces is also technically more demanding than with a USB microphone. Due to its complexity, the combination of XLR microphone and audio interface was therefore mainly used by podcasters with a musical or audio technician background. Of 15 podcasts interviewed, six podcasts used an audio interface, of which two podcasts used the mobile recorder subtype. Regular audio interfaces were exclusively a variant of the Scarlett audio interface by British manufacturer Focusrite, while all mobile recorders were models from the Japanese manufacturer Zoom Corporation.

Additional/Optional Recording Equipment. While the microphone and audio interface are essential for recording - because, without them, no recording would be possible - podcasters can adopt additional equipment to improve the audio quality of the recording. Here it should be noted that additional equipment was usually, but not exclusively, used in combination with condenser microphones. Since condenser

microphones record even the smallest background noise, additional equipment usually serves the purpose of further reducing the audibility of background noise during the recording.

The most common optional recording equipment was the pop filter. About two-thirds of the participants reported using a pop filter, either purchased separately or already built into the microphone. A pop filter is typically a diaphragm that is mounted in front of the microphone and protects the microphone from strong air bursts that occur during the pronunciation of plosives (e.g. b, p, t, and k). Smoothing plosives thus makes audio files more uniform and consistent (Buchynski, 2020).

Three out of 15 podcasts interviewed specifically stated that they use headphones during recording. In this context, headphones are used to allow the podcaster to hear themselves as the listener will hear them and, if necessary, to
adjust their manner of speaking during the recording. In addition, three podcasts reported using portable soundproofing screens that are set up during recording to reduce reverberation or echoes in the room.

Two out of 15 podcasts interviewed also reported using a special microphone mount that allows the podcaster to move the microphone freely. A microphone shock mount can also be attached to the microphone arm to help minimize vibration noise (e.g. bumping into a table, typing on a keyboard) (Benton, 2020).

4.2.3 Recording Process

The recording can best be described as an environment of artificial silence, which means that all sounds except the voice of the podcaster are deliberately eliminated. This artificial silence is based on the fact that the reduction of noise simplifies or shortens the

subsequent editing process – the less noise included in the recording means the less time the podcaster has to invest in editing the audio file later. Reducing noise is a common podcast convention as listeners want to be able to focus on the voice and the content of the podcast and noise other than the podcaster's voice can distract the listener.

To avoid noise during recording and create artificial silence, the interviewed podcasters developed several different practices:

- The recording location is lined with textiles or soundproofing panels to reduce reverberation in the room, as exemplified by Podcaster K:

  > Sometimes you might put a jacket on the floor[.] (History Podcast 4, 177-178)

- Windows and doors are closed to muffle ambient noise, as shown by the statement of Podcaster R:

  > I'm lucky that I don't sit facing the street and I always record with the window closed and everything. (True Crime Podcast 3, 245-246)

- Bystanders and animals are absent from the room so that no other audio source is present in the recording location, as noted by Podcaster Q:

  > The dog, I have to say honestly, I lock it out for the hour. So this hour belongs to me, because otherwise you'll hear it stepping. (True Crime Podcast 2, 306-307)

- "Noisy" objects (e.g. creaking chairs, clicky computer mouse, and humming refrigerator) are unplugged or deliberately not used during the recording, as stated by Podcaster B:

> What I notice over and over again is that the desk chair I have squeaks very badly, sometimes. That means I usually can't find another chair to sit on to record. Sometimes I forget that and that sucks. And I also have a very clicky loud mouse, which means I also always have to unplug it beforehand. (History Podcast 1, 246- 249)

- In the case of persistent noise (e.g. construction site), the recording is postponed to a later time, which was pointed out by Podcaster F:

  > [T]his wasn't a completely theoretical example with the neighbors and the renovation (laughing). [...] [I] need to pay some attention to it. I also have to plan a bit accordingly. Or it has also happened that I had to stop and then recorded two hours later or things like that. (History Podcast 2, 278-284)

In addition to minimizing background noise, the audio equipment must be properly functioning; the recording software has to be ready and the configuration of microphones has to be checked before recording. A common mistake the interviewed podcasters reported early in their podcasting experience is that the microphone was not properly connected to the computer or was not recognized by the computer. As a consequence, the sound quality was either substantially decreased or the audio track was completely lost and the episode must be re-recorded, as noted by the following podcasters:

> Sometimes what happens with our software is that the microphone switches to the laptop microphone. And we don't notice that right away and the sound is incredibly bad. (Podcaster G, True Crime Podcast 1, 296-298)

> There was once a problem with a duo recording that the wrong mic input was accidentally selected, which is really bad. Then it recorded via the Mac mic instead of the pro mic. And that sounded as if I had spoken into a watering can. (Podcaster I, History Podcast 3, 526-528)
>
> I think we also had a situation once where we didn't plug the cable in properly on a mic. And then we had to repeat the entire recording. That was not such a nice experience. (Podcaster K, History Podcast 4, 188-190)

After noise is minimized and the audio equipment is ready, the actual recording of the podcast episode can begin. Most podcasters stated that usually begin with a short warm-up or briefing between the hosts or guests. Besides structuring the content of the episode, the warm-up and briefing also served to establish a certain style and flow of speech.

The flow of speech in a podcast is very similar to colloquial or conversational speech but is adapted for easier editing and listening. Whereas, for example, filler sounds, minor pauses, or repeated words are common in everyday speech, podcast listeners may perceive those as disruptive and disturbing to their listening flow. The podcaster can remove these later in the editing process, which is often very time-consuming, therefore most of the interviewees tried to reduce their use already during the recording. Similarly, podcasters reported that they often had to repeat sentences or thoughts because of mistakes or wording problems, so that the faulty phrase can be edited out more easily. In addition, podcasters were been mindful of the intonation of words and sounds and tried to avoid noises such as loud breathing or smacking during recording. Besides adjusting the flow of speech, some interviewed podcasters also reported choosing a rather calm speech

tempo during recording, as this is perceived as pleasant by listeners and is often mentioned positively in listener feedback. The following statements serve to exemplify how podcasters adapted their speech flow:

> Nevertheless, when I'm editing, I always notice that one month I particularly like one word, a filler word, and I try to get out of this habit as quickly as possible. (Podcaster A, History Podcast 1, 465-466)
>
> I'm not panting anymore, I'm breathing smartly, I've done speech training. I have [...] not finished it [...], but I already know how one should emphasize and that one should emphasize. (Podcaster Q, True Crime Podcast 2, 429-431)
>
> You start developing a micro-routine. For example, I'm very careful with plosives and I pronounce some P's and T's very, very carefully. Almost in such a way that, actually, that I perceive it as unnatural myself." (Podcaster F, History Podcast 2, 296-298)
>
> Because I sometimes notice that I speak a bit more calmly in the podcast and have a more relaxed voice in the podcast. And that's the feedback I often get, that my episodes are actually pleasant. (Podcaster O, Medical Podcast 2, 167-169)

Most of the recording time is spent on the main topic of the podcast episode. Some podcasters indicated that they record episode-specific intro and outro, as well as advertising content for sponsorships separately. None of the interviewees reported that they regularly record multiple episodes in one sitting for the purpose of pre-production. Some podcasters mentioned that, for example, due to interview schedules, they sometimes have a higher number of recordings than needed for the next episode release. However, the majority of podcasters stated that due to a large amount of time required for

preparation and editing regular pre-production was not possible. In these cases, pre-production of episodes usually happens in the case of planned absences (e.g. vacation) and comprises one or two additionally produced episodes:

> No, I don't produce in bulk. I always have an episode or so that I have as a backup in case something else comes up, but that's already the maximum. (Podcaster F, History Podcast 2, 199-200)
>
> Of course, if episodes are already prescribed or if you know: Okay, you have less time now for the next week or you're going on vacation or something like that, then I do it beforehand. Although basically it's always writing, recording, editing, publishing and then it starts all over again. (Podcaster R, True Crime Podcast 3, 423-426)

A post-recording, that is a subsequent recording that refers to the content of a (published) episode, was done only in rare cases of corrections. A complete re-recording of the episode occurred only when there was a severe corruption of audio quality or loss of the audio file. In order to provide transparency for the listener, podcasters did not edit the faulty episode but recorded a short disclaimer that they placed at the beginning of the respective or subsequent episode to correct the misinformation. Even if a mistake was found by the podcaster before the episode is published, it was usually not replaced by a re-recording as the podcaster could not reproduce the same audio conditions as in the original recording, as noted by Podcaster F and Podcaster J:

> What I avoid is re-recording and then pretending that this is the original recording. Because I don't really get the sound right either. I might be a bit further away from the microphone or something. (History Podcast 2, 191-193)

> Especially since it's often not so easy to re-record something. If you can't reconstruct the exact recording situation then the whole thing sounds different, simply because the voice hasn't warmed up, for example, or I'm sitting somewhere else. (History Podcast 4, 211-213)

4.3 Post-production

Post-production, the third and final production step in the creation of a podcast episode, primarily involves editing the audio file after recording. Uploading the finished podcast episode to the hosting service is also considered part of post-production.

Time spent on post-production varies - the minimum editing time mentioned by the interviewed podcasters is five minutes and the maximum editing time is six to eight hours. The greatest influence on editing time was the number and detail of the editing criteria, meaning the less editing is done to the original recording file, the shorter the editing time. Conversely, the more filler sounds and short pauses are cut from an audio file, the longer the editing process will take. Additionally, podcasters reported that editing often requires listening to relevant segments several times so that the modification to the audio file is seamless and not audible later. This frequent fast-forwarding and rewinding costed the podcaster additional time during editing and many considered it to be the biggest time drain during editing:

> But since you have to listen back and forth more often, it basically takes just as long as the episode is long. (Podcaster C, Film Podcast 1, 268-269)
>
> [I]t depends a little bit on how detail-obsessed I am. Especially because when you have a trimmed area like that, where you might cut out an 'um' in the middle of a sentence, then you always have to jump back a bit or I do that. And then listen to

it again. Does that sound clean now or does that really sound like there's a hard cut there somehow? (Podcaster I, History Podcast 3, 330-334)

Podcasts with a full script also had a longer average editing time than podcasts with less scripted material. This might be due to the fact that heavily-scripted podcasts usually had a higher number of editing criteria in order to achieve a smooth reading flow. Podcasts whose core format was the recounting of one's own experiences and adventures usually had very few editing criteria and mostly kept the recording file in its original state, which in turn resulted in a shorter editing time.

Another factor influencing editing time was the length of the recording. Most podcasters stated that they listen to the entire recording when editing – so the longer the recording, the longer the editing time. However, as editing becomes more of a routine, it became common practice to listen to the recording file at 1.5 to 2 times playback speed, which in turn reduced playback time and thus editing time, as exemplified by the statements of Podcaster C and Podcaster S:

When editing, you have the option of increasing the speed, which I usually do to 1.5 or 1.7. (Podcaster C, Film Podcast 1, 267-268)

Plus another trick, I listen to the edit at 1.8 speed so you can go over it quickly. (Podcaster S, Travel Podcast 2, 202-203)

Some podcasters edit the audio file directly after recording and pointed out that the editing workload is minimized because the recording is more present and can therefore be edited in a more targeted manner:

So I record on the same day that I edit. And in that respect it's so fresh, I know: Oh, I made a mistake earlier. Then I know right away that I'll cut it out. (Podcaster I, History Podcast 3, 313-315)

[T]hen I edit the show directly afterwards. [...] Because for me, that simply makes my job a lot easier, because I still have the conversation in my head and I know exactly where I might have to do something and which parts I can just run through. (Podcaster M, Film Podcast 2, 115-119)

4.3.1 Editing Software

The most common software type used for the editing of audio files is called Digital Audio Workstation (DAW). DAWs can be defined as "software applications that are used for recording, editing, mixing, and producing audio files" (Duncan, 2021, p. 2). Based on this broad definition, all of the programs used by the interviewed podcasters thus fall into the category of DAW software.

Similar to recording equipment, many podcasters used other editing programs in the early stages of podcasting and then upgrade as the podcast becomes more established. The transition was therefore usually from free software to paid programs[23]. Interviewed podcasters cited an unappealing appearance of free software and difficulties in usage as reasons for migrating to paid programs:

At the very beginning I used Audacity, but that's relatively / Well, it's open source and looks like it. (Podcaster F, History Podcast 2, 241-242)

So I started with Audacity. That's / This free software is also great. So I always recommend that too when someone asks me, 'I want to start now, what's the best

[23] None of the interviewed podcasters moved from a paid program to free software.

> thing to do?' [...] Unfortunately, there were problems at some point, update problems with the Mac and then I had to switch to GarageBand, where I was not satisfied at all. (Podcaster R, True Crime Podcast 3, 210-213)

Of the 15 podcasts studied, seven podcasts currently use free editing software. For this group, the price was the most important factor in choosing the software. However, it should also be mentioned that the less feature-packed free programs also offer an easier introduction to audio editing, which is why they are often used by podcasters who have no experience in editing audio. Compared to paid programs, the selection of free audio editing software is much smaller and mostly limited to the open-source program Audacity and Apple's preinstalled audio program GarageBand. Audacity was used by five podcasts, while GarageBand was used by two podcasts, which could be attributed to the fact that GarageBand can only be used on Apple devices (like a MacBook) and that users of other operating systems, therefore, have to choose Audacity. Audacity is thus the most widely used editing software among all interviewed podcasters:

> I use Audacity, because it's a free software. And so that was the point where I said, well, I'll try it with the free software. Because if somehow everything doesn't work out, if the podcast somehow, if that's not my domain at all, then I can still / Then at least I haven't invested any more money in the software. (Podcaster I, History Podcast 3, 477-480)

The most popular paid editing programs were Adobe Audition and the open-source extension Ultraschall for the REAPER editing software. Audition from U.S. software giant Adobe Inc. was used by two interviewed podcasts and is based on a monthly subscription model. The open-source extension Ultraschall was used by three

interviewed podcasts. Although Ultraschall itself is free, a one-time charge must be paid for the REAPER editing software. Podcasters that chose Ultraschall stated that the decisive factor for using Ultraschall is that the software has been specially customized for podcasters, therefore has special podcast functions, and is programmed in Germany:

> This is also tailored specifically to podcasters. People also do that / So people develop that here in Germany on a voluntary basis and / [...] And then you really have special functions for podcasting that you don't have in other programs. That's why we use it. And because it's quite cheap. (Podcaster D, Film Podcast 1, 307-311)

> So I [record] with REAPER and Ultraschall, which is a relative top dog in Germany, I think, as far as podcast recordings are concerned[.] (Podcaster F, History Podcast 2, 235-236)

Other programs used by the interviewed podcasters include: 10 Live Lite by Ableton, Logic Studio by Apple, and Hindenburg Journalist by Hindenburg.

4.3.2 Editing Process

Editing can be done either internally, that is by the podcasters themselves, or externally, that is by a third party not involved in the podcast. Since external editing involves high costs and a certain relinquishment of control, only one of the podcasts examined used this option. The purpose of the editing process is to adapt the recording audio to the listener's reception - making listening to the audio file more pleasant – and to craft a narrative for the episode. Thereby, editing is a predominantly subtractive process, meaning the audio file is mainly trimmed and shortened. However, editing also includes additive processes, such as inserting sound effects, music, or prerecorded commercials.

The final step in the editing process is referred to as mixing and mainly involves leveling the different audio tracks.

Subtractive Editing. Subtractive editing refers to the removal of segments from the recorded audio track, also known as cutting or trimming. In general, a distinction can be made between a hard cut and a soft cut. Hard cut means that two audio sections are joined without transition (e.g. fading) and therefore a difference between the joined audio tracks is audible (e.g. different amplitude/volume, different frequency/pitch). A soft cut joins two audio segments together seamlessly (e.g. by crossfading) so that the transition between the merged audio tracks is not audible. Using a hard cut results in choppy and artificial sounding audio, while a soft cut is more natural and unnoticeable to the listener. Therefore, a soft cut was preferred by most of the interview participants.

However, not every verbal error, filler sound, or noise is isolated on the audio track in a way that allows for a seamless transition. The more scripted a podcast was, the more the recording was edited to remove anything that is not part of the script. Podcasts with full scripts, therefore, used a hard cut more often than podcasts with little script, as illustrated by Podcaster Q:

> Yeah, everything that's not perfect is cut out. So every slip of the tongue, every stutter, every wrong intonation I just cut out. Because, as I said, no one wants to listen / I don't want to listen to an elementary school student reading aloud. (True Crime Podcast 2, 292-294)

Ambient Noise. Ambient noise was mostly caused by the podcaster's inability to eliminate a noise source during the recording (e.g. construction site or street noise) or by

the podcaster's unawareness of the noise (e.g. laptop fan, refrigerator hum). Ambient noise is fairly uniform and comparatively quiet. It becomes audible in the audio file mainly due to amplification by a microphone[24]. Since ambient noise usually concerned the entire recording file, podcasters could not simply eliminate it through trimming, but had to use filters to minimize the noise[25], as exemplified by Podcaster I and Podcaster Q:

> I've also had an episode where the dog really wanted to be in the room and snored blissfully behind me. I think that's where the filter actually filters out a lot, but I warned people that if you hear a soft snore in the background today, it's the dog. (Podcaster I, History Podcast 3, 302-304)

> And you just had this [interviewee imitates sounds of a jackhammer] of this jackhammer in the background. But these are all things that you can filter out with the right programs. (Podcast Q, True Crime Podcast 2, 310-312)

Disruptive Noise. Disturbing noise is a short and sudden sound, which is often unpredictable to the podcaster during recording. Podcasters stated barking dogs, airplane noise, or the sound of a doorbell as typical examples of disturbing noise. However, disturbing noises can also be of human nature, such as coughing, throat clearing, or smacking noises[26]. Compared to ambient noise, disturbing noise is usually much louder and already noticeable during the recording. Disturbing noise cannot be removed by automatic noise reduction filters but must be trimmed manually from the audio file. To

[24] Here, the microphone is usually a sensitive condenser microphone. Dynamic microphones pick up ambient noise less frequently.
[25] This process is called noise reduction. Some editing programs offer features for automatic noise reduction. The program requires a five to ten-second sample of the ambient noise, i.e. without any speech or other noises, and uses this to remove the ambient noise for the entire audio file Quick Start Podcast (2021).
[26] Compared to disturbing noises, ambient noise is rarely of a human nature. One form of human ambient noise is, for example, loud breathing.

facilitate editing, podcasters reported that they try to isolate the disturbing noise on the audio track during the recording, meaning that podcasters paused the recording in terms of content and waited until the disturbing noise has passed, as described by Podcaster I and Podcaster R:

> That's the recorded sound track, but then there's also, for example, a plane flying overhead and I just pause there. I wait for about a minute until this sound is gone. (History Podcast 3, 320-321)
>
> But yeah, sure, if there's a helicopter flying around or a fire department with a siren, then I actually take a break and record again. (True Crime Podcast 3, 246-247)

Pauses. Pauses are empty in terms of content and sound. While in a face-to-face conversation one can tell from visual cues that the speaker is thinking, these non-verbal stimuli are missing when listening to an audio file. For the listener, it is not obvious why a pause is being made and whether a response is to be expected. Long pauses in particular interrupt the listening flow. However, pauses are not necessarily cut out of the audio file completely but are usually shortened in time so that pauses still serve as a content break. The statement of Podcaster L gave great inside into the reasoning for shortening pauses:

> There's a story; I once had a fantastic conversation with one of my guests and he was thinking very slowly the entire time. And we were having a really good time, but in between there was always like three or five seconds of silence. During the conversation that we both had at that moment, it was totally great because it was just such an intense thinking atmosphere. For people listening, it didn't transport at all and they probably would have thought: Oh my God, this is so embarrassing,

now I have to listen to people being silent. So I cut out a lot of two-second silences (laughing). (Musical Podcast 1, 112-118)

Filler Sounds. Filler sounds (e.g. "um" sounds) are similar to pauses – empty in content and less perceptible in direct conversation than when listening to a recording. An accumulation of filler sounds in particular is perceived as irritating by the listener. Filler sounds were removed primarily if they occurred consecutively or several times in a sentence. However, filler sounds can also highlight the more natural rhythm or cadence of speech, which is why podcasters kept some filler sounds in the audio file. Podcasts therefore rarely eliminate filler sounds entirely. The following statements serve to illustrate the podcasters' approach to filler sounds in the editing process:

> And you start counting at some point, then you count 'um' one, two, three. I personally consider that very, very annoying and that's why I cut it out, because if I don't want to hear it, then I can't do it to anyone else. (Podcaster Q, True Crime Podcast 2, 298-300)
>
> So basically I cut out just those things, the 'ums' (laughing) when they creep in. What I do in the meantime is that / I don't necessarily cut out every single 'um', because that almost seems a bit unnatural. We all add that into the conversation when we think and that also gives the listeners a pause for thought. And in this respect, especially in the introduction, when I somehow get an 'um' in there, I leave it in, because I think it's natural. (Podcaster I, History Podcast 3, 294-298)
>
> I don't mind leaving some 'ums' in, if they somehow help to understand that someone is just thinking about something or similar. But there are people who, I

don’t know, have ten ‘ums’ in a sentence. That’s just not nice to listen to. (Podcaster N, Medical Podcast 1, 344-346)

Verbal Errors. Verbal errors can be single words or entire sentences. When the podcaster noticed a verbal error during the recording, the incorrect word or sentence was repeated immediately afterward until the podcaster was satisfied with the statement. In editing, the incorrect word or sentence was then removed, so that only the correct version remained in the audio file, as stated by Podcaster F:

> And what I do during the recording, if I do get tangled up, then just start over and don’t press stop, I then have to - that’s actually the main work - that I have to cut out the first attempt I made. (History Podcast 2, 155-157)

Content Editing. While removing ambient noise, disturbing noises, longer pauses, filler sounds, or verbal errors serve to improve the audio quality and the listening flow, content editing serves to create or shape the narrative of an episode. Content editing can be used for quality assurance, such as removing misinformation, inappropriate wording, and instructions or adjusting the recording file to the desired episode length.

During the recording, the podcaster may unintentionally state misinformation. Additionally, inappropriate wording can cause contextual confusion or clash with the tone of the podcast (e.g. inappropriate jokes). However, misinformation or inappropriate wording was often only noticed by the podcaster during the editing, which is why they either had to be completely removed from the audio or required a re-recording. Moreover, interviewees also reported giving other hosts or guest instructions, like asking for the repetition of a statement, during the recording. Since these are usually irrelevant to

the listener, they were also completely removed from the audio file. The following statements serve to exemplify these practices of content editing:

> [W]hen we're kind of uncomfortable with a statement, which we did on the fly, we're like, 'No, you better cut that out or something, because it's going to lead to much confusion.' (Podcaster E, History Podcast 1, Pos. 237-239)
>
> Of course, when four young to middle-aged men sit together and – we try to make a fairly family-friendly program, because we see Star Wars as a topic for all age groups – it can happen that one or the other borderline offensive joke is made. [...] You could probably leave them in, but what's the point? (Podcaster M, Film Podcast 2, 126-129)
>
> [I]f you start a sentence and say, 'I just tripped over my tongue, I'm going to start over,' I'm removing that as well." (Podcaster C, Film Podcast 1, 277-278)
>
> Or the agreements like, 'Okay, now we still have to do the outro.' That kind of thing has to go. (Podcaster E, Biology Podcast 1, 233-234)

Whereas editing for content quality assurance typically affects every podcast episode, abridging the content of an episode was much less common among the interviewed podcasters. Since the majority only had a loose timeframe regarding their desired episode length, the exact number of minutes was not particularly important, and therefore there was rarely the need to remove (pre-scripted) content from the recording file. In addition, podcasters with a stricter episode length usually adjusted their recording time rather than removing extensive amounts of audio, as stated by Podcaster B:

> And there were only two times, I think, where we really still had topics unresolved that we then simply didn't address. There were one or two times that

> we said, ‘Oops. Oh, we’ll just skip that one coin. Come on. We’ve got such a nice ending right now and we wouldn’t know where to squeeze it in. Let it be.’ But most of the time it’s really like, we just stick to our time, just naturally. (History Podcast 1, 190-194)

The most potentially problematic aspect of content editing usually concerns guests. Removing or rearranging guests’ statements can be considered a form of gatekeeping. Thus, interviewed podcasters usually avoided doing much editing or trimming of guest statements. In most cases, the editing of guests’ statements only involved adapting the flow of speech to the usual podcast standard, like removing filler sounds, longer pauses, or stuttering. If the guest’s remarks nevertheless required more extensive editing, podcasters reported that they edit benevolently, meaning that a guest’s statements or phrases are only removed when they are incorrect or make the guest seem incompetent. In the case of particularly high-profile guests, podcasters also reported that the guest demanded to review and approve the edited episode before it was published. The following statements illustrate said practices:

> And maybe one more thing, when we have guests, we relinquish a bit of this editing sovereignty. So of course we still edit ourselves, but the people can of course listen to it at the end. And depending on that / We’ve already had guests who gave us a lot of feedback and that was simply a lot of work in the end. (Podcaster A, History Podcast 1, 139-142)

> I cut out anything that would make the person I’m talking to look bad. For example, if they spend a long time looking for a name that they should probably

know. Or if there are a few embarrassing moments when they make a terrible mistake, and so on. I cut that out. (Podcaster L, Musical Podcast 1, 106-108)

The conversation remains in the way we conduct it. This often saves us from having to go through approval processes. (Podcaster N, Medical Podcast 1, 328-329)

Additive Editing. Additive editing means adding more audio elements to the recorded audio track. Additive editing usually involves adding intro or outro, commercials, sound effects, or music.

Intro and outro are usually very similar and serve the purpose to structure the episode and distinguish it from other podcasts. While the intro is put at the beginning of the podcast, the outro is put at the end. Intro and outro can be the same for every episode or be complemented by an episode-specific part, for example, a summary of the episode content, announcements or comments on current events and listener feedback. One podcaster suggested, that an episode-specific intro (or outro) can be used to suggest the topicality of an episode although the recording has been made long in advance:

I always have one episode or so as a backup, in case something else comes up, but that's already the maximum. [...] Reason being that I usually always, especially in the intro and outro - well, of course, you could also simply record those - have some announcements or somehow a new book or something else happens. (Podcaster F, History Podcast 2, 199-202)

Sound effects or music were either used as an atmospheric accompaniment or as a separation between segments. Whilst podcasters reported no issue with adding sound pieces, the atmospheric background music was often reported to be problematic, as the

volume adjustment of music, sound effects, and recorded content was corrupted when exporting and uploading the podcast file to the hosting platform. In such cases, background sounds and music were louder than the recorded content, causing the atmospheric audio more disruptive. Therefore podcasters with this issue reported removing the atmospheric music from the episode entirely:

> So the music itself, we took from Anchor. [...] We initially included the music because we liked it. Other podcasts also do this from time to time, that they accompany their stories with atmospheric music. [...] Among other things, we removed the music because of the listener's feedback. However, at some point we noticed that the volume of the background music was somehow increased on Anchor. And then, even though you turned it down to the lowest level, it was still extremely loud considering that at the same time you're talking. And that's why we [removed] that background music. (Podcaster G, True Crime Podcast 1, 318-326)

> I also tried adding a little atmospheric music within the episodes, for example, and I got feedback that some people find that difficult and exhausting to listen to. Because the problem is that if you edit and make everything nice and adjust the volume, but through this exporting and all these filters then also raise certain sounds again […]. Of course, you don't notice that, and then suddenly there's a bang or something, many people don't like that. (Podcaster R, True Crime Podcast 3, 363-367)

Commercials or content for sponsors can either be provided by the advertiser as ready-made audio files or produced by the podcasters themselves (Native Ads).

Podcasters stated that advertisers can purchase the placement of the commercial within the episode – pre-roll, mid-roll, or post-roll. For pre-roll, the commercial is placed before the start of the episode or shortly thereafter; for mid-roll, the commercial is placed within the main part of the episode and for post-roll, the commercial is placed at the end of the episode. This practice is exemplified by the statements of Podcaster F and Podcaster P:

> However, it was the case that they asked me to record it, send it to them and then incorporate it into the episode. Of course, first of all there was the question of pre-roll, post-roll, mid-roll and so on. (History Podcast 2, 271-273)
>
> What's completely new is that now we also assign pre-rolls, mid-rolls or post-rolls, so to speak; that means in the front, middle or back. (Travel Podcast 1, 293-294)

Mixing. Mixing is usually done after subtractive and additive editing and involves leveling the volume between audio tracks. As presenters or guests speak into their microphones from different distances, the volume levels of the different audio tracks have to be adjusted. Otherwise, the listener would have to constantly adjust the volume of their listening device, which is bothersome. Therefore, the volume level of all podcast speakers should be the same. Leveling the volume of the audio tracks is done using DAW software or special leveling programs. One podcaster mentioned the programs The Levelator and Auphonic, which automate the volume leveling process and thus save time:

> And Levelator, that's a software that if you have, let's say, four audio tracks from different sources, it automates the process of raising all of those audio tracks to a similar volume level. As an alternative, there is something like Auphonic, which is also used by many podcasters. It's an online service. It's always a matter of

raising different audio sources to the same volume level, because if you had to do that manually for four hours, then I would actually need a few weeks of editing. (Podcaster M, Film Podcast 2, 350-355)

One podcaster mentioned that podcasts have the standardized volume level -16 LUFS (Loudness Units relative to Full Scale). This volume standardization means that episodes of different podcasts also have the same loudness, so theoretically listeners do not need to change the volume manually during the episode (podnews.net, 2018).

4.3.3 External Editing

External editing means that the editing of the recording file is not performed by the podcasters themselves, but is outsourced to a third party. However, outsourcing the editing involves increased expenses for the podcast, as there are additional costs per episode for the external editor. These costs can only be covered by podcasts that have stable revenue streams or extensive cross-funding.

Of the 15 podcasts studied, only one podcast hired an external editor. This podcaster noted that the main reason given for outsourcing was saving time. It should be noted that the podcaster described this podcast primarily as a marketing tool and cross-financed it through sales of other products. Therefore, expenses for an external editor did not have to be funded through direct revenues from the podcast. Through outsourcing the time-intensive editing, a regular weekly publication could be achieved. In addition, employing an external editor also had the benefit of both speed and a high level of quality:

Editing can simply be time-consuming. And it / You just have to enjoy the medium audio as well. Just like you have to enjoy editing a video. And I enjoy

> doing it, but it takes up a lot of my time. Because I'm also the boss of the company, so to speak, I have to focus on other things. And so it's just one of those things where I say, 'Well, I can do that, and it's fun. But it's half an hour or an hour that just goes away for things that I need or that are more important ultimately for the company.' And so I got a good editor and he does it well. And so I got a good editor and he does it well. He's also much faster at it, because of course I listen to completely different things and am much more meticulous when I do it and remove every little 'um' and every breath. […] And [the editor] just knows where to look. (Podcaster P, Travel Podcast 1, 130-138)

In addition, the podcaster was asked how the external editing of an episode is conducted or what influence the podcaster has on this process. Whereupon the podcaster reported that the external editor was given general instructions that apply to all episodes and is giving episode-specific instructions especially concerning narrative or content-related aspects of an episode:

> Basically, I said in advance that I wanted the interview to sound quite dynamic. Just the whole 'um' or too long pauses. [...] And then, during the podcast session, of course I check: Okay, if I know that there was a mega blooper somewhere, it just doesn't have to be in there. We've been talking some kind of nonsense. Or there was a disturbance somewhere. My partner was gone for a short time, or I was gone for a short time because of the Internet, et cetera, et cetera. A lot of things can happen. Or. I don't know, a helicopter flew right over us and of course that disturbed the interview, so of course I want to get that out. A lot of things can happen. Or. I don't know, a helicopter flew right over us and of course that

> disturbed the interview, so of course I want to get that out. And then I just write that down. I tell my editor. There, there and there was this and that. Please think about how you can cut that out. And then exactly. It's a mixture of both in the end. (Podcaster P, Travel Podcast 1, 143-1583)

4.3.4 Hosting and Distribution

Once the podcast episode has been fully edited, it now needs to be made available to listeners for download via the Internet. This requires a web server on which the audio files can be uploaded and an RSS feed (Real Simple Syndication) which is transmitted to podcatchers or podcast directories. Podcasters now have the option to upload the MP3 files directly to their own web server (self-hosting) or to use a third-party provider (third-party hosting).

Self-hosting is more technically demanding, more complex, and requires a private web server with a large storage capacity. Therefore, only three podcasts out of 15 interviewed podcasts used self-hosting. Podcasters who self-hosted cited control over podcast distribution and low cost as the reason:

> And because it was just the two of us who started it [...], it's kind of our thing and we didn't want to let it out of our hands. (Podcaster E, Biology Podcast 1, 292-294)

> I chose to self-host because I just wanted to keep costs down in the beginning. (Podcaster N, Medical Podcast 1, 385)

Third-party hosting is used by the remaining 12 podcasts. The advantage of third-party hosting is that technical processes such as writing an RSS feed or distributing to podcast directories have been simplified and additional production or distribution features

are usually offered to the podcaster. Third-party hosting can be divided into free and paid hosting services as well as podcast network services. Similar to recording equipment and editing programs, podcasters who choose free hosting stated that the main reason is keeping the costs as low as possible. The most popular free hosting service was Anchor.fm (*n = 3*), which belongs to the Swedish music streaming service Spotify and offers features such as royalty-free music in addition to hosting, as pointed out by Podcaster G:

> [Because] it was free of charge. And because we first wanted to test it for ourselves and not directly take a host, where you then have to pay a lot of money for. [...] And we've just stayed there until now, because we like the conditions, so to speak, of the hosting company. You can also record with the hosting platform itself. You can even use a few different melodies if you want to, that you can add in. (True Crime Podcast 1, 309-313)

Paid hosting services offer various hosting bundles with different functions for a monthly fee. Seven podcasts interviewed used paid hosting services; whereof five podcasts used the hosting platform Podigee and two podcasts used the hosting platform podcaster.de. What is striking here is that both Podigee and podcaster.de, are German hosting companies. Hence, none of the podcasters used an international provider for paid hosting. The decision in favor of a German hosting company was made consciously by the podcasters interviewed, as the hosting services are adapted to German media law, in particular data protection regulations. Furthermore, the interviewed podcasters stated that they have also decided on paid hosting based on additional features (e.g. customizable web player for the website) or recognized statistics (e.g. for advertising partners):

> I am hosting at podcaster.de. And at the time I chose them because they're based in Germany and they were kind of DSGVO compliant (laughing). And anything that can help me with this DSGVO thing is a good platform for now, because nobody understands it. I don't either. And I don't want to be sued because somebody has stored some IP addresses without being allowed to. (Podcaster L, Musical Podcast 1, 266-269)
>
> [T]hey are also a German service and when I started looking around, the plans they offered seemed [...] quite acceptable to me. The prices they charge and the features I get in addition, i.e. the web player, how I can also customize it to the look of my website, things like that. (Podcaster I, History Podcast 3, 488-491)
>
> First of all, they're relatively good, but secondly, their statistics are also very well recognized, for example, in terms of advertising partners and so on. (Podcaster F, History Podcast 2, 249-250)

Two of the podcasts interviewed are hosted via a podcast network - one podcast is hosted by the German provider Julep Hosting and one podcast is hosted by the Swedish company Acast. Besides hosting, the network also offers services such as marketing or advertising partnerships. The offer for hosting was made by the podcast network, because it was either already in a working relationship with the podcaster or because it wanted to expand its portfolio with new podcasts:

> Namely, I am now at Julep Hosting. That's still quite new, very new. Julep is a partner that I work with, it's a small agency that negotiates a bit of advertising stuff and they've just launched their own hosting. Yeah, and then I just moved

over there, meaning I was just offered that I could move over there. (Podcaster R, True Crime Podcast 3, 472-430)

Acast came along a year or two ago. I think it's a Danish or Swedish company. Came to the German market and they had then / At the start, they were looking for different podcasts that they could both promote, but also incorporate into their network, and they contacted us relatively fast. I think we were actually the first ones. We were even one of, I believe, the biggest ones at the time, they told us at Acast. So we were happy to help. (Podcaster S, Travel Podcast 2, 169-173)

4.4 Monetization

The process of monetization was identified as a separate but concomitant process to the production of a podcast episode. Three distinct forms of monetization were identified from the interviews – indirect revenue, crowdfunding, and (native advertising). Many of the interviewees reported using used multiple forms of monetization simultaneously. However, one-third of the podcasters also stated that they were not generating revenue.

Although trends such as "platform enclosure" (Sullivan, 2019, p. 6) increasingly predict limited access to podcasts, none of the participants produced exclusively for a podcatcher or platform. The podcasts interviewed are therefore still a free-access medium that does not generate revenue by default. The decision for revenue was thus made consciously by the podcasters, which means that podcasters had to actively seek out and implement opportunities to generate revenue with their podcast.

While generating revenue is generally not tied to a specific stage of the podcast's development, data showed that revenue is usually not generated until the podcast

becomes more established. Several podcasters reported that they used crowdfunding and donation models already in the early stages of a podcast as there are fewer barriers to access. Since (Native) Advertisements usually require a certain number of listeners or a certain reputation in the podcast's topic niche, their use is indicated by more "mature" podcasts.

All podcasters interviewed, even those who do not generate revenue, were in favor of monetizing podcasts. Revenues were primarily seen as recognition or compensation for the high level of effort involved in producing podcasts and are used to cover costs. At the same time, however, many podcasters also noted that the high quality of a podcast can only be maintained if, for example, revenue compensates for a lack of professional income or the purchase of materials. No podcaster stated in the interview that they started a podcast because of the prospect of income or as an additional source of income. Some podcasters even explicitly distance themselves from the idea of working as a podcaster full-time:

> I don't think I'd like to do that full time. In the far future, I'd really like to do, let's say, a classic mixed calculation. Of course, the podcast and what it stands for is also something that's close to my heart in terms of content. And that should also have a proper place in my life and also a proper appreciation in my working life. And not, after all, a glorified hobby, so to speak, which causes me stress because I somehow once said that every second Tuesday there would be a podcast episode. (Podcaster L, Musical Podcast 1, 216-221)

4.4.1 Podcasts Without Revenue

At the time of the interview, five podcasts stated that they did not generate any revenue. Noteworthy among podcasts without revenue is that these were mostly podcasts that did not regularly publish episodes. Although four podcasts could envision generating revenue with the podcast in the future, concerns are often expressed that revenue also means additional pressure in terms of regular publication and higher criticizability of the content. Only one podcast made a conscious decision not to generate income for this reason:

> [W]e are all people who are basically in the midst of their lives. We all have our normal job, which we also like. And I think our hobby and this podcast is so much fun for us, because we can do it alongside our everyday life and we're not dependent on it. And I think that also contributes to our quality. (Podcaster M, Film Podcast 2, 453-456)

4.4.2 Indirect Revenue

Two podcasts stated in the interview that their podcast was partly cross-financed by the sale of other products. Their podcast served as a marketing tool to draw attention to their own products, such as books or (camping) equipment. Thereby, the podcast does not directly generate revenue but is intended to increase product sales. The higher the sales figures of these products are, the more this profit can be invested in the continuation of the podcast:

> And then just indirect models, that is I sell books, audio books and so on. And especially in launch times, that actually works quite well via the podcast. (Podcaster F, History Podcast 2, 263-264)

> [W]e always try to push people to our products. Whether it is online store or et cetera. Simple; so it's not a direct money making machine, in that case. (Podcaster P, Travel Podcast 1, 290-291)

Indirect income, however, was intended more as a supplement to the expenses of the podcast. Both podcasters, therefore, stated that they additionally pursued direct forms of monetization such as native advertising and crowdfunding.

4.4.3 Crowdfunding

At the time of the interview, six podcasts generated revenue through crowdfunding[27], meaning podcasts are funded directly by the donations/investment of their listeners.

Three podcasts were crowdfunded via the German platform Steady, one podcast was crowdfunded via Ko-fi, two podcasts generated revenue through donations on PayPal and one podcast generated revenue through donations via its own website. Furthermore, one podcast stated that listeners can donate items such as books via an Amazon wish list, which in this context is not considered revenue generation, but should still be mentioned.

Although podcasts can crowdfund via several platforms, the interviewed podcasts tended to crowdfund via only one platform. The German platform Steady was especially popular among the interviewed podcasters because it is more adapted to the German financial system (e.g. taxes), has additional features (e.g. sending newsletters) and high transparency for the donors, as stated by Podcaster I:

> Steady / It's all very transparent. So listeners can see when they go to the page exactly how many other listeners support the podcast. And that can be one of the

[27] A podcast can engage in multiple forms of crowdfunding, such as donations on the website and running an account on Steady.

> reasons why someone then decides: Oh man, I would like to be one of those people. And it's very, very open how much money is donated to the podcast. What they don't see, of course, are the taxes that Steady deducts. Why I used or chose Steady instead of Patreon? Well, because Steady is a German service and it's a bit more easy, for example, with the billing, German sales tax. And Steady, it feels like, is now becoming a bit more popular, than Patreon, especially in the German market. Plus, for example, Steady also has the function that I can also send newsletters via Steady[.] (History Podcast 3, 219-227)

Podcasters who used crowdfunding saw the income generated from it primarily as an appreciation and confirmation of their hard work. However, podcasters rarely produced additional content for their paying audience, either because they do not have the time to produce additional content or because are critical of gatekeeping exclusive content, as exemplified by Podcaster I's statements:

> It's simply that I tell the people or the listeners in the podcast and say: 'If you like, if you want to support the podcast, because I just don't put in any advertising, for your listening pleasure, so to speak. And because there's quite a lot of work that goes into it, literature, sourcing and so on, then you can support the podcast on Steady. And that doesn't mean that I'm withholding content from you.' Well, I also made a conscious decision not to produce exclusive content that is then only accessible if you actually pay for it. Because for me I thought women's history is / It's about visibility and then I don't really want to put in a barrier where parts are then only accessible to those who can afford it and want it. (History Podcast 3, 230-237)

The pressure to publish regularly and produce additional content was the biggest criticism of crowdfunding or the reason why some podcasters decided against crowdfunding. Often, however, this pressure stemmed from the podcaster's own expectations, assuming that listeners expect something in return for their financial support, for example in the form of additional content. However, no podcast interviewed mentioned that paying listeners explicitly demanded this quid pro quo. Podcaster D's statement serves to illustrate the hesitancy of some podcasters to do crowdfunding:

> Well, I also think to myself that if I'm a Patreon or finance something through Steady, I would also want to receive content on a regular basis. Because, for example, if I pay money for a month and don't get a single episode for the whole month, then I would think to myself: Yeah, what am I actually doing this for? And then there's always this pressure; you see how many drop out, how many join. I think that would become too stressful at some point. (Podcaster D, Film Podcast 1, 478-483)

Furthermore, podcasters mentioned that revenues from crowdfunding are uncertain, as paying listeners can drop out and revenues also depend heavily on the target group's ability to donate:

> And then, of course, there's the fact that many of my, in quotation marks, professional audience, I'll put it this way, they haven't exactly had a good time economically either over the last year and a half (laughing). (Podcaster L, Musical Podcast 1, 212-214)

4.4.4 (Native) Advertising

At the time of the interview, eight podcasts were generating revenue through advertising content in their podcast. In this context, podcasters often used the term "native advertising", which can be defined as "the practice by which a marketer borrows from the credibility of a content publisher by presenting paid content with a format and location that matches the publisher's original content" (Wojdynski & Golan, 2016, p. 1403). Native advertising can take various forms, but in most cases, podcasters referred to native ads as short commercials where the podcasters recorded their own advertising clip in return for payment from a company or advertiser.

The creation of a native ad was usually preceded by a selection process of potential advertisers. It is likely that most requests for advertising cooperation come from the companies themselves, as no podcaster explicitly mentioned approaching an advertising partner, but rejecting offers was mentioned several times. Most podcasters who place advertising content on their podcast indicated that they only advertise a product or service if it is considered good quality by the podcaster. They also placed some emphasis on ensuring that the product or service fits the content or topic of the podcast:

> I've also had the option of doing a whole sponsored episode, an interview with a manufacturer; for nutritional supplements which was also scientifically proven, that was important to me. (Podcaster O, Medical Podcast 2, Pos. 216-218)
>
> Well, they were mostly digital products, which I also tested, of course. This insurance app, a book app, that's my topic of course. (Podcaster Q, True Crime Podcast 2, 419-421)

> I always want people to be able to test things, to try things out, and I think it's difficult. I wouldn't advertise things where you would say, 'Okay, if you want to try this out at all, you're going to have to sign a two-year contract that you can't get out of.' (Podcaster R, True Crime Podcast 3, 513-516)

Although hardly any podcasters explicitly addressed the pricing policy of their native ads, it can be assumed that the prices for ad length and ad placement are also determined in the selection phase of a company. For ad placement, the company can usually choose between pre-roll, mid-roll, or post-roll.

Once a podcaster has agreed to a cooperation, the company usually provided a briefing for the podcaster. In the briefing, the podcaster was given information about the product, service, or company that is to be included in the recorded commercial. Whether a podcaster had great creative freedom or used strongly predefined material depended on the company. The following statements illustrate the briefing practice:

> So I got a briefing, but in all cases it was more like core points that they wanted to have mentioned. However, not in a particular wording and not strongly pre-scripted in any way. (Podcaster F, History Podcast 2, 269-271)

> [T]hey are native ads. So we record them ourselves. And we're told exactly what it's about, then we try to make a little story around it ourselves, but we mainly say what we're given. (Podcaster K, History Podcast 4, 253-254)

> And then I just got a briefing, it just stated what should be mentioned. (Podcaster Q, True Crime Podcast 2, 421)

After the briefing, the podcaster recorded the commercial in their own words and then sent it to the advertising company for review and approval. Once the company gave

its approval, the podcaster could insert the promotional clip into the episode at the location reserved by the company, and the episode was published. The statements from Podcaster Q and Podcaster S exemplify this practice:

> I recorded that, uploaded it, the client listened to it, approved it, then I just edited it in. (True Crime Podcast 2, 421-422)

> The only thing is that we have the commercials, which are usually between 60 and 90 seconds long. We'll send those to them, for approval. And they are then incorporated into the episode in which the data is booked. (Travel Podcast 2, 219-221)

In addition to the advertising clips narrated by the podcasters themselves, podcasters can also run traditional advertising clips or dynamic ads. However, the use of traditional commercial spots ($n = 1$) or dynamic ads ($n = 1$) was considerably less common than native ads ($n = 8$). The traditional commercial refers to an audio file pre-produced by the advertising company, which the podcaster incorporates into the episode according to the booked ad placement, as described by Podcaster Q:

> Well, I once had the first version, which I think was from Magenta Telekom. This was ready-made, you got the MP3 or something, you just edited it in, as it was. (True Crime Podcast 2, 415-416)

Dynamic Ads are automatically integrated into the podcast. Similar to native or traditional ads, the podcaster sets a time slot in the episode where the dynamic ads will be inserted. However, with dynamic ads, the ad clips are not inserted by the podcaster but are inserted into the episode by an external server at the time the listener downloads the

episode. Dynamic ads are therefore tailored to the specific listener and are dependent on the time of the download. Podcaster R describes the use of dynamic ads as follows:

> Exactly, and there's now also the possibility, as with YouTube, of placing dynamic ads, which are these small commercials that are placed at the beginning or in the middle, depending on where you place them. Exactly, so that's also another possibility for generating revenue. […] Exactly, they are indeed dynamic clips and they are also / What they are probably inquiring about? So somehow gender, and listening habits customized. And then in a year another clip will run. I think so. Depending on how long, they lodge in there too[.] (True Crime Podcast 3, 471-474; 530-532)

In addition to advertising clips, podcasters can also produce an entire episode for an advertising company, i.e. sponsored episodes. Sponsored content also belongs in the category of native advertising. In contrast to short native ads, where the topic of the episode is relatively independent of the advertising placed, the topic of the episode is influenced or determined by the advertising company (e.g. episode topic: nutritional supplements, sponsor: manufacturer of nutritional supplements). However, of all the podcasts interviewed, only one podcast explicitly mentioned to offer this option[28]:

> There is the possibility to record a whole episode with me and just record it as a sponsored episode, like an interview or I am dealing with the topic. (Podcaster O, Medical Podcast 2, 222-224)

However, the possibility of generating income through (native) advertising was reported to be linked to the number of listeners. The more a podcast is listened to, the

[28] Another podcast noted co-producing some episodes with companies. However, it was not specified whether these were sponsorships.

more attractive it is for the advertiser. Podcasters interviewed often mentioned, that they only have a few cooperation requests since they do not meet the number of listeners desired by the advertiser:

> And the second reason is that we don't have nearly enough listeners for that. So I think we are completely uninteresting for advertisers. (Podcaster C, Film Podcast 1, 486-487)

> So I theoretically have sponsors [meaning advertisers], not too regularly. Which is also simply due to my size. Well, I have a good number of listeners, but / Often the companies tell me 30,000 plus per episode, but I am not there yet[.] (Podcaster F, History Podcast 2, 258-260)

However, one podcaster also expressed strong criticism that listener numbers are not the only way to measure the advertising effectiveness of a podcast and that the German podcast advertising market still lags behind the American model:

> If you look to the USA and so on, it's of course a completely different story. If you have a large podcast, it's also a completely different story. But unfortunately it's still the case that podcasts are not seen in the way they should be, that they reach a real target group and reach them very directly. Not like an advertisement on the radio, which costs you thousands and with podcasts nobody wants to have a budget for[.] (Podcaster P, Travel Podcast 1, 302-307)

However, monetization through (native) advertising is not only viewed positively. Some criticism was voiced by the podcasters concerning the independence of a podcast, which could be eroded through the use of advertising:

I think you also have to say that we are both a bit reluctant to look for sponsors or to advertise in general, because it is also important to us that we have this scientific aspect in it and this scientific independence in it. And we don't want to jeopardize that in a certain way. (Podcaster A, History Podcast 1, 315-317)

But we just found it difficult to advertise. Why was that? In the beginning, we received a lot of advertising requests from companies that work in temporary employment, for example, and we said: No, we don't want to advertise something that we ourselves consider stupid. And, of course, we always have the problem that we want to be reasonably independent. So I don't know, I can't advertise for the Helios Group if I actually think Helios sucks, I don't want to do that. And that's why we've actually canceled a lot of advertising deals. (Podcaster N, Medical Podcast 1, 402-408)

Chapter 5: Discussion

Due to the lack of academic literature on podcast production, hypotheses could not be derived. But the literature helped to guide the research interest based on various presuppositions. As stipulated in the definition and history of podcasts section, podcasts are regarded as an independently produced media form that should be considered separately from radio or broadcast production (Berry, 2018, p. 26). Podcasts produced by a broadcaster or radio station were therefore not included in this study. The second assumption drawn from existing literature is that podcasts have a certain seriality (Bottomley, 2015b, p. 166). For the study, this meant that podcasts had to have a minimum of fifteen episodes already produced and they had to be active at the time of the interview. The results of Markman and Sawyer (2014) and Attig (2020) also gave important socio-demographic information such as age or gender distribution within the (German) podcaster community, which was accounted for in the theoretical sampling process for the interviews.

Based on the empirical data, as well as prior knowledge derived from literature and best practice guides, the processes and practices mainly surround the production of a podcast episode. The production of an episode is thereby a somewhat linear process that can be divided into three main stages - pre-production, recording, and post-production. Additionally, the process of monetization was identified as a separate but concomitant process to the linear production process.

5.1 Pre-production

Pre-production is the first stage of the production process of a podcast episode and encompasses the sub-processes of choosing episode topics, (literature) research, recruiting guests, and writing a podcast script.

In her study, Attig discovered that the average pre-production and post-production time of a German podcast is around six hours, but she does not separate these processes (Attig, 2020, p. 8). However, the results of this study show that pre-production and post-production are very different. Furthermore, Attig's results lack data on the average episode length of a podcast - a 30-minute podcast required less preparation and editing time than a 90-minute podcast[29]. Information on the average episode length would therefore put the average pre-and post-production time into more perspective. Moreover, Attig mentions in the method section of said study that she also asked podcasters how they would rate the effort required for preparation and editing (Attig, 2020, p. 4). Unfortunately, she did not report the data for this item, hence no comparision between her study and this research can be drawn.

The pre-production stage for most podcasters starts with the selection of the episode topic. Contrary to expectations, very few of the podcasters interviewed used a pre-planned episode schedule. Instead, most podcasters decide on a topic rather spontaneously and shortly before recording. Since Lührmann pointed out a high level of professionalization in the German podcast market, it was expected here that the process of planning episodes was more formalized (Lührmann, 2019, pp. 34–35). However, since the majority of respondents practiced podcasting as a hobby in their leisure time, a

[29] This information is based primarily on interview participants' statements who produced the episodes in linear succession. The data might be different for season-based podcasts, for example.

regular, weekly publication may not have been the right fit, as this requires a lot of additional work.

To choose an episode topic, most podcasters rely on a topic pool that is composed of their own ideas and listener submissions. Listener ideas, however, are rarely turned into episodes, which roughly corresponds to Attig's findings that state that although podcasters feel strongly connected to their audience, they would rate interaction with their listeners as low (Attig, 2020, p. 8). However, Markman and Sawyer's study suggests that listener involvement might be higher in the U.S., as more than half of the podcasters surveyed said they included listener requests in their podcast (Markman & Sawyer, 2014, p. 27).

The topic selection is usually followed by research and the recruiting of guests. Regarding the literature research process, many podcasters highlighted the quality of their sources and information presented, which can be attributed to the high level of education of the podcasters interviewed, as about three-quarters of the participants have at least one university degree. Many podcasters linked their academic background (e.g. history, psychology) to the topic of their podcast, so misinformation in the podcast could reflect poorly on the academic career and therefore high attention is paid to the quality of sources.

When recruiting guests, cross-promotion and topic expertise are the key considerations. The main goal of cross-promotion is to exchange or attract listeners, which is why cross-promotion generally only involves the cooperation between podcasters. The importance of cross-promotion to expand audiences is also addressed by Sullivan, who notes that "the key for independent podcasters [is] to find ways to market

yourself through other media (including more popular podcasts), since cross-promotion [is] the only way to get known by audiences" (Sullivan, 2018, p. 47). However, while Sullivan's statement suggests that it is the task of the less popular podcast to seek out a more popular podcast for collaboration, the results of this study indicate that, at least for the German market, the wish to collaborate often stems from more established podcasts. Furthermore, altruistic motives or friendships between podcasters play a more important role in collaborations than Sullivan's statement suggests. However, Attig also discovered in her study that podcasters feel more connected to listeners than to the podcaster community (Attig, 2020, p. 8). Yet this does not contradict the statements of the interviewees, as contact to other podcasters was primarily sought within the subject niche and not to podcasters in general.

Regarding topic expertise, both knowledgeable podcasters and external experts (without their own podcast) were invited onto the podcast as guests. Compared to other podcasters, external experts might pose a greater risk during the recording, for example, due to frequent filler sounds or lack of speed flow. Yet in most cases, they also possess a higher level of expertise and prestige. Out of 15 podcasts interviewed, only three podcasts had no guests at the time of the interview, meaning that compared to the figures from Markman and Sawyer, the incorporation of guests has greatly increased[30] (Markman & Sawyer, 2014, p. 27). A possible rationale for this increase is that over the nearly ten years between Markman and Sawyer's survey and the interviews for this thesis, guest episodes have become more popular. Another reason might be that podcasts have also

[30] Markman and Sawyer (2014, p. 27) report that 66.7 percent of the podcasters surveyed incorporated guests in their podcasts. Although the sample of this study is considerably smaller than Markman and Sawyer's, the nature of qualitative interviews helped to better explore the importance of guest appearances and allows conclusions to be drawn about current podcast trends.

become more accessible and mainstream, therefore external experts might be more willing to be a guest on the show. A third reason could be that compared to 2012, when Markman and Sawyer conducted their survey, there is simply a greater number of podcasts that can host guests.

Writing a podcast script was identified as the third and final step in the pre-production stage. Three forms of podcast script were identified - flowchart, notes, and full script - however, they might be thought of as the beginning, middle, and end of a spectrum rather than distinct forms. The flowchart is the simplest form of podcast script and only roughly describes the planned chronological structure of the podcast episode. Due to the high level of uncertainty during the recording, however, a flowchart that only rudimentary outlines the structure of the podcast episode is rarely used by podcasters. Most popular with podcasters is the use of notes, usually in bullet point format, as it provides open conversation during the recording but also content confidence. A fully-formulated script is used primarily by one-host podcasts, which use the script to put the information into an arc most interesting to the listeners. Bottomley as well as Dowling and Miller made similar observations regarding the use of scripts in terms of podcast narratives (Bottomley, 2015a, p. 185; Dowling & Miller, 2019, pp. 174–178). The more important a specific story arc is for the narrative of a podcast, the more it is scripted. Podcasts with a heavier focus on conversation, such as interview formats, are usually less scripted. Nevertheless, it should be noted here that the authors drew conclusions from the content of the episode to the production.

5.2 Recording

The recording is the second stage of the production process of a podcast episode and is a singular process. While pre-production is more dependent on soft skills like creativity and organization, recording and the subsequent post-production requires more technical skills and knowledge. Many of the interviewed podcasters rely on Internet sources or recommendations of other podcasters when starting a podcast, since many of the podcasters had no prior experience in audio or radio. Therefore, podcasters have to teach themselves how to podcast, especially concerning more the technical aspects. Podcasters will thus draw on sources similar to those used for the interview questions of this thesis. Furthermore, the how-to guides and online articles are mostly written by people who have a podcast themselves, therefore the processes described usually have practical relevance.

This research revealed that a podcast can be recorded either stationarily or mobile, and that a podcast can be recorded in joint physical presence or remotely. Most interviewed podcasters recorded stationarily, meaning they record their podcast from one location. The stationary recording is mainly done at home, preferably in rooms with lots of textiles that are supposed to dampen the reverb like living or bedroom. These findings are similar to Lührmann who stated that the use of a sound studio is rather atypical for independently produced podcasts. However, with increasing professionalization, more podcasters are investing in a private recordings studio, as the music and podcast producer interviewed for this study show. Lührmann also indicated that not all episodes of the podcast she examined are produced in the same location, therefore she might refer to what this thesis defines as mobile recording (Lührmann, 2019, p. 52). In contrast to

stationary recording, mobile recording is mainly chosen when visiting a guest on location, which is why it is most common in interview-heavy podcasts. Mobile recording has the advantage that the podcaster can use his own equipment for the recording to ensure consistent sound quality. However, mobile recording usually requires additional audio equipment and traveling is more time-consuming. Due to COVID-19 contact restrictions, podcasters who otherwise recorded mobile had to switch to remote recording. Remote recording takes place between geographically dispersed podcasters or guests who are connected via a video conferencing tool. Remote recording usually requires no extra equipment, however, it is more dependent on the technical know-how of participants and a working internet connection. If podcast hosts or guests live in close geographical proximity, the podcast is usually recorded jointly.

The tech-savviness of podcasters as identified by Attig and Markman and Sawyer (Attig, 2020, p. 8; Markman & Sawyer, 2014, p. 27), was primarily reflected in the interviewees' use of recording equipment (and also editing software). Nearly one-third of the podcasters surveyed have upgraded their recording equipment during the course of their podcasting. In addition, many of the podcasters were familiar with the functionality of their equipment, some even went into great detail. In contrast, only four podcasters could not name the exact type of microphone right away and only one podcaster stated that they have bought unsuitable equipment.

In his first study on podcasting, Markman pointed out that "it was relatively low cost, flexible, and easy to enter" (Markman, 2012, p. 555). Lührmann similarly describes the easy accessibility of podcasts because of the broad availability of affordable hardware and software for audio production (Lührmann, 2019, p. 52). However, the results of this

qualitative study indicate that due to the increasing professionalization and the importance attached to good audio quality, podcasting is becoming less accessible for people with less disposable income due to the considerable investment in audio equipment. Furthermore, this study has also shown that podcasting also requires long-term investment, for example hosting fees.

More than half of the podcasters interviewed for this study used a condenser microphone, whereby most of them were USB microphones. Only one-fifth of the podcasters used a dynamic microphone, all of which are XLR microphones. Additionally, six podcasts stated that they use an audio interface. However, it should be critically noted here that qualitative interviews are only partially suitable for requesting such information. Because of the time constraints of a master thesis, the interviews had to be conducted in a relatively short time frame compared to average Grounded Theory standards. Yet, the technological understanding of the importance of different microphones types for the recording process developed much later in the research process. Whereas it was considered sufficient during the interview to only name the brand of the microphone, in the later analysis it became evident that only the complete microphone type allows conclusions to be drawn for the production process. Four podcasts could therefore not be properly classified.

The process of recording is started by making the recording room as quiet as possible. Simultaneously, the audio equipment is set up and checked for functionality. Thereafter, the recording of the episode begins. As Berry has already pointed out, "[p]odcasting is a medium that is sonically influenced by radio" (Berry, 2018, p. 16), and therefore it is not surprising that podcasters consciously or subconsciously adapted their

way of speaking during the recording to what they think listeners expect. For example, podcasters adapted certain breathing and pronunciation techniques, adopted a calmer pace of speech, and deliberately suppressed the use of filler words. However, none of the interviewed podcasters mentioned adapting a particular way of speaking because they wanted it to sound like radio. Podcasters were much more guided by the content of other podcasts, which can be seen as an empirical evidence for what Berry described as “an increasingly distinct identity [of podcasts]” (Berry, 2018, p. 16).

5.3 Post-production

Post-production is the third and final production step in the creation of a podcast episode and involves the editing and uploading of the finished podcast episode to a hosting platform. Similar to the recording stage, the editing stage aligns with the processes illustrated in how-to- and best-practice guides and is strongly dependent on technical equipment and the podcaster's technical understanding.

Central to the editing process is the use of an audio editing software referred to as Digital Audio Workstation (DAW). The most widely used editing software among the interviewees was the open-source editing software Audacity, which was used by nearly half of the podcasts. The open-source extension Ultraschall for the paid audio software REAPER is the second most used editing software. Concerning the frequent use of open-source software, Lührmann notes that this highlights the origins of podcasting as a grassroots medium driven by the produsage of a tech-savvy community (Lührmann, 2019, pp. 52–53). In addition, Lührmann notes that podcasting became accessible to laypeople primarily because of the availability of affordable and user-friendly hardware and software for audio production.

The editing process is a predominantly subtractive process involving the removal of ambient and disturbing noise, long pauses, filler sounds, or verbal errors as well as the restructuring of content. Monotonous sounds that run through the entire recorded audio file (ambient noise) are usually eliminated via filters, while short-term, loud noises (disturbing noise) are trimmed from the audio file. Pauses, filler sounds, and verbal errors are content-empty and usually interrupt the flow of listening, yet they also emphasize the naturalness of the speech, therefore they are usually reduced but not completely removed. The content of a recording is mainly edited to remove misinformation and confusing or inappropriate statements. As Spinelli and Dann noted, a podcast episode "can be as long as they need to be" (Spinelli & Dann, 2019, p. 8), and the interviewed podcasters therefore rarely cut content from the episode to adhere to the desired length.

Additive editing processes usually involve adding intro and outro, sound pieces or music and commercials to an episode. It was not surprising, however, that some listeners responded negatively to the incorporation of ambient music or sounds, since "[t]he core medium of podcasting is the human voice" (Dowling & Miller, 2019, p. 171) or as Lindgren puts it, "podcasts are built on oral traditions and are therefore obviously driven by voice" (Lindgren, 2016, p. 26). The strong emphasis on voice further demonstrates the "increasingly distinct identity [of podcasts]" (Berry, 2018, p. 16). The results show that listeners already have a narrower set of expectations of podcasts than what the comprehensive definitions of the academic context might suggest. If a podcast deviates from this expectation, the listeners sanction the podcast, for example, by negative feedback or by stopping to listen.

The mixing process is done after subtractive and additive editing and involves leveling the audio tracks. Here, it should be pointed out critically that the question regarding the editing process was too focused on content. The empirical data suggest that the mixing process is a relatively standardized process that requires little creativity, which is why the participants were perhaps less aware of this process during the interview and therefore did not make any statements. Since mixing was not identified as a distinct process until after the interviews were completed, the questions could not be adapted, so that processes such as leveling were explicitly asked.

Of the 15 podcasts studied, only one podcast hired an external editor. Overall, hardly any tasks were outsourced within the interview group - all interviewees were involved in all processes of the podcast. One reason for this might be that the majority of podcasters interviewed did podcasting as a hobby, and therefore there is no desire to outsource processes of their hobby and relinquish control. Additionally, the income from their podcast would probably not cover investments in the regular outsourcing of production processes. Attig's survey about German podcast producers shows that a majority of podcasts are produced privately and independently, and less than ten percent of podcasts are commissions or part of gainful employment (Attig, 2020, p. 7). Therefore, it is feasible that labor division or outsourcing might be more extensive in commissioned podcasts than in private podcasts.

The final step in the post-production process is uploading the podcast to a hosting platform. Uploading to the hosting platform is also considered the last step in the production of a podcast episode, as all subsequent processes are more concerned with the distribution and marketing of podcast episodes than the actual production. Additionally,

the distribution of podcasts is already fairly well researched (Sullivan, 2019) and data on how German podcasters use podcatchers (Attig, 2020, p. 7) has also been collected – hosting and podcatcher usage has therefore not been the research gap that this thesis tries to close. Among the interviewed podcasters, 80 percent chose third-party hosting and 20 percent chose self-hosting. Interestingly, third-party hosting services were predominantly German providers, since they offered accepted statistics for advertisers and ensure compliance with German data protection laws.

5.4 Monetization

Among the group of podcasts interviewed, two-thirds generated revenue, while one-third did not. These results are in stark contrast to the findings of Attig, in which roughly 75 percent of the 940 podcasts surveyed reported no monetization (Attig, 2020, p. 7). While Attig recruited the survey participants anonymously via Twitter and in the German podcast forum Sendegate, the participants in this thesis were recruited via direct interview requests based on podcast library fyyd's catalog. In the latter case, a certain selection process was performed by the author. For example, attention was paid to an appealing web presence of the podcast, as this suggests professionalism or, conversely, a routinization of the production processes which was required to answer the research question. Therefore it is possible that the sample of this study already had a high level of professionalization and commercialization.

The skepticism toward the monetization podcast described by Attig was encountered in this study, however, podcasters were more skeptical about the different monetization options such as (native) advertising or crowdfunding than generally opposed to the idea of generating revenue (Attig, 2020, p. 11). Six of the interviewed

podcasts used crowdfunding or donation models and eight podcasts used (native) advertising. Four podcasts used both monetization methods simultaneously, whereas only two podcasts exclusively used crowdfunding and four podcasts exclusively used advertising. In her study, Attig initially designed the question concerning monetization options as single choice, which she adjusted to multiple-choice due to respondents' comments (Attig, 2020, p. 4). In her findings, however, Attig does not revisit the fact that podcasters can use multiple ways of monetization simultaneously (Attig, 2020, p. 7).

All interviewees in the group of podcasters who monetize their podcast with advertising use native advertising. Those findings are in line with results from Domenichini, whose results show that German listeners favor native advertising over sponsorships or traditional advertising commercials (Domenichini, 2018a, pp. 584–585). Although no statements were made about pre-roll, mid-roll and post-roll pricing in the interviews, studies on podcast advertising (Ritter & Cho, 2009, p. 536) revealed that advertising at the beginning of the podcast is rated more positively by listeners, which in turn allows the assumption that podcasters might charge more money for pre-roll placement than for mid- or post-roll. Traditional commercials, dynamic ads or sponsorships were used by only a very few podcasters, which might indicate that the advertising market for German podcasts is not fully developed yet.

Chapter 6: Conclusion

This thesis addressed the question of which processes and practices constitute the production of German podcasts and podcast episodes and aimed to close the existing research gap in the field of podcast production, as most of the existing academic literature only addresses the definition of podcasts, historical development, or analysis of listener demographics and usage behavior. Similarly, since the field of podcast research is strongly Anglo-centric, with a particular focus on the U.S. market, this research also provides inside into a non-English speaking podcast culture. To answer the research question – what processes and practices constitute the production of a German podcast (episode) – a qualitative research design was chosen in which semi-structured interviews were conducted with 19 German podcasters from 15 different podcasts, and the empirical data was analyzed using Grounded Theory. The study's results show that podcasting is mainly concerned with the linear process of episode production – which can be divided into pre-production, recording, and post-production stage – and monetization. Each stage is composed of a variety of sub-processes and practices that interact. The results also indicate tension in the production processes of German podcasters between increasing professionalization and the casualness of podcasting as a leisure activity.

The findings of this study provide context for a deeper understanding of the production processes and practices of German podcasters. Shortcomings, for example, in Attig's (2020), study clearly demonstrate that the qualitative understanding of production processes and practices can benefit both the construction of a quantitative research design as well as the interpretation of statistical data. In addition, studies that focus on the content of podcast episodes, such as Dowling and Miller (2019) or Lindgren (2016),

benefit from insights into production processes and practices, as relationships between conclusions can now be drawn from production and content can be deduced.

However, the findings of this study must also consider some limitations. First, due to the formal time restrictions of a master thesis, a conventional theoretical sampling was not possible[31]. For this study, the sampling and interviewing were conducted within two months, as this ensured that the required minimum number of 15 different podcasts was achieved. During the sampling and interview period, a general effort was made to approach podcasts that feature different topic focuses, formats, and host demographics. However, participation in the interview was ultimately decided by the podcaster themself. For instance, efforts were made to recruit podcasters that focus on family or business, yet no podcaster in this realm agreed or found time to be interviewed. In contrast, four podcasts with a focus on history agreed to be interviewed, which accounts for a large portion of the sample. Second, the empirical data of this interview is based on podcasters' self-reports. As such, statements could be influenced, for example, by the fact that podcasters want to express what they think the interviewer wants to hear or by what they think other podcasters have answered. Studies with more time for research could therefore complement the interviews, for example, by observing the processes on-site, which was not possible here given the time constraints of this thesis as well as the contact restrictions due to COVID-19. Lastly, it should be mentioned that the findings are a snapshot of current podcast processes and practices focusing heavily on German independent podcasters. The emergence of new technology and software may change

[31] For example, Bluff's (2005) study on the role of midwifes had a similar research design – qualitative interviews and an evaluation using the grounded theory approach – but was conducted over a period of more than three years.

production processes in the future. Furthermore, production processes may be different, for example, in the case of broadcast productions for public broadcasters.

For future research, the results of this study provide a basis for comparing podcast production and radio production, which could further support the distinction between these mediums. Moreover, the results of this thesis can be used to compare independent podcast production to commissioned production. Due to the focus on German podcasters, a comparison of the production practices of other countries and language areas, e.g. France or Mexico, could also be interesting for future research and might also help to explain differences in national audience statistics. As the broadcast saying goes, stay tuned.

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Appendix A

Table 1

Guided Interview Questions

Cluster	Questions	Notes/Info	Source
Starting a podcast	• Why did you want to do a podcast? • How did you acquire knowledge about how to do a podcast? • How did you decide on what topic the podcast should be about? • How would you describe the format of your podcast?		
Podcasters Habits	• How much (time) do you listen to other podcasts? • What categories do you listen to most?		
Deciding on the podcast subjects/ Inspiration	• How do you decide what subjects the podcast (episodes) should be about? • Do you draw inspiration from other podcasts?		
Length and Frequency	• Your podcast is on average XX long. Did you decide on this length or what factors influence it? • Your podcast publishes every XX. How did you decide on this frequency and what factors influence it?	• average = 45 min • short episode = under 15 min • long episode = over 1 h • seasons (average 6-12 episodes)	(Thorpe, 2019, p. 10) (Gray, 2021)

(continued)

Cluster	Questions	Notes/Info	Source
Team	• How many people work on the podcast? What are their areas of responsibility? • How many people host the show? • (Whats is special about working with guests? What difficulties arise when working with guests?)	• formats: solo show, co-hosted show, interview show • with or without guests	(Gray, 2021)
Location	• Where do you produce your podcast (e.g. at home, studio)? • Do you record at different locations? • What do you do to improve sound quality in your location?	• studio • small room, minimal furnishing • foam panels	(Thorpe, 2019, p. 16)

Resources	• What recording equipment do you use (e.g. microphone, pop-filter, headphones)?
	• What criteria do you look for in recording equipment?
		• USB microphone
		  o cheaper, plugged in directly into the computer for recording
		• Analogue microphone
		  o more expensive, require XLR connector/interface for recording, better audio quality
		• directional microphones (only pick sound from a specific, keep background noise to minimum)
		• dual lapel microphone
		• popfilter = reduce popping sounds from speech (are cheap)
		• headphones
		  o helps to hear own voice and background noise
		• mixing desks (to balance sounds from different microphones)
			(Thorpe, 2019, pp. 11–12) (Buzzsprout, 2019a)

(continued)

Cluster	Questions	Notes/Info	Source

	• What editing equipment/software do you use?
	• How did your equipment change over the course of doing the podcast (e.g. more tech, expensive tech)
		• DAW (Digital Audio Workstation)
		  ○ capable of editing multiple audio tracks + non-destructive editing
		  ○ Adobe Audition (monthly subscription)
		  ○ Garadgeband (Apple, free)
		  ○ Pro Tools
		• Audio editor
		  ○ Only edit a single clip at a time + destructive editing (=every change is applied to source file)
		  ○ Audacity (open source software, free)
		  ○ Sound Force
			(Thorpe, 2019, p. 12)
			(Buzzsprout, 2019b)

Time	• How long does the preparation/research for an episode take? • How long does the recording of the podcast take? • How long does the editing of the podcast take? • Do you record a bunch of episodes in one session or according to frequency (meaning for a podcast once a week, there is one recording a week)?	• editing takes on average 3x the time of final length (30 min episode = 1.5 h editing)	(Thorpe, 2019, p. 13)

(continued)

Cluster	Questions	Notes/Info	Source
During the Recording	• What techniques do you use when speaking into the microphone (voice, mic angle)? • How scripted is the podcast (estimated percentage)? • What issues have you experienced during recording? • Do you have a backup when recording (meaning recording on a second device)?	• very loose script with only a few notes vs. entire passages that are read aloud • voice (e.g. speaking slower, darker than usual) • on-axis recording = mouth straight to microphone (brightest recording, but also harsh) • off-axis recording = microphone angled to mouth (less sensitive to high frequencies)	(Thorpe, 2019, p. 17) (Buzzsprout, 2019a)
During the Editing	• What are your stages of editing (editing, mixing, mastering)? • What are your criteria when editing (meaning what decides what is cut out and what stays in)? • Do you use music or other "sound pieces" in your podcast and why? • What issues have you experienced during editing?	• Editing = subtractive process of trimming raw recording + add sound effects, music, prerecorded advertising • Mixing = tonal adjustments + noise reduction + reduce sound file to single stereo track • Mastering = adjusting sound and level of final stereo file • editing out pauses, "ummm", coughs	(Thorpe, 2019, p. 21) (Buzzsprout, 2019b)
Distribution	• How do you distribute your podcast/what podcast hosting services do you use? • What made you decide for the hosting platform (e.g. best insides, price)? • What are the primary apps your audience uses to listen to the podcast?	• Hosting plattforms: blubrry, buzzsrpout, castos, Podiant, SOundcload, Podbean, Speaker, libsyn, simplecat • Apps for listening: Spotify, Google Play, Stitcher, TuneIn, Acast	(Thorpe, 2019, p. 25)

(continued)

Cluster	Questions	Notes/Info	Source
Revenue	• How do you generate revenue (e.g. ads, sponsorship)? • Have you contacted the advertiser or did the advertiser contact you (percentage if more than 1 advertiser)? • How much material/information/rules does the advertiser send you/Do you have to send the episode in advance to the advertiser to get approval?	• baked-in ads: encoded into the podcasts audio file, read aloud by hosts (sometime pre-recorded) • programmatic ad insertions: ads are inserted dynamically at point of download • full sponsorship: of one episode or series of episodes • crowdfunding, live events, merchandise	(Thorpe, 2019, p. 35)
Opinion	• Do you feel you are in competition with other podcasts? • In your opinion, what is the most important part of having/making a podcast? • In your opinion, what is the most difficult part of having/making a podcast?	•	

Appendix B

Table 2

List of Podcasters

		Name (anonymized)	Gender	Age	Education	Profession
History Podcast 1	Podcaster A	Leah Hoffmann	female	26	bachelor's degree	student
	Podcaster B	Jan Thalberg	male	27	master's degree	research assistant, doctorate
Film Podcast 1	Podcaster C	Sabrina Adler	female	35	master's degree	research assistant, doctorate
	Podcaster D	Lukas Reinhard	male	35	advanced technical certificate	call center employee
Biology Podcast 1	Podcaster E	Martin Ziegler	male	32	PhD	research assistant
History Podcast 2	Podcaster F	Paul Zimmermann	male	32	master's degree	historian
True Crime Podcast 1	Podcaster G	Juliane Ackermann	female	30	bachelor's degree	human resources specialist in digital agency
	Podcaster H	Diana Schuster	female	32	secondary school certificate	service employee for baby products manufacturer
History Podcast 3	Podcaster I	Christina Biermann	female	36	master's degree	journalist
History Podcast 4	Podcaster J	Jonas Fleischer	male	25	bachelor's degree	student
	Podcaster K	Michael Kunze	male	29	bachelor's degree	student
Musical Podcast 1	Podcaster L	Kathrin Gerber	female	30	master's degree	dramaturge
Film Podcast 2	Podcaster M	Maximilian Vogel	male	38	higher education entrance qualification	music and audio producer

(continued)

		Name (anonymized)	Gender	Age	Education	Profession
Medical Podcast 1	Podcaster N	Dominik Lehmann	male	36	master’s degree	self-employed as podcast producer
Medical Podcast 2	Podcaster O	Anne Freud	female	27	master’s degree	personnel marketing officer
Travel Podcast 1	Podcaster P	Sebastian Klein	male	35	bachelor's degree	self-employed entrepreneur/operator of online store for camping articles
True Crime Podcast 2	Podcaster Q	Nadine Ackerman	female	32	no specification	orthoptist
True Crime Podcast 3	Podcaster R	Andreas Koehler	male	34	bachelor's degree	fleet manager
Travel Podcast 2	Podcaster S	Robert Maur	male	33	bachelor's degree	online marketer

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